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### LSU General Catalog 2018-2019

Louisiana State University and Agricultural and Mechanical College

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### Louisiana State University

This *LSU General Catalog* serves as both the undergraduate and the graduate catalog of LSU. Detailed descriptions of all degree programs offered through the Graduate School, regulations, and degree requirements pertaining only to graduate students are found in the section "The Graduate School."

#### **Statement of Accreditation**

Louisiana State University and A&M College is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award baccalaureate, master's, and doctorate degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Louisiana State University and A&M College.

### Student Responsibility

Each student is personally responsible for completing all requirements established for his or her degree by the university, college, and department. It is the student's responsibility to learn these requirements; a student's advisor or counselor may not assume that responsibility. Students should also be aware that ignorance of a rule is not justification for waiving the rule.

Any substitution, waiver, or exemption from any established departmental or college requirement or academic standard may be accomplished only with the approval of the dean of the college offering the major. Exceptions to university requirements, including general education requirements, will be authorized only with the recommendation of the dean of the college offering the major and the approval of the Office of Academic Affairs.

Each student must see an academic counselor or coordinator in the dean's office offering the major to review and sign a final degree audit report during the semester *prior* to the semester in which the degree is to be awarded. See the degree requirements sections in the individual college chapters in this catalog to determine if degree check-out is required earlier than the semester *prior* to the semester in which the degree is to be awarded.

Effective date of this catalog: Fall 2018

## Academic Calendar, 2018-2019 Fall Semester 2018

AUGUST	9-10	Thu-Fri	International Student Orientation
	13-16	Mon-Thu	Freshman and Transfer Orientation
	15	Wed	New Graduate Student Orientation
	20	Mon	Classes begin, 7:30 a.m.
	28	Tue	Final date for dropping courses without receiving a grade of "W," 4:30 p.m. deadline
	29	Wed	Final date for adding courses for credit and making section changes, 4:30 p.m. deadline
	29	Wed	Final date to petition deans' offices to invoke the Grade Exclusion Policy, 4:30 p.m. deadline

SEPTEMBER	3	Mon	Labor Day holiday begins, 7:30 a.m.
	4	Tue	Classes resume, 7:30 a.m.

OCTOBER	4	Tue	Fall Holiday begins, 7:30 a.m.
	8	Mon	Classes resume, 7:30 a.m.
	16	Tue	Mid-semester grades due, 9:00 a.m. deadline
	21	Sun	Course scheduling for spring semester, Spring Intersession, and summer term begins, 5:00 p.m.

NOVEMBER	2	Fri	Final date for dropping courses, 4:30 p.m. deadline
	2	Fri	Final date for resigning from the University, 4:30 p.m. deadline
	2	Fri	Final date to request rescheduling a final examination when three examinations are scheduled in 24 hours
	21	Wed	Thanksgiving Holiday begins, 12:30 p.m.

26	Mon	Classes resume, 7:30 a.m.
28	Wed	Concentrated Study Period begins–no meetings, social activities, athletic events, or other extracurricular activities requiring student participation will be scheduled; no major examinations will be given in academic courses other than labs

DECEMBER	1	Sat	Classes end, 10:00 p.m.
	2	Sun	Concentrated Study Period ends
	3-8	Mon-Sat	Final examinations
	11	Tue	Final grades due (degree candidate), 9:00 a.m. deadline
	12	Wed	Final grades due (non-degree candidate), 9:00 a.m. deadline
	14	Fri	Commencement Day
		-	42 MWF Classes; 28 TTh Classes

## Wintersession 2018

DECEMBER	10	Mon	Classes begin, 7:30 a.m.
	10	Mon	Final date for dropping courses without receiving a grade of "W," 4:30 p.m. deadline
	11	Tue	Final date for adding courses for credit and making section changes, 4:30 p.m. deadline
	11	Tue	Final date to petition deans' offices to invoke the Grade Exclusion Policy, 4:30 p.m. deadline
	18	Tue	Final date for dropping courses, 4:30 p.m. deadline
	18	Tue	Final date for resigning from the university, 4:30 p.m. deadline
	21	Fri	Classes end, 10:00 p.m.
	22	Sat	Final examinations

JANUARY	3	Thu	Final grades due, 9:00 a.m. deadline

#### 11 Classes

# Spring Semester 2019

JANUARY	2	Wed	International Student Orientation
	3,4,7	Thu, Fri, Mon	Freshman and Transfer Orientation
	9	Wed	Classes begin, 7:30 a.m.
	17	Thu	Final date for dropping courses without receiving a grade of "W", 4:30 p.m. deadline
	18	Fri	Final date for adding courses for credit and making section changes, 4:30 p.m. deadline
	18	Fri	Final date to petition deans' offices to invoke the Grade Exclusion Policy, 4:30 p.m. deadline
	21	Mon	Martin Luther King Day holiday begins, 7:30 a.m.
	22	Tue	Classes resume, 7:30 a.m.

MARCH	4	Mon	Mardi Gras holiday begins, 7:30 a.m.
	6	Wed	Classes resume, 12:30 p.m.
	12	Tue	Mid-semester grades due, 9:00 a.m.
	22	Fri	Final date for dropping courses, 4:30 p.m. deadline
	22	Fri	Final date to request rescheduling a final examination when three examinations are scheduled in 24 hours
	24	Sun	Course scheduling for fall semester, Summer Intersession, and Wintersession begins, 5:00 p.m.

APRIL	15	Mon	Spring Break begins, 7:30 a.m.
	22	Mon	Classes resume, 7:30 a.m.

	24	Wed	Concentrated Study Period begins–no meetings, social activities, athletic events, or other extracurricular activities requiring student participation will be scheduled; no major examinations will be given in academic courses other than labs
	27	Sat	Classes end, 10:00 p.m.
	28	Sun	Concentrated Study Period ends
	29	Mon	Final examinations

MAY	4	Sat	Final examinations end
	7	Tue	Final grades due (degree candidate), 9:00 a.m. deadline
	8	Wed	Final grades due (non-degree candidate), 9:00 a.m. deadline
	10-11	Fri, Sat	Commencement Activities
		1	42 MWF Classes; 28 TTh Classes

# Spring Intersession 2019

MAY	13	Mon	Classes begin, 7:30 a.m.		
	13	Mon	Final date for dropping courses without receiving a grade of "W," 4:30 p.m. deadline		
	14	Tue	Final date for adding courses for credit and making section changes, 4:30 p.m. deadline		
	14	Tue	Final date to petition deans' offices to invoke the Grade Exclusion Policy, 4:30 p.m. deadline		
	21	Tue	Final date for resigning from the university, 4:30 p.m. deadline		
	21	Tue	Final date for dropping courses, 4:30 p.m. deadline		
	24	Fri	Classes end, 10:00 p.m.		
	27	Mon	Final Examinations		
	29	Wed	Final grades due, 9:00 a.m. deadline		
	11 Classes				

## Summer Term 2019

### Session A

MAY	24	Fri	International Student Orientation	
	28-30	Tue-Thu	Freshman and Transfer Orientation	

JUNE	3	Mon	Classes begin, 7:30 a.m.
	5	Wed	Final date for dropping courses without receiving a grade of "W," 4:30 p.m. deadline
	6	Thu	Final date for adding courses for credit and making section changes, 4:30 p.m. deadline
	6	Thu	Final date to petition deans' offices to invoke the Grade Exclusion Policy, 4:30 p.m. deadline

JULY	1	Mon	Mid-term grades due, 9:00 a.m.
	4	Thur	Independence Day holiday begins, 7:30 a.m.
	5	Fri	Classes resume, 7:30 a.m.
	9	Tue	Final date for resigning from the university, 4:30 p.m. deadline
	9	Tue	Final date for dropping courses, 4:30 p.m. deadline
	22	Mon	Classes end, 10:00 p.m.
	23	Tue	Concentrated Study Day
	24	Wed	Final examinations begin
	25	Thu	Final examinations end
	30	Tue	Final grades due (degree candidate), 9:00 a.m. deadline
	31	Wed	Final grades due (non-degree candidate), 9:00 a.m. deadline

AUGUST	2	Fri	Commencement, 9:00 a.m.

	35 Classes	

### Session B

MAY	24	Fri	International Student Orientation
	28-30	Tue-Thu	Freshman and Transfer Orientation

JUNE	3	Mon	Classes begin, 7:30 a.m.
	5	Wed	Final date for dropping courses without receiving a grade of "W," 4:30 p.m. deadline
	6	Thu	Final date for adding courses for credit and making section changes, 4:30 p.m. deadline
	6	Thu	Final date to petition deans' offices to invoke the Grade Exclusion Policy, 4:30 p.m. deadline
	25	Tue	Final date for resigning from the university, 4:30 p.m. deadline
	25	Tue	Final date for dropping courses, 4:30 p.m. deadline

JULY	4	Thu	Independence Day holiday
1	5	Fri	Classes resume, 7:30 a.m.
	5	Fri	Classes end, 10:00 p.m.
	6	Sat	Final examinations
	10	Wed	Final grades due, 9:00 a.m. deadline

AUGUST	2	Fri	Commencement, 9:00 a.m.			
	24 Classes					
S						

### Summer Intersession 2019

AUGUST	5	Mon	Classes begin, 7:30 a.m.

5	Mon	Final date for dropping courses without receiving a grade of "W," 4:30 p.m. deadline
6	Tue	Final date for adding courses for credit and making section changes, 4:30 p.m. deadline
6	Tue	Final date to petition deans' offices to invoke the Grade Exclusion Policy, 4:30 p.m. deadline
13	Tue	Final date for resigning from the university, 4:30 p.m. deadline
13	Tue	Final date for dropping courses, 4:30 p.m. deadline
16	Fri	Classes end, 10:00 p.m.
17	Sat	Final examinations
21	Wed	Final grades due, 9:00 a.m. deadline
 1	1	11 Classes

### **The University** Historical Perspective

*Louisiana State University and Agricultural & Mechanical College* originated in grants of land made by the U.S. government beginning in 1806. In 1853, the Louisiana General Assembly established the *Louisiana State Seminary of Learning and Military Academy* near Pineville, Louisiana. The institution opened January 2, 1860, with General William Tecumseh Sherman as superintendent. Because of the Civil War, the school closed June 30, 1861, and reopened on April 1, 1862, with Col. William Linfield as acting superintendent. He was succeeded in 1863 by Professor William A. Seay. Because of the invasion of the Red River Valley by the Federal Army, the institution was closed again on April 23, 1863.

The Seminary reopened October 2, 1865, with Col. David F. Boyd as superintendent. It was destroyed by fire on October 15, 1869, and reopened on November 1, 1869, in Baton Rouge, where it has remained. In 1870, the name of the institution was changed to *Louisiana State University*.

*The Louisiana State Agricultural & Mechanical College*, established by an Act of the Legislature in 1874, opened in New Orleans on June 1, 1874, where it remained until merging with Louisiana State University on January 2, 1877. That same year, the university was designated as a land-grant college. The two state institutions began their first joint session on October 5, 1877, under the name *Louisiana State University and Agricultural & Mechanical College*.

The first Baton Rouge home of the newly named institution took up residence at what was the Institute for the Deaf, Dumb, and Blind. In 1886, the institution moved to the federal garrison grounds (now the site of the State Capitol). Construction of the present campus started in 1922, and the move, which began in 1925, was not completed until 1932. Formal dedication of the present campus took place on April 30, 1926.

LSU's chief academic divisions have grown in size and changed names and focus over its more than 150 years of operation to accommodate increasing demand from students and the progression of academia and research.

School	Formed
Hebert Law School (made into an autonomous unit 1977, realigned with LSU A&M, 2015)	1906
College of Agriculture	1908
College of Engineering	1908
Graduate School	1909
Arts & Sciences (renamed College of Humanities & Social Sciences 2010)	1909
Education (renamed <b>College of Human Sciences &amp;</b> Education 2012)	1909
Manship School of Mass Communication	1913
Continuing Education	1924
College of Business Administration (renamed the E.J. Ourso College of Business Administration 1996) (renamed the <b>E.J. Ourso College of Business 2005</b> )	1928

School	Formed
College of Chemistry & Physics (renamed the College of Basic Sciences 1982) (renamed the <b>College of Science 2010</b> )	1931
School of Music (renamed the <b>College of Music &amp;</b> Dramatic Arts 1998)	1931
Junior Division (incorporated into <b>University College</b> <b>1999</b> ) University College was incorporated into General College in 1974 and was then reinstated in 1999.	1951
School of Environmental Design (renamed the College of Design 1979) (renamed the <b>College of Art</b> & Design 2001)	1965
School of Veterinary Medicine	1968
Center for Wetland Resources (renamed the Center for Coastal Energy and Environmental Resources 1991) (renamed the School of the Coast and Environment 2001) (renamed the <b>College of the</b> <b>Coast and Environment 2016</b> )	1970
Honors College (renamed the <b>Roger Hadfield Ogden</b> <b>Honors College 2015</b> )	1992

In 1978, LSU was named a sea-grant college—the 13th university in the nation to be so designated, and the highest classification in the program. In 2005, LSU was designated as a space-grant college.

### LSU Today

Today, LSU holds a prominent position in American higher education and is committed to meeting the challenge of pursuing intellectual development for its students, expanding the bounds of knowledge through research, and creating economic opportunities for Louisiana. LSU is in a state of dynamic transformation– changing and evolving to meet the needs of its students, faculty, and the people of Louisiana. Enriched by Louisiana's natural and cultural distinctiveness, the community of learning at Louisiana's national flagship university prepares students to meet the environmental, social, economic, scientific, creative, and educational challenges that confront us locally and globally in the 21<sup>st</sup> century. LSU Flagship 2025: *Leading Louisiana, Impacting the World* underscores the university's commitment to excellence at every level and focuses on the goals of learning, discovery, diversity, and engagement.

LSU is designated as a land-, sea-, and space-grant institution. In addition, the Carnegie Foundation has designation LSU as a Doctoral University of Highest Research Activity, reflective of the university's dedication to research.

LSU's instructional programs include 220 undergraduate degrees, graduate/professional degrees, and graduate certificates.

The university attracts about 15 percent of the state's total enrollment in higher education, and LSU students come from many ethnic and religious backgrounds. The student body consists of more than 32,000 students from 49 states and almost 100 foreign countries. Although the average age of undergraduates is 21, many older students also pursue degrees at LSU. The student body is 53 percent women and 47 percent men.

Since its first commencement in 1869, LSU has awarded more than 271,000 degrees. The university produces about 26 percent of Louisiana's baccalaureate graduates, approximately 21 percent of the master's graduates, about 60 percent of the doctoral graduates, and around 25 percent of the professional graduates. In 2016-17, LSU awarded 6,749 degrees.

The university is a member of the American Council on Education, an organization of accredited post-secondary educational institutions founded in 1918; the Association of Public and Land-Grant Colleges, founded in 1962 to represent the major public universities and land-grant institutions; and the American Association of State Colleges and Universities, a select group of leading public institutions of higher education.

The university is composed of eight institutions on seven campuses in five cities. It was established by an act of the Louisiana Legislature on February 6, 1965 and includes LSU A&M; LSU Agricultural Center; LSU Health Sciences Center New Orleans; LSU Health Sciences Center Shreveport; LSU Alexandria; LSU Eunice; LSU Shreveport; and Pennington Biomedical Research Center. Included in the collective system of campuses and facilities is also the Health Care Services Division.

The governing body of the university is the Board of Supervisors, composed of 15 members appointed by the governor to staggered, six-year terms and one student member elected to a one-year term by fellow university student government leaders. Chief administrative officers of the University are the *President, Executive Vice President and Provost, Executive Vice President for Finance & Administration/CFO, Vice President for Research & Economic Development, Vice President for Strategic Initiatives, Vice President for Student Affairs, Vice President for Agriculture, the Interim Vice President for Strategic Communications, and the Director of Athletics.* 

The LSU Agricultural Center, including the Louisiana Agricultural Experiment Station and the Louisiana Cooperative Extension Service and International Programs, has more than 200 faculty members who hold joint appointments with LSU. The Experiment Station has research programs in Baton Rouge and at branch stations throughout Louisiana. The Extension Service disseminates results of research throughout the state through specialists, county agents, and home economists in every parish.

The Paul M. Hebert Law Center, originally established in 1906, became an autonomous unit of the university in 1977. In 1979, it was renamed in honor of Paul M. Hebert, who served as dean from 1937 to 1977. In 2015, the Law Center realigned with LSU A&M

All references in this catalog to "Louisiana State University or " LSU" are to be understood as meaning the institution in Baton Rouge (whose full name is Louisiana State University and Agricultural & Mechanical College). Any reference to any other institution(s) within the university will be clearly indicated.

#### Mission

As the flagship institution of the state, the vision of Louisiana State University is to be a leading research-extensive university, challenging undergraduate and graduate students to achieve the highest levels of intellectual and personal development. Designated as a land-, sea-, and space-grant institution, the mission of Louisiana State University is the generation, preservation, dissemination, and application of knowledge and cultivation of the arts.

In implementing its mission, LSU is committed to:

- offer a broad array of undergraduate degree programs and extensive graduate research opportunities designed to attract and educate highly qualified undergraduate and graduate students;
- employ faculty who are excellent teacher-scholars, nationally competitive in research and creative activities, and who contribute to a world-class knowledge base that is transferable to educational, professional, cultural, and economic enterprises; and
- use its extensive resources to solve economic, environmental, and social challenges.

(Mission Statement approved December 2006; reaffirmed October 2012)

#### Teaching

The university has over 1,470 full-time and part-time faculty members. *The Boyd Professorship*—named in honor of two early university presidents, David and Thomas Boyd—is the highest professorial rank awarded. The *William A*. *Read Professorship of English Literature* and the *Nicholson Professorship of Mathematics* are comparable to the Boyd Professorship.

Other awards for outstanding achievement are *Endowed Chairs, Endowed Professorships, LSU Foundation Professorships, Alumni Professorships,* and the annual *Distinguished Research Master Award*. Recognized authorities in various fields are appointed as consulting professors or visiting lecturers.

The university is committed to the principle that excellence in teaching depends upon qualified and conscientious instructors. LSU boasts a nationally and internationally recruited faculty—approximately 86 percent of whom have terminal degrees. Many faculty members are international authorities in their fields and bring esteem and recognition to the university. The recipients of such coveted awards as the Guggenheim and Fulbright fellowships, LSU professors represent an enviable array of knowledge.

#### Research

LSU is one of a small number of universities nationwide designated as a land-, sea-, and space-grant institution. The university's success in the leveraging of state funds to obtain federal dollars places it among the best in the nation and represents a good investment of taxpayer's money.

The *University Libraries* comprise the largest library in the state. The university has been issued more than 327 cumulative patents.

In addition to more than 40 institutes, centers for advanced study, and other specialized units headquartered at LSU, various state and federal governmental units maintain offices and laboratories on campus. At any given time, more than 1,200 sponsored research projects are in progress. Additionally, faculty and staff members and graduate students pursue numerous research projects that are not sponsored by outside agencies. Research expenditures at LSU in 2013-14 were \$144 million. LSU's awarded grants and contracts from federal, state, and private sources provide a significant boost to the Louisiana economy. Other research projects and instructional programs are undertaken through the LSU Agricultural Center, the Louisiana Agricultural Experiment Station, and Pennington Biomedical Research Center.

#### **Public Service**

Government, education, business, and industry in Louisiana benefit daily from the outreach services provided by LSU. New technology is transferred from university laboratories to the community, providing a vital boost to the economy and helping to find answers to some of Louisiana's most pressing environmental issues.

Several LSU divisions provide public services to the community and state.

- *LSU Active Schools Initiative*, coordinated by the Physical and Emotional Literacy Lab in the College of Human Sciences & Education, is a professional development program to create school champions of physical activity. This initiative and accompanying research is currently funded by the Robert Wood Johnson Foundation Active Learning Research (ALR) program and the National Association of Sport and Physical Education (NASPE). The professional development program provides champions with the knowledge, skills, and confidence to implement comprehensive school physical activity programs.
- The *Baton Rouge Area Violence Elimination (BRAVE) Project* is a multi-disciplinary initiative led by the College of Human Sciences & Education's Office of Social Service Research and Development (OSSRD). BRAVE is a partnership in conjunction with the East Baton Rouge Mayor's Office, District Attorney's Office, law enforcement agencies, and other community partners in an effort to reduce crime in Baton Rouge's 70805 and 70803 zip code areas. OSSRD leads the BRAVE research team by conducting trainings, interviews, and related research. In addition, LSU faculty from sociology, geography and anthropology, leadership and

human resource development, and mass communication analyze crime data and assist in community awareness initiatives.

- The *LSU Cartographic Information Center* (CIC), ranked among the largest academic map libraries in the U.S., holds a vast collection of maps, aerial photographs, globes, journals, monographs, slides, and atlases. The center serves patrons from the LSU community, businesses, state and federal agencies, and the general public.
- The *J. Bennett Johnston Sr. Center for Advanced Microstructures & Devices (CAMD)* is a high-tech research center that serves the public by providing an infrastructure for economic diversity within the state in the area of microfabrication; testing services for local area gas, oil, and chemical industries; a focus for material science research and development at LSU and within the state; and scientific outreach to students in elementary school through graduate school.
- The *Center for Engaged Humanities* supports ethical, equitable, research and practice-based initiatives among campus and community entities.
- The *LSU Center for Internal Auditing (LSUCIA)* is an internationally recognized program that provides students with nationwide internships and career opportunities. The LSUCIA also provides executive training for professionals.
- The *LSU Coastal Roots Program* is a coastal habitat restoration project in south Louisiana led by the College of Human Sciences & Education in partnership with the College of Agriculture and the Louisiana Sea Grant College Program. This program engages second through twelfth graders in the growing of native plant seedlings and grass plugs that they then plant in coastal habitat restoration sites across South Louisiana.
- The *LSU Coastal Sustainability Studio (CSS)* provides a laboratory to develop new designs that reduce risks to social, economic, and natural resources, with a focus on adaptation through more sustainable regional and land-use planning. The CSS is a collaborative effort between the College of Art & Design, the College of Engineering, and the College of the Coast & Environment.
- *The LSU College Readiness Program* is a dual enrollment opportunity: high school students can earn credit for both an LSU course and a high school course at the same time while remaining on the high school campus. Teacher professional development workshops are also offered.
- *Continuing Education* (CE) provides valuable learning opportunities by extending LSU's resources beyond the campus through credit and non-credit courses, certificate programs, and conferences. CE programs serve professionals, business owners, distance learners, and students from pre-kindergarten through retirement age.
- The *Curriculum Theory Project* is housed in the School of Education. The project supports trans-disciplinary research at the local, state, regional, national, and international levels concerning curricular issues within a broad social and cultural framework.
- The *Disaster Science and Management (DSM) Program* in the College of Humanities & Social Sciences partners with both governmental and nonprofit organizations in Louisiana to provide disaster planning services free-of-charge and internships to students and citizens interested in getting hands-on experience with disaster science and management.
- The *Division of Economic Development (DED)* is affiliated with the Department of Economics in the LSU E. J. Ourso College of Business and annually produces the *Louisiana Economic Outlook*, or *LEO*, which analyzes the state's economy and that of major metropolitan areas to forecast the state's employment for the next two years.
- The Division of Student Life & Enrollment provides developmental opportunities in citizenship and social responsibility through service, volunteerism, and educational programs. The Office of the Dean of Students coordinates volunteer and service programs for local communities, such as Community Bound, Geaux BIG Baton Rouge, Greek Week Habitat for Humanity Build, Homecoming CANapalooza, Kitchens on the Geaux, and the LSU Food Pantry.
- The *Earth Scan Laboratory* is a satellite receiving station and image processing facility for environmental data from six unique earth observing sensor systems. The laboratory specializes in real-time access to satellite imagery and measurements of the atmosphere, oceans, and coastal areas within the Gulf of Mexico, Caribbean Sea, W. Atlantic, and E. Tropical Pacific Ocean. Satellite measurements are obtained directly from satellite transmissions many times each day. The mission of the laboratory supplies hurricane images every few

minutes to the Governor's Office of Homeland Security and Emergency Response. ESL's comprehensive web page, www.esl.lsu.edu, provides daily imagery and animations of oceanic and atmospheric circulations both in real-time and as historic archives.

- LSU EnvironMentors is a national college access initiative supported by the National Council for Science and the Environment. The LSU Chapter has partnered with the College of Human Sciences & Education's LSYOU program and Louisiana Sea Grant. The Chapter's mission is to prepare high school students from underrepresented backgrounds for college degree programs in environmental and related science fields by matching them with mentors from the College of the Coast & Environment to participate in hands-on science education.
- *Executive Education*, part of the LSU Stephenson Entrepreneurship Institute, has prepared individuals and organizations to meet the challenges of a rapidly changing workplace for more than 50 years. Highly relevant courses are designed to provide an immediate impact and help business owners make best course of action decisions.
- The LSU FACES Laboratory is a public service, research, and educational facility designated to assist law enforcement agencies in the positive identification of human remains, profile analysis, and trauma analysis. Since 1981, this laboratory unit of the Department of Geography & Anthropology, the only one of its kind in the state and region, has offered complete methods of identification through forensic anthropological autopsy and computer-generated techniques. As of 2006, the facility has also housed the Louisiana Repository for Unidentified and Missing Persons Information Program, which is creating a database for all unidentified and missing people in Louisiana.
- The *LSU Program in Screen Arts LPB* and *Manship Internships* provide students with direct industry experience and field work that directly support the public-service, non-profit missions of both organizations.
- The *Fitness Testing of Louisiana School Children Program* in the College of Human Sciences & Education's School of Kinesiology is part of a five-university partnership facilitating fitness testing in Louisiana schools. This program provides professional development to teachers through support and guidance on best-practice interventions to increase physical activity and improve fitness and health of students across Louisiana.
- The *Highway Safety Research Group (HSRG)*, a branch of the Department of Information Systems & Decision Sciences in the LSU E. J. Ourso College of Business, collects, maintains, analyzes, and distributes crash data to support public policy decisions in Louisiana. Programmers from HSRG developed LACRASH, a software program that has revolutionized the way traffic accidents are reported.
- The College of Human Sciences & Education's *Office of Social Service Research and Development (OSSRD)* received a three-year \$1.5 million grant from the U.S. Department of Health and Human Services: Office of Minority Health for the Youth Empowerment Program II (YEP) proposal, which aims to promote family engagement and prevent violence in at-risk minority youth. The program, designated as *YEP Village*, strengthens work currently underway by OSSRD in the Baton Rouge community by providing services at the Family and Youth Service Center for elementary school African American boys from inner city schools in areas that have been served by the Baton Rouge Area Violence Elimination (BRAVE) project.
- The College of Humanities & Social Sciences Secondary Education concentrations (the *Geaux Teach–Humanities Program*) in history, English, Spanish, and French have been designed to provide students with the skills and experiences necessary to become successful educators in grades 6-12. This program, a collaborative with the College of Human Sciences & Education, pairs education and content courses with carefully selected field experiences in diverse settings under the professional mentorship of secondary teachers.
- The *HopKins Black Box Theatre* in the Department of Communication Studies functions as the department's performance studies area classroom and research laboratory, in addition to offering a full season of public performances each year.
- The *Human Resource-Industrial/Organizational (HRIO) Consultancy* is an applied research office housed in the College of Human Sciences & Education's School of Leadership & Human Resource Development. The HRIO Consultancy works with public and private sector organizations in Louisiana and the Southern Region to improve organizational performance and employee well-being.
- The *Leadership Development Institute (LDI)* is an umbrella organization to promote interdisciplinary research and collaboration on leadership development. The LDI serves as a research, education, and outreach

initiative within the College of Human Sciences & Education's School of Leadership & Human Resource Development, benefitting the students at LSU and the broader community of constituents which LSU serves.

- The *Life Course and Aging Center (LCAC)* is an interdisciplinary and inter-institutional research unit headquartered at LSU. Comprised of faculty and students representing the Colleges of Human Sciences & Education and Humanities & Social Sciences along with seven other higher education institutions throughout Louisiana, LCAC is engaged in multidisciplinary partnerships promoting healthy development and aging across the lifespan.
- The LSU Hurricane Center is a multidisciplinary center addressing hurricanes and other hazards and their impacts on the natural, built, and human environments. Center faculty work closely with resource managers and emergency preparedness decision-makers, transferring the latest information and technology in areas such as storm prediction, preparedness, response, recovery, and mitigation.
- The *Interdepartmental Program in Natural Science* provides postbaccalaureate students with advanced content knowledge and the skills and experiences necessary to become successful educators in a variety of science and mathematics fields. This program pairs education and content courses with carefully selected field experiences.
- Providing assistance to inventors, the *LSU Libraries' Patent and Trademark Resource Center* maintains the entire back file of U.S. utility and design patents on DVD, paper, and microfilm. Librarians provide assistance in searching USPTO patent and trademark databases to the general public, as well as the LSU community.
- The *LSU Libraries Special Collections* microfilms for posterity the newspapers of record in Louisiana's 64 parishes that are not commercially filmed, preserving an important historical record of happenings in those parishes. For example, microfilm produced by the Libraries was digitized and used following Hurricane Katrina by St. Bernard Parish government to restore its records, which were destroyed in the storm.
- The *LSU Stephenson Entrepreneurship Institute* utilizes various programs, seminars, and other means to address the challenges of entrepreneurship and to positively impact students, the regional economy, Louisiana, and the nation.
- Les Voyageurs are the official student ambassadors selected to represent the College of Agriculture and Louisiana State University. The team focuses on the recruitment of prospective students and advocacy of agriculture. Students participate in both on and off campus recruitment events and conventions, promote all fields of study, and play an active role in serving the college in various alumni and networking events.
- The *Louisiana Business & Technology Center* (LBTC) operates an award-winning business incubator at LSU's Innovation Park that is home to more than 20 start-up businesses and the Student Incubator. The LBTC operates the Louisiana Technology Transfer Office for the state of Louisiana that, through its offices at LSU and NASA/SSC, provides technical assistance to Louisiana companies through NASA and other federal laboratories. Graduate and undergraduate students work on projects through the LBTC.
- The *Office of Community Design & Development* in the College of Art & Design, provides architectural, landscape, and interior design services, as well as community planning, technical assistance, and educational outreach to local communities, housing authorities, and community development corporations.
- The *Louisiana Cooperative Extension Service*, a division of the LSU Agricultural Center, is a statewide program that maintains agricultural agents and specialists in each of Louisiana's 64 parishes.
- The Louisiana Council of the AdvanceED/Southern Association of Colleges and Schools (SACS) for P-12 schools partners closely with the College of Human Sciences & Education, where it is housed. AdvanceED/SACS is committed to assisting Louisiana public and nonpublic elementary, middle, and secondary schools and school systems in efforts to achieve accreditation and ensure quality instruction for students.
- The *Louisiana Geological Survey* performs geological investigations that benefit the state of Louisiana by encouraging the economic development of the natural (energy, mineral, water, and environmental) resources of the state, protecting the state and its citizens from natural, geological, and environmental hazards, and ensuring the transfer of geological information.
- The *Louisiana Small Business Development Center at LSU (LSDBC at LSU)* is housed in the LSU Stephenson Entrepreneurship Institute, part of the E. J. Ourso College of Business, and facilitates the

formation and growth of small businesses through individual consulting services, entrepreneurial training programs, and business information resources to develop and diversify the Louisiana economy.

- The *Louisiana State Personnel Development Grant* is a long-standing College of Human Sciences & Education program for K-12 education designed to improve outcomes for students with disabilities through awarding statewide personnel development grants to school districts.
- The LSU Writing Project, was established in 1985 and is located in the College of Human Sciences & Education's School of Education. It is an intensive professional development program designed to improve the teaching of writing and increase the use of writing for teachers at all grade levels and in all subject areas with an ultimate goal of helping students become accomplished writers and learners. Through a dynamic and generative approach of "teachers teaching teachers," the LSU Writing Project provides outreach to a ten parish network in the southern part of Louisiana. This is one of nearly 200 sites in the United States that comprise the National Writing Project so participants are able to join a large network of educators who actively promote writing in schools and districts.
- Louisiana State Youth Opportunities Unlimited (LSYOU) is a College of Human Sciences & Education program that assists Louisiana adolescents at high risk of dropping out of school. The program provides a long-term, case-managed relationship and data driven intervention into the lives of high-need students to enable them to successfully overcome obstacles, graduate from high school, and enter postsecondary education.
- The *Louisiana Veterinary Medical Diagnostic Laboratory* provides a comprehensive animal disease diagnostic service to the agricultural and general communities.
- *Parkinson's Research Program* acknowledges the major benefits of physical activity for individuals with Parkinson's disease and emphasizes the necessity of staying active for individuals from this population. The School of Kinesiology faculty in the College of Human Sciences & Education offer safe exercise protocols that can be performed by individuals with Parkinson's at various stages of the disease and study ways to achieve more effective training techniques, which can help this population maintain or increase their level of function.
- *Playground KIDZ* is a partnership between the LSU College of Human Sciences & Education's School of Kinesiology and Baton Rouge Recreation and Park Commission. LSU students plan and implement free after-school programs in three BREC parks located in low income neighborhoods. Children participate in homework help and structured physical activity.
- *Psychological Services Center* offers assessment and treatment to adults and children for a variety of psychological and behavioral difficulties.
- *The Public Administration Institute (PAI)* is housed in the LSU E.J. Ourso College of Business and provides outstanding educational opportunities for those already in the public, private, or non-profit sectors who wish to advance their careers.
- The *Public Policy Research Laboratory* combines the talents and disciplinary perspectives of mass communication scholars and political scientists. The lab offers an innovative approach to original public opinion research on behalf of policy makers, state and local government agencies, nonprofit organizations, media outlets, and academicians. It is a partnership of the Manship School of Mass Communication's Reilly Center for Media & Public Affairs and the College of Humanities & Social Sciences.
- The *Real Estate Research Institute* within the Department of Finance in the LSU E. J. Ourso College of Business was established to encourage, support, and conduct research in real estate. Established in 1985, it is partially funded by the Louisiana Real Estate Commission.
- The *Reilly Center for Media & Public Affairs* provides symposia, forums and research on the relationships between the media and social, economic and political issues.
- The *Relation Station Matchbox Interaction Lab* in the Department of Communication Studies is used to videotape individuals and small groups of up to five performing experiential activities such as mock job interviews.
- The Safe Routes to School program is funded by the Louisiana Department of Transportation and Development. The School of Kinesiology faculty in the College of Human Sciences & Education encourages cycling and walking safety along with facilitating improvements to bicycle paths in the Old South Baton

Rouge community for students attending Polk Elementary and Buchanan Elementary public schools. In addition, the University Lab School is an active participant in this program.

- The *LSU School of Social Work* provides approximately 96,000 hours of service to the State of Louisiana annually through student placements in over 300 agencies and organizations. In addition, the school is involved in ongoing projects that target areas such as addiction treatment, gerontology, poverty, school social work, and other social justice issues.
- The primary goal of the research project titled *LSU School of Social Work Behavioral Health Workforce Education and Training Program* is to increase the skilled, professional social work labor force in Louisiana to meet the surging, behavioral health care needs among at-risk youth. To meet this goal, the primary objective is to enhance and expand behavioral health workforce education and training opportunities for LSU MSW Program students committed to working with vulnerable and underserved populations, specifically youth at-risk for behavioral health disorders.
- The *School of Veterinary Medicine, Veterinary Teaching Hospital* offers tertiary, secondary, and primary care services for animals of the pet-owning public and animal industries of Louisiana and surrounding states. Specialty services in large and small animal internal medicine and surgery, cardiology, dermatology, avian and exotic animal medicine, radiation and medical oncology, ophthalmology, radiology, pathology, and theriogenology are available.
- The *Office of Sea Grant Development* communicates the results of marine and coastal research through practical assistance, educational programs, and various media products. Public service efforts are conducted through the Sea Grant Legal Program, Marine Extension Services, Advisory Services in Marine Recreation and Tourism, and the Communications Office.
- The College of Science *Secondary Education concentrations (Geaux Teach Program)* in biological sciences, chemistry, mathematics, and physics have been designed to provide students with the skills and experiences necessary to become successful educators. This program, a collaborative with the College of Human Sciences & Education, pairs education and content courses with carefully selected field experiences in diverse settings under the professional mentorship of secondary teachers.
- The *Office of Social Service Research & Development (OSSRD)* is located within the College of Human Sciences & Education. OSSRD fosters healthy social systems by facilitating the development, implementation and evaluation of social programs, conducting intervention research, and providing consultation and expertise to the university, community, policy makers, and partners.
- *The Speech-Language Hearing Clinic* offers diagnostic evaluation and management services for those with communication disabilities.
- The *LSU Stephenson Disaster Management Institute* was established to help save the lives of people and animals by continuously improving disaster response management through research and education.
- The College of Human Sciences & Education's *School of Library & Information Sciences* holds an annual Storytelling Festival in July. Graduate students present traditional folktales from many different cultures and ethnic groups in the U.S. and from around the world. This event is free and open to the public.
- The *Tai Chi Exercise Program* in the College of Human Sciences & Education's School of Kinesiology is designed to assist a portion of older adults with and without known neurological deficits that have difficulty performing activities of daily living. These adults cannot always participate in regular exercise training regimes or feel uncomfortable in those offered in fitness centers. This program offers a safe way for these individuals to exercise, which also may help limit the functional degeneration that occurs with normal aging and/or neurological disorders as with Parkinson's disease and Peripheral Neuropathy.
- The *Program in Louisiana and Caribbean Studies* is a multi-disciplinary initiative that sponsors lectures, conferences, and instruction. The program disseminates knowledge and fosters communication about topics that connect Louisiana and the Caribbean geographically, historically, and culturally. Affiliated faculty and students conduct research onsite in Louisiana, Latin America, and the Caribbean.
- *The Leadership Development Institute* within the College of Human Sciences & Education's School of Leadership & Human Resource Development serves as an umbrella organization that promotes interdisciplinary research and collaboration on leadership development issues. Through innovative discovery, curricula, programs, and strategic partnerships with industry, it provides a science-based focus on developing sustainable and effective leaders for Louisiana and the nation.
- *Wellness Ambassador Program (WAP)* through BCJI a grant through the Office of the Mayor, the School of Leadership & Human Resource Development works with 20 at-risk youth during the summer through the WAP project. The students will go through wellness, physical activity, career development, and nutrition

curriculum during the summer program that will teach them life skills on cooking, resume building, stress relief, etc

- *Title 4E Program* The LSU School of Social Work, the Department of Children and Family Services, and the consortium of university SSW partners have prioritized the need for a skilled workforce in the area of child welfare. The scope of work may be described as implementation of the stipend program and training and technical assistance to child welfare workers, as well as providing support to the Department of Children and Family Services to develop and/or implement child welfare training initiatives.
- *LA SBIRT* in the School of Social Work is *a* grant funded by the US Department of Health and Human Services, Substance Abuse and Mental Health Services Administration to develop and implement a training program that teaches MSW students the necessary skills to provide screening, brief intervention, and referral to substance abuse treatment. Dr. Catherine Lemieux directs the state wide project which recruits and trains social work students, medical residents, and their supervisors.
- To address subsidence problems, the *Center for GeoInformatics* (C4G) at Louisiana State University, in cooperation with the National Geodetic Survey (NGS), founded the Louisiana Spatial Reference Center (LSRC) in 2002. LSRC installed a network of high precision Global Positioning System (GPS) receivers used as reference stations throughout Louisiana. C4G uses this system to focus research on pinpointing the location of subsidence and measuring exactly how fast the coast is sinking. LSRC also assists NGS in conducting aerial photography surveys and elevation surveys of Hurricane Evacuation routes. In 2007 C4G launched a Real-Time Network utilizing LSRC's state-wide GPS CORS infrastructure and termed the RTN GULFNet. LSRC's state-wide infrastructure currently provides the backbone for all surveying in Louisiana as well as provides the foundation for transportation and communication; GIS development; detailed topographic mapping and charting; precision farming; navigation and a multitude of scientific and engineering applications in Louisiana.
- The Louisiana Transportation Research Center (LTRC) conducts short-term and long-term research and provides technology assistance, engineering training and continuing education, technology transfer, and problem-solving services to DOTD and others in the transportation community. LTRC's goal is to merge the resources of state government and universities to identify, develop, and implement new technology to improve the state's transportation system. The focus of LTRC on safety-related research, training, and outreach has increased over the past five years as DOTD has affirmed its commitment to reducing the number of highway crashes which result in fatalities and serious injuries in the state. To that end, the Louisiana Center for Transportation Safety, also known as LCTS or the Safety Center, was established in January 2015. LTRC also delivers training and professional development through the Transportation Training and Education Center and the Local Technical Assistance Program.
- The National Center for Advanced Manufacturing (NCAM), located at the NASA Michoud Assembly Facility in New Orleans, is home to the partnership between NASA, the State of Louisiana, Louisiana State University, the University of New Orleans (UNO) and the UNO Research and Technology Foundation. NCAM, originally formed in 1999, is a state of the art research and production center focused on applying advanced manufacturing technologies to lightweight composite and metallic materials in support of the NASA space program and adjacent industries. NCAM also has a strong educational role, sponsoring a coalition of Louisiana research universities, workforce development programs and STEM outreach initiatives.

The university also offers numerous cultural and entertainment events, including lectures, musical performances, and plays, to the community each year. In the College of Music & Dramatic Arts, the *School of Theatre* and *Swine Palace* present 15-20 theatrical productions, each of which runs over extended periods of time. The *School of Music* presents more than 300 recitals and concerts each year. These include fully staged operas; choral, band, jazz, and orchestral concerts; and faculty and student recitals. The *LSU Performing Arts Academy*, run by the College of Music & Dramatic Arts, offers private and group lessons in the areas of music, theatre, and dance for all ages. In addition, LSU's museums—including the *Museum of Art*, the *Museum of Natural Science*, and the unique *Rural Life Museum and Windrush Gardens*—are open to all citizens.

## The Campus

The university is located on more than 2,000 acres in the southern part of the city, bordered on the west by the Mississippi River. The university's more than 250 principal buildings are grouped on a 650-acre plateau that constitutes the main part of the campus.

Original campus architecture was based on the Renaissance domestic style of northern Italy (tan stucco walls, red tile roofs), with buildings that house most of the classrooms and administrative offices grouped around two intersecting quadrangles and connected by colonnaded passageways. Architects of more recent campus structures have succeeded in blending contemporary design with the older style of architecture.

The city of Baton Rouge–capital of the state of Louisiana, an inland port, and a major petrochemical center–has a metropolitan area population of around 800,000. According to history, the city's name is derived from a tall cypress tree that once stood at the present site of Louisiana's Old State Capitol marking the boundary between the hunting grounds of the Houma and the Bayou Goula Indians. The early French explorers called the tree *le baton rouge* (the red stick).

Geographically, Baton Rouge is the center of South Louisiana's cultural and recreational attractions with New Orleans about 80 miles to the southeast. Less than an hour's drive north lie the gently rolling hills of Feliciana parishes' antebellum country. The fabled French-Louisiana country of bayous, marshes, and lakes—about an hour's drive from the campus—offers opportunities for fishing, hunting, and other recreation.

## **Organizational Structure**

The LSU President is the chief executive officer of the university. The leaders of the following administrative divisions of the university report to the president: Office of Academic Affairs, Office of Finance & Administration, Athletics Department, Office of Strategic Communications, Office of the General Counsel, and Office of Internal Audit.

#### **Office of the President**

OFFICE	3810 W. Lakeshore Drive
TELEPHONE	225-578-2111
FAX	225-578-5524
WEBSITE	www.lsu.edu/president

The *president* is the chief executive officer of the university and is empowered by the Board of Supervisors to promote and supervise the functions of the university. The president is delegated sufficient authority to execute the functions necessary to operate the university.

### **Office of Academic Affairs**

OFFICE	156 Thomas Boyd Hall
TELEPHONE	225-578-8863
FAX	225-578-5980

WEBSITE www.lsu.edu/academicaffairs

The *executive vice president and provost* serves as both the chief academic officer and as the chief operating officer of the university. The executive vice president and provost acts as chief administrative officer in the absence of the president and represents the president in both internal and external matters.

As chief academic officer, the executive vice president and provost is responsible for the academic programs of the university. The administrative center for exercise of this responsibility is the Office of Academic Affairs.

The Council of Academic Deans, which serves in an advisory capacity to the executive vice president and provost, meets monthly to review, deliberate, and make recommendations concerning academic matters. To provide support and faculty and staff input, several other councils and committees that engage in university-wide planning and budgetary matters report to the executive vice president and provost.

The executive vice president and provost works in tandem with the vice president for Finance and Administration/chief financial officer to prepare and monitor the operating budget for the university. The executive vice president and provost also leads, with and for the president, programmatic, budgetary, and facility planning for the university; exercises responsibility for space allocation; oversees faculty development programs and human resources issues; and superintends the university's efforts in assessment, with responsibility for developing policies and programs to ensure that the university is fully accountable in all aspects of its operations.

#### **Division of Strategic Communications**

OFFICE	3960 W. Lakeshore Drive
TELEPHONE	225-578-8654
FAX	225-578-3860
WEBSITE	www.lsu.edu/stratcomm

The Division of Strategic Communications is a full-service communications organization that proactively fashions, manages, and delivers consistent messages promoting LSU and its National Flagship Agenda to key internal and external audiences; protects and manages the internationally known LSU brand; promotes and supports fund-raising efforts for the university; and helps LSU achieve international prominence for its research, teaching, and service. The division provides a full array of resources to all units of the university and helps focus LSU entities on a consistent course of action that promotes university goals among students, faculty, staff, parents, lawmakers, donors, the media, and business leaders across Louisiana and the nation.

#### **Office of Policy & External Affairs**

OFFICE 3810 W. Lakeshore Drive

TELEPHONE 225-578-2111

FAX 225-578-5524

WEBSITE www.lsu.edu/externalaffairs

The Office of Policy & External Affairs oversees the unified voice of the university to all community and government leaders at the local, state, and national levels.

#### **Finance & Administration**

OFFICE	330 Thomas Boyd Hall
TELEPHONE	225-578-3386
FAX	225-578-5403
WEBSITE	www.lsu.edu/administration/ofa/

The vice president for Finance and Administration/chief financial officer is responsible for a variety of business functions and institutional support services, including accounting, purchasing, cash management and disbursement, capital financing, budgeting, facilities, information technology, risk management, human resources, police, safety, parking, traffic, transportation, auxiliary services, and trademark licensing.

#### **Office of Institutional Advancement**

OFFICE	3810 W. Lakeshore Drive
TELEPHONE	225-578-0302
FAX	225-578-0531
WEBSITE	www.lsu.edu/advancement

The Office of Institutional Advancement is responsible for building long-term relationships between LSU and its various constituencies in order to stimulate greater understanding and financial support.

The primary function of the office is to assist in the cultivation of major donors to the university as well as coordination of the fundraising efforts of the three foundations that serve LSU–the LSU Foundation, Tiger Athletic Foundation, and the LSU Alumni Association. The office also manages university policies in regard to fundraising and acts as the liaison to all fundraising entities for the president and provost.

#### **Office of Research & Economic Development**

OFFICE 134 David Boyd Hall

TELEPHONE 225-578-5833

FAX 225-578-5983

WEBSITE http://www.lsu.edu/research/index.php

The *vice president for research and economic development* is responsible for the overall research and economic development efforts of the university. The Office of Research & Economic Development (ORED) focuses on maximizing the university's impact on the intellectual, economic and social development of Louisiana, the nation, and the world.

ORED's mission includes creating a rich environment that promotes advanced research, scholarship, creativity, and economic development. The office coordinates the research efforts of more than 1,200 faculty and approximately 1,200 sponsored research projects each year. The faculty-driven Council on Research assists ORED with its mission.

The economic development focus of the office includes developing corporate partnerships, encouraging entrepreneurial activities, and driving Louisiana's economy through spearheading intellectual property development and commercialization efforts; development of corporate partnerships; and encouraging entrepreneurial activities.

ORED also coordinates the non-formula component of the budget and acts as liaison to the legislature in this area; in addition, it coordinates the LSU congressional/federal agenda, keeping our congressional delegation abreast of research issues at the university.

#### **Office of Strategic Initiatives**

OFFICE	213 Hatcher Hall
TELEPHONE	225-578-7230
FAX	225-578-7231
WEBSITE	sites01.lsu.edu/wp/osi

The Office of Strategic Initiatives assists in moving LSU up to a new level of excellence. OSI actively focuses on action steps that will support the educational research and scholarly productivity of faculty and the quality and competitiveness of LSU's graduate and undergraduate students. OSI's vision is to become a nationally recognized office of innovation for developing successful educational models that integrate mentoring, education, and research and that also support efforts to improve campus diversity, particularly in science, technology, engineering, and mathematics (STEM) disciplines.

OSI develops and implements programs that are designed to increase *diversity*, foster opportunities for *discovery*, collaborate on improving the campus *learning* community for all students, and promote community *engagement*.

Specifically, OSI

- 1. Assists the university in recruiting academically gifted high school and community college students into LSU undergraduate degree programs;
- 2. Assists LSU students and faculty in the receipt of major national/external awards and in increasing the national and international recognition of the university;
- 3. Supports the academic success of students through structured mentoring and research programs;
- 4. Assists the university in attracting more undergraduate and graduate students, particularly from underrepresented groups;
- 5. Assists in increasing the enrollment and graduation rate of under-represented Ph.D. students in STEM disciplines;
- 6. Provides support to precollege students and teachers.

OSI collaborates with units within the LSU system, the entire state and throughout the nation for the advancement of education, both locally and nationally. The aim is to provide a strong infrastructure for enhancing services that will assist in increasing and improving the learning environment at LSU for all students.

Please visit the OSI website for more information about existing programs and activities, including the application process for students.

#### Office of the Vice Chancellor and Director of Athletics

OFFICE LSU Athletics Administration Building

TELEPHONE 225-578-8001

WEBSITE www.lsusports.net/

The *vice chancellor and director of athletics* manages a broad spectrum of intercollegiate sports programs for men and women. LSU is a charter member (1932) of the Southeastern Conference. LSU meets teams from other major universities in NCAA Division 1A competition in football, basketball (Men's &Women's), baseball, indoor and outdoor track and field (M&W), cross country (M&W), golf (M&W), tennis (M&W), swimming (M&W), women's gymnastics, women's volleyball, women's sand volleyball, women's soccer, and women's softball.

LSU athletic teams have won 46 national championships and 124 Southeastern Conference championships since the beginning of the intercollegiate athletics program in 1893.

#### **Division of Student Affairs**

OFFICE 146 Thomas Boyd Hall

TELEPHONE 225-578-8607

FAX 225-578-6740

WEBSITE www.lsu.edu/studentaffairs

The *vice president for student affairs* focuses on retaining and engaging students for success at LSU and into alumni life. Through programs, services and facilities, the division's professionals enhance learning by fostering critical thinking, ethical responsibility, and the cultivation of active healthy lives to create a university experience that transforms lives.

Departments in the division include Campus Connections, Campus Life, Center for Academic Success, Disability Services, First Year Experience, Greek Life, Medical Clinic, Mental Health Services, Office of the Dean of Students, LSU Olinde Career Center, Orientation, Parent & Family Programs, Residential Life, Student Advocacy & Accountability, Student Financial Management Center, Student Health Center, Student Success, Transfer Student Programs, University Recreation, Veteran & Military Student Services, and Wellness & Health Promotion.

#### **Office of Enrollment Management**

OFFICE	1146 Pleasant Hall
ADMISSIONS TELEPHONE	225-578-1175
ADMISSIONS FAX	225-578-4433
FINANCIAL AID TELEPHONE	225-578-3103
FINANCIAL AID FAX	225-578-6300
E-MAIL	admissions@lsu.edu
WEBSITE	www.lsu.edu

The *Office of Enrollment Management* strives to provide excellent customer service in its efforts to actively recruit prospective students who have demonstrated academic and extracurricular excellence from a wide range of geographic and demographic backgrounds.

This office is considered the "front door to LSU." The office staff welcomes students to the university through campus visits and tours, informative promotional mailings, various recruitment events, and counselor outreach programs. Campus tours are conducted every week day at 10:00 a.m. and 1:00 p.m., except university holidays. Office hours for undergraduate admissions and student aid are 8:00 a.m. to 4:30 p.m., Monday through Friday. Admissions is responsible for processing freshman, transfer, re-entry, international, early admissions/dual enrollment/concurrent, athletic, and visiting student applications. The office is committed to making fair and timely decisions by evaluating prospective student's likelihood of success at LSU based on established educational requirements and admission policies.

Prospective students are encouraged to go to www.lsu.edu for the most up-to-date information regarding admissions to LSU. There, they will be able to apply online, pay online, check their application status, communicate through e-mail, and learn about requirements as well as important deadlines.

Financial Aid administers federally funded financial aid programs and university, state, and privately funded scholarships to assist students in meeting their educational costs. The federal programs include Pell Grants, Supplemental Educational Opportunity Grants (SEOG), Work Study, Perkins Loans, Stafford Subsidized and Unsubsidized Loans, Parent Loan for Undergraduate Student (PLUS), Graduate PLUS Loan for graduate and professional students. All programs are subject to regulations authorized by the U.S. Department of Education, as well as university policies, which are consistent with these federal regulations.

Scholarships are in the form of cash awards, full tuition and nonresident fee exemption, room and board scholarships, and employment opportunities to students who meet certain academic qualifications. Detailed information is available on the Web.

#### Office of the University Registrar

OFFICE	112 Thomas Boyd Hall
TELEPHONE	225-578-1694
FAX	225-578-5991
WEBSITE	www.lsu.edu/registrar

The *Office of the University Registrar* is responsible for maintaining timely and accurate records of academic progress and accomplishments of LSU's students while ensuring the privacy, integrity, and security of those records.

The office strives to provide excellent customer service to students, faculty members, administrators, alumni, and the public in the areas of record keeping, course scheduling, course registration, information management, and data analysis. The Office of the University Registrar uses its central university position to add value to the information that it manages by participating in activities to recruit, retain, and graduate the most academically talented and diverse students possible.

### **Continuing Education**

EXECUTIVE DIRECTOR'S OFFICE	2148 Pleasant Hall
LEARNER SUPPORT OFFICE	1225 Pleasant Hall
TELEPHONE	225-578-2500
FAX	225-578-3090
WEBSITE	www.outreach.lsu.edu

LSU Continuing Education serves thousands of participants each year through credit and non-credit outreach programs that support, promote, and enhance LSU's Strategic Plan. Founded in 1924 to serve nontraditional students, Continuing Education provides flexible programs, using face-to-face and distance delivery methods. To address the diverse needs of lifelong learners, four distinct types of programs are offered: College Credit, Professional Development, Pre-College, and Personal Enrichment. Last year, through Continuing Education programs, LSU reached students of all ages across Louisiana, in every state in the nation, and in 59 countries.

For more information about LSU Continuing Education programs, please see "Continuing Education."

## **Equal Employment Opportunity**

LSU provides equal opportunity for all qualified persons in admission to, participation in, or employment in the programs and activities which the university operates without regard to race, creed, color, marital status, sexual orientation, gender identity, gender expression, religion, sex, national origin, age, mental or physical disability, or veteran's status, as well as to implement a procedure to address complaints for those who believe they have been subjected to discrimination and/or harassment in violation of this policy.

Anyone having questions or complaints regarding equal opportunity at LSU should contact the Office of Human Resource Management, 110 Thomas Boyd Hall, Baton Rouge, Louisiana 70803; telephone 225-578-8200.

### Finances

LSU receives most of its funds from legislative appropriations. To view the current operating budget, please visit the Office of Budget & Planning website at http://www.lsu.edu/bgtplan/.

#### Academic Programs

The State of Louisiana Board of Regents, in its *Master Plan for Higher Education*, designated LSU as Louisiana's single "comprehensive university."

LSU is also the "flagship university" of the state of Louisiana.

LSU students have the opportunity to experience a rich diversity of courses, curricula, students, faculty, and settings that stimulate and challenge individual growth. As the state's comprehensive university, LSU offers numerous choices for intellectual development, career options, and cultural exposure. The undergraduate classroom is enhanced through LSU's research status, ensuring that students are aware of the most recent discoveries and are taught innovative modes of inquiry.

Bachelor's degrees are offered in 69 major fields, a post-baccalaureate certificate is offered in one major field, certificates of education specialist are offered in 2 major fields, graduate certificates are offered in 15 major fields, master's degrees are offered in 76 major fields, and doctoral degrees are offered in 50 major fields.

The university has no more important mission than to provide its students with outstanding learning opportunities. LSU offers programs of study that are both rigorous and exciting. These programs attract bright, energetic students who wish to prepare for the career challenges of the 21<sup>st</sup> century.

#### **Undergraduate Degrees**

Academic programs and services at LSU provide students with the opportunity to obtain a strong general education, explore a variety of fields and majors, and have direct contact with faculty in their major field. Freshmen are admitted to the University College where they either declare a major or examine educational and career alternatives while completing the general education requirements. To complete degree requirements, students must meet the admission requirements of a senior college.

Students select from degree programs offered by ten senior colleges and schools.

*College of Agriculture* Bachelor of Science

#### College of Art & Design

Bachelor of Architecture Bachelor of Fine Arts Bachelor of Interior Design Bachelor of Landscape Architecture

*E. J. Ourso College of Business* Bachelor of Science

**College of the Coast & Environment** Bachelor of Science in Coastal Environmental Science

#### College of Human Sciences and Education Bachelor of Science

Bachelor of Social Work

#### College of Engineering

Bachelor of Science Bachelor of Science in Biological Engineering Bachelor of Science in Chemical Engineering Bachelor of Science in Civil Engineering Bachelor of Science in Computer Engineering Bachelor of Science in Construction Management Bachelor of Science in Electrical Engineering Bachelor of Science in Environmental Engineering Bachelor of Science in Industrial Engineering Bachelor of Science in Mechanical Engineering Bachelor of Science in Petroleum Engineering

*College of Humanities & Social Sciences* Bachelor of Arts Bachelor of Interdisciplinary Studies Bachelor of Science

Manship School of Mass Communication Bachelor of Arts in Mass Communication

*College of Music & Dramatic Arts* Bachelor of Arts Bachelor of Music Bachelor of Music Education

*College of Science* Bachelor of Science Bachelor of Science in Geology

#### Post-Baccalaureate Certificate

A post-baccalaureate certificate program that the university is currently authorized by the Board of Regents to offer is listed below. Please see LSU Online Orientation for additional information.

Post-Baccalaureate Certificate in Construction Management Post-Baccalaureate Certificate in Library Science

#### **Graduate Degrees**

Graduate degrees that the university is currently authorized by the Board of Regents to offer are listed below. Please see "The Graduate School" for additional information.

Master of Accountancy Master of Applied Statistics Master of Architecture Master of Arts in Teaching Master of Arts Master of Arts in Liberal Arts Master of Business Administration Master of Digital Media Arts and Engineering Master of Education Master of Fine Arts Master of Landscape Architecture Master of Library & Information Science Master of Mass Communication Master of Music Master of Natural Sciences Master of Public Administration Master of Science Master of Science in Biological & Agricultural Engineering Master of Science in Chemical Engineering Master of Science in Construction Management Master of Science in Civil Engineering Master of Science in Electrical Engineering Master of Science in Engineering Science Master of Science in Industrial Engineering

Master of Science in Mechanical Engineering Master of Science in Petroleum Engineering Master of Social Work Certificate of Education Specialist Graduate Certificate in Analytics Graduate Certificate in Applied Depositional Geosystems Graduate Certificate in Archival Studies Graduate Certificate in Behavior and Health Graduate Certificate in Climatology and Climate Change Graduate Certificate in Early Childhood Education Graduate Certificate in Econometrics Graduate Certificate in Energy, Law, and Policy Graduate Certificate in Fisheries Science & Assessment Graduate Certificate in Geographic Information Science Graduate Certificate in Instructional Coaching Graduate Certificate in Life Span Studies Graduate Certificate in Materials Science and Engineering Graduate Certificate in Math for Advanced Secondary Instruction Graduate Certificate in Records & Information Management Graduate Certificate in School Librarianship Graduate Certificate in Strategic Communication Graduate Certificate in Teaching in the Healthcare Professions Graduate Certificate in Urban and Community Education Graduate Certificate in Veterinary Medical & Biomedical Sciences Graduate Certificate in Workforce Development Doctor of Design Doctor of Musical Arts Doctor of Philosophy Doctor of Veterinary Medicine Post-Doctoral Certificate in Medical Physics

### **Course Offerings**

Instruction is provided through a wide variety of on- and off-campus courses. The academic year is divided into fall and spring semesters and a summer term consisting of one or more sessions. Most classes are taught between 7:30 a.m. and 10 p.m., Monday through Friday.

The *fall semester* starts in mid-August and ends in mid-December; the *spring semester* lasts from January to May. The *summer sessions* are generally held from early June to early August. There are three intersession terms: between the fall semester and the spring semester, the spring semester and the summer term, and the summer term and the fall semester. During the three-week intensive *intersessions*, students attend classes for approximately three hours each day. Many students take advantage of the summer term and intersessions to expedite graduation, to take courses unavailable during the fall or spring, or to lighten their academic load for the following semester.

Some courses are taught through independent learning, online, or in off-campus locations through Continuing Education. These offerings provide maximum flexibility for students, particularly adult students and those who work during the day. Also available are educational opportunities through ROTC, the "Artist and Lecture Series," the LSU Olinde Career Center, LSU-Baton Rouge Community College Cross-Enrollment Program, and LSU-Southern University Cooperative Programs.

### **Special Programs**

**Continuing Education** offers instruction to traditional and non-traditional students by extending the educational services of LSU through a wide range of outreach efforts. Programs include on- and off-campus credit and noncredit courses and certificate programs; distance learning programs; programs for professional advancement, conferences,

seminars; precollege programs, intensive English, lifelong learning programs, leisure courses, and other specialized instructional programs. For more information, see "Continuing Education" in this catalog.

The **Cox Communications Academic Center for Student-Athletes** (CCACSA) is comprised of an academic affairs team, a student affairs team, and an information technology team. Collectively, the purpose is to provide an all-inclusive student-centered support structure for all student-athletes from matriculation through graduation and life beyond.

### **Artist and Lecture Series and Lectureships**

LSU sponsors artist and lecture series and lectureships to foster intellectual inquiry, stimulate dialog, and cultivate unique experiences with outstanding performance in a variety of fields. Among these programs are:

- Aesculapian Lecture Series in Veterinary Medicine
- Art & Design Russell Chair Visiting Professorship
- Senator John Breaux Annual Symposium in Media and Public Affairs
- Chancellor's Distinguished Lectureship Series
- Coastal Sustainability Studio Lecture Series
- College of Science Inclusive Excellence Lecture Series
- Max Z. Conrad Lecture Series
- LSU Curriculum Theory Project Distinguished Lecture Series
- Deep South Conference in Communication Sciences & Disorders
- Delta Mouth Literary Festival
- Department of Entomology Distinguished Speaker Series
- Design Week Visiting Critic, Robert Reich School of Landscape Architecture
- School of Library & Information Science SLIS/LAA Diversity Interest Group Mentoring Program
- J. Norman Efferson Lectureship Series
- Festival of Contemporary Music
- Walter Lynwood Fleming Lectures in Southern History
- Frank J. Germano Lecture Series in Civil Engineering
- Sid Fuchs Seminar Series in Mechanical and Industrial Engineering
- Max Goodrich Distinguished Speaker Series in Physics and Astronomy
- Jerry B. Graves Distinguished Seminar Series in Entomology
- Giles Wilkeson Gray Lecture Series in Communication Studies
- Alfred C. Glassell Jr. Lecture Series
- Holt B. Harrison/Harrison Paint Co./Elmira H. Harrison Lectureship
- History Graduate Student Association Annual Conference
- Walter Hitesman Lecture Series in Mass Communication
- Hubert H. Humphrey Lectureship in Public Affairs
- J. W. Kistler Conference
- W. A . Lawrence Lecture
- School of Library & Information Science Beta Phi Mu Lecture Series
- Louisiana Environmental Lecture Series of the Coast and Environment
- The Louisiana Natural Resource Symposium
- LSU School of Art Artist in Residence
- Paula G. Manship College of Art & Design Lecture Series
- Paula G. Manship School of Music Guest Artist Series
- Marathon Speaker Series in Geology
- Modern History Colloquium
- Grover E. Murray Lecture Series in Geology

- E. J. Ourso College of Business/LSU Flores MBA Alumni Association Louisiana Looking Up
- Pasquale Porcelli Distinguished Lecture Series in Mathematics
- Patrick Lecture Series in Nutrition, Food Science, and Wetland Science
- The performance studies area in the Department of Communication Studies presents performances of literature, performance art, and experimental productions designed by students, faculty, and guest artists throughout the academic year.
- Plant Pathology & Crop Physiology Graduate Student Invited Lecturer Series
- The Program of Comparative Literature regularly hosts regional meetings of the Association of Literary Scholars, Critics, and Writers.
- Evelyn Pruitt Geography Lecture Series
- Readers & Writers Literary Forum
- Renewable Natural Resources Seminar Series
- Janice R. Sachse Visiting Artist Series
- Biological Sciences Charles Schexnayder Lectures in Plant Biology
- School of Architecture Lecture Series
- The Underpass/Small Bar Reading Series
- Visiting Poets Series
- Edward Douglass White Lectures on Citizenship
- L. J. Wilbert Memorial Lectures in Geology
- School of Music–Throughout each year, the School of Music presents a comprehensive series of concerts involving faculty and student performers; orchestras; wind ensembles; jazz groups; gospel choirs; choral ensembles; chamber music; and opera.
- LSU Theatre and Swine Palace present six major productions each year featuring students, faculty, and professional artists as well as a Lab Season of student-directed workshop productions and the annual LSU Dance Concert.
- Engendering Scholarship Lecture Series in Women's & Gender Studies
- LSU Graduate Philosophy Conference
- Philip William West Lectureship in Analytical Chemistry
- Dr. Benjamin Pierre Boussert Lecture Series for Chemistry
- College of Human Sciences & Education's Quality of Life Lecture Series The college's mission is an important one to educate students who are dedicated to improving quality of life across the lifespan. Each school within the college invites an expert to speak about addressing the complex education, health, information, and human issues facing our society.
- College of the Coast & Environment Seminar Series

### **Board of Regents' Academic Policy**

The university conforms to Board of Regents' requirements to ensure consistency of official documentation with the Regents' *Inventory of Degree and Certificate Programs*. The following standardized terms are used in LSU catalogs, diplomas, commencement programs, transcripts, and other official documents.

**Degree** • The title of the award conferred on students by a college, university, or professional school upon completion of a unified program of study (i.e., Bachelor of Arts, BA; Bachelor of Science, BS; Master of Science, MS; Master of Fine Arts, MFA; Master of Landscape Architecture, MLA; Doctor of Philosophy, PhD, etc.).

**Degree Program** • A grouping of campus-approved courses and requirements (i.e., minimum GPA, comprehensive examinations, English and mathematics proficiency) that, when satisfactorily completed by a student, will entitle him or her to a degree from a public institution of higher education.

**Degree Designation •** A degree designation for each authorized program at public institutions of higher education is listed in the Board of Regents' *Inventory of Degree and Certificate Programs*. Some professional programs require the name of the general subject area as part of the degree designation (i.e., Bachelor of Architecture, BArch; Master of Social Work, MSW; Juris Doctorate, JD, etc.).

**Degree Subject Area** • The primary discipline that constitutes the focus of a degree program. (For example, a Bachelor of Arts in history. In some cases, the degree subject area is part of the degree title, as in Bachelor of Architecture, Master of Landscape Architecture.) When a student satisfactorily completes a degree program, he/she will be entitled to a degree in the appropriate subject area (i.e., biology, history, English, etc.)

**Degree Title** • The complete label of a degree program, consisting of the degree designation and the degree subject area (i.e., Bachelor of Arts in history; Bachelor of Science in chemistry).

Curriculum • A description of the required and elective courses for a degree program.

**Major** • That part of a degree program that consists of a specified group of courses in a particular discipline or field. The name of the major is usually consistent with the degree subject area. A major usually consists of 25 percent or more of the total hours required in an undergraduate curriculum. Establishment of a major requires prior approval by the Board of Regents.

**Minor** • That part of a degree program that consists of a specified group of courses in a particular discipline or field. The minor usually consists of 15 percent or more of the total hours required in an undergraduate curriculum. Minors do not require prior approval by the Board of Regents.

**Concentration** • An alternative track of courses within a major, accounting for at least 30 percent of the *major* requirements. Establishment of a concentration does not require prior approval by the Board of Regents. Transcripts list degree titles, majors, minors, and concentrations. Diplomas list only the appropriate degree designations.

Undergraduate degrees that the university is currently authorized by the Board of Regents to offer are presented in this table by college. Minors within degree programs are listed in this table . Please consult the appropriate senior college section for more information.

#### **Student Resources**

The university is committed to the concept of student growth, development, and academic success through active participation in the university's living-learning environment. Students will maintain and develop their physical and mental health, sense of self-worth, ability to work with and lead others, understanding of citizenship obligations, concern for the campus environment, ability to think critically and ethically, and a sense of belonging to the university and global communities. To foster development of these qualities, a comprehensive range of programs and services has been designed for students to encourage full participation in the life of the university; to promote intellectual development, leadership, and civic responsibility; and to contribute to personal growth.

### **Division of Student Affairs**

OFFICE	146 Thomas Boyd Hall
TELEPHONE	225-578-8607
FAX	225-578-6740
WEBSITE	www.lsu.edu/studentaffairs

#### African American Cultural Center

OFFICE	3 Union Square, Raphael Semmes Rd.
TELEPHONE	225-578-1627
FAX	225-578-1504
WEBSITE	www.lsu.edu/aacc

The *African American Cultural Center* (AACC) implements educational, cultural, and social activities that acknowledge and address the needs of African American students at LSU. Through programmatic efforts, the center also provides a venue for all students to learn about the African American culture, heritage, and traditions thereby striving to create a better knowledge and understanding of the African American experience.

### **Campus Life**

OFFICE	358J LSU Student Union
TELEPHONE	225-578-5160
FAX	225-578-9311
WEBSITE	www.lsu.edu/campuslife
E-MAIL	campuslife@lsu.edu

The mission of *Campus Life* is to enhance student learning through innovative initiatives focused on the core tenets of involvement, leadership, and service that enrich the LSU experience. Campus Life supports these innovative initiatives through leadership development, large- and small-scale student activities, student organizations, and volunteerism.

*Activities* - With a professional programming staff to advise its members, the Student Activities Board seeks to educate and entertain the campus while developing the newest generation of student leaders on campus. The Homecoming Student Committee develops activities to engender a sense of community with prospective, current, and former

students who return as alumni. Whether it is musical performances, hot topics, popular culture, or exposure to cultural events, students can always find something to do on campus.

*Service* - With its campus and community service programs and networking opportunities, Campus Life's three service organizations make campus, local, national, and international impacts on others. Volunteer LSU coordinates major campus service traditions like Community Bound, as well as dozens of smaller projects around the state, and both domestic and international service trips annually. Kitchens On The Geaux promotes greater awareness of issues of hunger in the community, works to reclaim food for the hungry, and supports the daily operations of the LSU Food Pantry. Geaux Big Baton Rouge hosts one big day of service to unite the campus with the greater community in a day of thanks.

*Campus Involvement and Student Organizations* - With approximately 400 registered student organizations, there is a place for every LSU student to be involved on campus. Campus Life provides the oversight, support, and training for student organizations and manages an online hub of involvement opportunities and organization portals. For the most up-to-date list of student organizations and opportunities, visit the TigerLink page.

*Leadership Development* - Leadership development is an integral part of a student's success at LSU. In Campus Life, staff and students implement campus-wide leadership development programs to enhance the academic experiences of the student body, such as coordinating leadership conferences and providing specific training for individuals who wish to become campus leaders.

Through these experiences, Campus Life intends to mold students into well-rounded individuals, both inside and outside of the classroom.

#### LSU Olinde Career Center

OFFICE	158 LSU Student Union
TELEPHONE	225-578-2162
FAX	225-578-8927
WEBSITE	www.lsu.edu/careercenter
E-MAIL	career@lsu.edu

The mission of the *LSU Olinde Career Center* is to assist students and alumni in choosing careers, obtaining careerrelated work experiences while in school, developing job search skills, and securing employment or admission to graduate or professional school.

Undergraduates are encouraged to follow their recommended paths throughout their college years to fully prepare themselves to develop the skills, experience, and confidence to transition successfully from college to career. Students are also encouraged to enrich their studies and prepare for their careers by using the Four Year Career Plan in addition to their academic course of study.

Graduate students are likewise encouraged to clarify their career objectives and develop their professional skills outside the classroom by following the Career Plan for Graduate Students.

*Career Decision-Making* provides assistance in self-assessment for the purpose of planning a career. Services include choosing the right major and career; career testing and interpretation; specialized programming for first-year students; and the Chevron Workforce Development Center.

*Experiential Education* combines academic study with on-the-job, career-related work experience. Cooperative education programs, internships, summer jobs, part-time jobs, and volunteer opportunities are all offered to assist students in this area.

Job Search teaches lifelong skills in finding employment. Services available include individual appointments, addressing résumés, cover letters, networking, interview, job search strategies, and assistance with the graduate school application process.

Employment Services connects students and alumni with employers. Careers2Geaux, On-Campus Interviewing Program, résumé referrals, and other recruiting events are all available for the benefit of LSU students and alumni.

#### **Center for Academic Success**

OFFICE	B31 Coates Hall
TELEPHONE	225-578-2872
FAX	225-578-2696
WEBSITE	www.lsu.edu/cas
E-MAIL	cas@lsu.edu

The internationally-recognized Center for Academic Success (CAS), is certified as a national Learning Center of Excellence and serves as the central learning center at LSU. The CAS offers free resources that help all students maximize their academic experience, from first year through graduate and professional school. The CAS provides a cognitive science-based approach to assisting students, offering creative and personalized strategies to ensure academic success.

Tutorial Services: The Shell Tutorial Center offers walk-in tutoring in math, biology, chemistry, physics, select foreign languages, and other courses and is equipped with computers for independent use. CAS also sponsors access to free online tutoring and a fee-based tutor matching service.

Supplemental Instruction (SI): Peer-led group study sessions are offered in select historically difficult courses. SI leaders facilitate regularly scheduled study sessions each week to help students master course concepts, develop testtaking skills, and learn more efficient study strategies.

Academic Empowerment: CAS offers academic coaching sessions, workshops, presentations, and online resources on topics such as test preparation, time management, note-taking, overcoming test anxiety, college reading strategies, concept mapping, and studying techniques.

For details on all Center for Academic Success services and support, log on to www.lsu.edu/cas.

#### The Center for Community Engagement, Learning & Leadership (CCELL)

OFFICE	109 E. B. Doran Hall
TELEPHONE	225-578-4245
WEBSITE	www.lsu.edu/ccell
E-MAIL	ccell@lsu.edu

The Center for Community Engagement, Learning & Leadership (CCELL) promotes service-learning and civic engagement designed to advance learning outcomes, to develop leaders with the highest sense of civic responsibility, and to address societal needs through community-university partnerships.

CCELL facilitates service-learning courses in which students take part in credit-bearing, organized service activities that simultaneously meet learning objectives and community needs. Approximately 4,000 students participate in service-learning courses each year.

CCELL is working with Campus Life to enact the Engaged Citizens Program, a distinction that undergraduate students can pursue if they are interested in achieving the highest levels of civic responsibility. Students who complete at least 7 credit hours of service-learning courses, log a minimum of 100 hours of community service with approved organizations, and complete a paper connecting these activities with LSU's Commitment to Community will be awarded the Engaged Citizen distinction, which will appear on their transcript.

CCELL endeavors to meet the needs of our constituents through pertinent programming. For example, CCELL works with CxC and LSU faculty each fall to offer eligible LSU seniors and first year graduate students a workshop series to assist them in applying for the National Science Foundation (NSF) Graduate Research Fellowship. CCELL also offers support to our community partners through workshops and opportunities to engage with students, faculty, and staff.

CCELL provides a number of services to faculty who are engaged in service-learning, including but not limited to: consulting with faculty in course development, syllabus design, and the scholarship of engagement; and functioning as a liaison between faculty and community partners. Additionally, CCELL offers two competitive faculty development opportunities. The Service-Learning Faculty Scholars program is a 10-week seminar in which faculty learn to integrate service-learning into a new or existing course. The Community Engaged Research Scholars program is intended for veteran service-learning faculty who wish to create a piece of scholarship from their engaged work.

The Community Engagement Advisory Council articulates and promotes the objectives of CCELL. The council develops strategies and provides leadership to advance service-learning and civic engagement, and assists CCELL in selecting the annual recipient of the Service-Learning Outstanding Faculty Award. CCELL also recognizes the outstanding engagement work of students, community partners, staff, and faculty through the annual Happy Awards program.

#### **Communication across the Curriculum (CxC)**

OFFICE	208 Coates Hall
TELEPHONE	225-578-7795
FAX	225-578-6973
WEBSITE	www.cxc.lsu.edu
E-MAIL	cxc@lsu.edu

*LSU Communication across the Curriculum* (CxC) is a nationally recognized academic enhancement program that collaborates with faculty to help students of all majors advance their written, oral, visual, and technological communication skills

CxC provides the following services for all undergraduates:

- Individualized coaching on communication assignments, including writing and oral presentation projects
- Access to communication technologies, including audio, video, and 3D visualization tools
- Guidance in creating public digital portfolios for post-graduation success
- Workshops and experiential learning opportunities focused on communication skills-building
- Recognition on transcripts of completion of communication-intensive courses within the disciplines
- Mentoring for students pursuing the LSU Distinguished Communicator Certification

CxC provides the following services for all faculty:

• Individualized consultations on syllabus, assignment, and assessment design

- Workshops and interdisciplinary learning communities focused on advancing communication-intensive learning and teaching
- Supplemental instruction resources for Certified Communication-Intensive Courses
- Assistance with grants and scholarship related to advancing students' communication skills and communication pedagogy within the disciplines

CxC programming and policies are developed and regularly reviewed in collaboration with LSU faculty, students, staff, administrators, and community partners.

### **Community University Partnership**

CAMPUS OFFICE	3960 W. Lakeshore Drive
CAMPUS TELEPHONE	225-578-8699
CAMPUS FAX	225-578-5980
ALTERNATE LOCATION	
COMMUNITY OFFICE	950 E. Washington St., Baton Rouge, LA 70802
COMMUNITY TELEPHONE	225-387-5131
COMMUNITY FAX	225-387-5132
WEBSITE	www.lsu.edu/cup
E-MAIL	lsucup@lsu.edu

The *Community University Partnership* (CUP) builds relationships between campus and community groups, activists, schools and interfaith networks. Through its efforts, CUP promotes civic engagement, increases cultural competency, challenges historic sentiment, and develops new strategies to accommodate the changing demographics of our community.

## **Office of the Dean of Students**

OFFICE	333 LSU Student Union
TELEPHONE	225-578-9442
FAX	225-578-9441
WEBSITE	lsu.edu/deanofstudents
EMAIL	dos@lsu.edu

LSU provides a wide variety of opportunities for students to get involved, utilize resources, and make a positive difference in the community. The staff within the Office of the Dean of Students [ODOS] are committed to facilitating diverse experiences that lead to student success. Our departments include Campus Life, Disability Services, Greek Life, and Student Advocacy & Accountability. The staff also advise and provide administrative support for Student Government.

LSU's Commitment to Community serves as a guiding document to assist the entire LSU campus in having pride in our institution and respecting the people who faithfully commit to the principles within the commitment to community. To promote these principles, the Office of the Dean of Students recognizes 12 outstanding seniors, known as the Tiger Twelve, who contribute positively to the life of the campus and surrounding community.

In addition to facilitating and celebrating student leadership, staff members also serve as advocates for student interests and are committed to providing a safe campus environment. The Associate Vice President and Dean of Students also serves as the LSU Deputy Coordinator for Title IX, ensuring the investigative team follows the current process under LSU's Permanent Memorandum 73 (PM-73) for Title IX and Sexual Misconduct Policy.

## **Disability Services**

OFFICE	124 Johnston Hall
TELEPHONE	225-578-5919
FAX	225-578-4560
WEBSITE	lsu.edu/disability
E-MAIL	disability@lsu.edu

Disability Services (DS) provides accommodations and support services to students with hearing, mobility, visual, psychological, and learning disabilities. Services are also available to students who experience temporary disabilities, like a broken arm that may prevent one from taking notes, or who have other functional limitations resulting from chronic or intermittent health problems, such as arthritis, diabetes, epilepsy, and multiple sclerosis. Specialized support services are based on the individual student's disability-based needs.

Services include coordination of in-class accommodations, including note takers and sign-language interpreter services, and liaison and referral to on- and off-campus resources, services, and agencies. The terrain of the LSU campus is mostly flat, and a network of curb cuts and ramps are in place for accessibility. Disability Services also works with you on an individual basis to identify and make recommendations on accessibility to specific structures and equipment on campus.

# **First Year Experience**

OFFICE	128 Johnston Hall
TELEPHONE	225-578-1188
FAX	225-578-4820
WEBSITE	www.lsu.edu/fye
E-MAIL	fye@lsu.edu

*First Year Experience (FYE)* offers programs, resources, and outreach to assist students in transition to life at LSU. Through interactive programming and individual strategy sessions, FYE ensures a quality experience at the university. Students who take advantage of FYE programming typically feel more connected to the community and experience success. FYE signature programming includes:

*Bengal Bound* – LSU's official Welcome Week with more than 80 events highlighting campus resources and programs. The events encompass all aspects of the student experience.

*STRIPES* – A four-day, three-night program during the summer, where students learn the history and traditions of LSU. Through sessions on academics, leadership, service, and university traditions, STRIPES connects students to campus resources and support to ease the transition to college.

*Strategy Sessions* – Students are assigned staff contacts based on the first letter of their last name at the beginning of the year. FYE staff can answer any questions that first year students may have about getting involved or finding their place.

Student Success Series - FYE offers a number of ongoing programs including Bengals Beyond Bayou, Bengal Book Group, Commuter Programs, and First Fridays.

Tiger Transition Team (T3) – Nobody knows how to do LSU better than a current LSU student. Incoming students sign up for a peer mentor with a similar academic background or interest. Mentors help their mentees navigate the first semester at LSU.

# **Greek Life**

OFFICE	472 LSU Student Union
TELEPHONE	225-578-2171
FAX	225-578-2450
WEBSITE	lsu.edu/greeks
E-MAIL	greeks@lsu.edu

Greek Life transforms lives by supporting and facilitating opportunities and experiences within the Greek community to discover, engage, and learn while fostering an environment for peer accountability based on fraternal values.

Greek Life strives to develop a community that enables individuals to achieve the highest standards of personal integrity and civic engagement for leadership in a global society.

Greek Life provides support for individuals and organizations that comprise the fraternal community at LSU. Greek Life staff members develop, implement, and coordinate programs and services that address member education, personal development, academic success, philanthropic activities, leadership development, and social activities. Visit our website for a current list of fraternity and sorority chapters and send us an email if you have any specific questions or inquiries.

# **Multicultural Affairs**

OFFICE	335 LSU Student Union Building
TELEPHONE	225-578-4339
FAX	225-578-7135

WEBSITE www.lsu.edu/oma

The Office of Multicultural Affairs (OMA), a unit of the Office of Diversity, creates an environment at LSU that embraces individual difference, advocates for social justice and cultivates a campus atmosphere of inclusion. The Office of Multicultural Affairs strives to create an environment for all students, particularly students of color and traditionally underrepresented groups, as scholars, learners, and change agents. We are a premier model of collaborative and equitable programs and services in cultivating intentional solutions to complex and emerging challenges to diversity and inclusion that empowers and engages all members in examining multidimensional perspectives of personal and cultural engagement through intellectual curiosity and advocacy, for the benefit of the entire university and the world.

## **Parking & Transportation Services**

OFFICE	Public Safety Building
TELEPHONE	225-578-5000
FAX	225-578-5588
WEBSITE	www.lsu.edu/parking
E-MAIL	parking@lsu.edu

LSU is committed to providing sufficient on-campus parking and transportation for all students, employees, and visitors. To legally park a vehicle on campus, faculty, staff, and students must register and obtain a permit from *Parking & Transportation Services*. Parking & Transportation Services also provides *Campus Transit Safe Ride*; this is a safe and convenient method of on-campus transportation for students to move around campus in the evening and late night hours. Parking & Transportation Services also provides a campus-wide bus service that operates on and off campus. The *LSU Tiger Trails Transit System* provides a safe, convenient, and free bus service for LSU students, faculty, staff, and visitors. For more information on bus routes and hours of operations, please visit the Parking & Transportation website and download the *TransLoc* app, which provides approximate arrival/departure times at all bus stops as well as a GPS virtual map of bus locations.

For additional information, call 225-578-5000.

## **LSU Police Department**

OFFICE	Public Safety Building
TELEPHONE	225-578-3231
FAX	225-578-3421
WEBSITE	lsupd.com

LSU is dedicated to preserving a peaceful and safe environment for the entire university community. Students, faculty, staff, and visitors are urged to be aware of and alert to the possibility of criminal activity on campus and to report all crimes or suspicious activity to the *LSU Police Department*. If you "See Something, Say Something."

The LSU Police Department is organized as a traditional police department and officers are commissioned with statewide arrest authority per Louisiana Revised Statute 17:1805. All officers receive training that exceeds state standards and provide services 24 hours every day, 365 days a year. The LSU Police Department offers a variety of resources for crime deterrence and response, including uniform patrol, motorcycle and bicycle patrols, K-9 officers, investigators, and other support services. LSU officers work closely with other local law enforcement agencies as well as the Baton Rouge Fire Department and East Baton Rouge EMS, who provide fire and emergency medical services to LSU.

The LSU Police Department recently launched the *LSU Shield* Mobile Safety and Security application. This application provides a variety of safety resources for students, staff, faculty and visitors. For more information about the LSU Police Department, *LSU Shield* app, crime statistics, safety tips, crime prevention programs or personal safety, visit www.lsupd.com.

#### Student-Right-To-Know (Clery) Act

Louisiana State University's annual security report includes statistics for the previous three years concerning reported crime that occurred on campus and in certain off-campus buildings owned or controlled by LSU.

This report also includes institutional policies concerning campus security, such as alcohol and drug use, crime prevention, the reporting of crimes, sexual assault, and other matters.

Information in compliance with the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act can be obtained via the LSU Police website, or by contacting the LSU Police Department at 225-578-3231.

# **Residential Life**

OFFICE	99 Grace King Hall
TELEPHONE	225-578-8663
FAX	225-578-5576
WEBSITE	http://lsu.edu/reslife/
E-MAIL	reslife@lsu.edu

The Louisiana State University (LSU) Department of Residential Life is committed to providing students with meaningful living-learning experiences as a means of supporting the quality of undergraduate programs and specifically the first-year experience. Students who live on campus consistently have higher GPAs, have a higher percentage of students that return to LSU for their second year (retention rate), have higher graduation rates, and have more opportunities to become part of the LSU community.

In campus residence halls and apartments, students enjoy a natural and convenient social setting seldom more than a 10-minute walk from the library, classes, or campus activities surrounded by a supportive live-in staff available to assist with concerns and questions. The Residential Life staff and community council of each building help students feel part of a dynamic environment, where lifelong friendships are formed, leadership skills learned, and personal growth experienced. Housing staff and faculty members also provide informative programs related to safety, wellness, community service, and a variety of other topics. All residential communities participate in the Faculty-in-Residence Program, where an LSU faculty member and his or her family live on campus, interact with residents by participating in programs, and encourage socialization with faculty members in a less formal environment outside the classroom.

### **First-year Housing Expectation**

Beginning with the freshman class of 2018, all LSU first-year, full-time students are expected to live on campus. Once students are accepted into LSU, they should register for on-campus housing or request an exemption to the housing expectation in myLSU. Details about the housing expectation and exemption terms are available at lsu.edu/exemptions.

#### **Choices in Residential Living**

Undergraduate residence halls are organized as residential colleges and traditional halls. Traditional residence halls (non-residential college) are open to all students of all majors, and let students meet a diverse group of peers where they live.

Residential colleges enjoy all the same amenities and features of traditional residence halls, but they also maximize the on-campus living experience for first-year students by creating smaller communities based on common majors or interests and fostering greater student-faculty interaction beyond the classroom. Students participating in the residential colleges reside in the same facility and must enroll in two special sections of general academic courses per semester taken with other residential college students. Some of these classes may be offered in classrooms in the residence halls. With greater academic emphasis and faculty involvement, the residential college atmosphere encourages studying, provides access to exceptional academic and social support, and makes it easy to establish new friendships. For more information regarding residential college and course requirements, visit www.lsu.edu/residentialcollege.

- Career Discovery Residential College (CDRC) in Spruce Hall
- The Honors House in East and West Laville Halls
- Agriculture Residential College in Blake Hall

- Business Residential College in Residential College One West Hall
- Engineering Residential College in Residential College One North Hall
- Human Sciences & Education Residential College in Cypress Hall
- Humanities & Social Sciences Residential College in Residential College One South Hall
- Mass Communication Residential College in Residential College One South Hall
- Science Residential College in the Horseshoe Community
- Visual & Performing Arts Residential College in Broussard Hall

Upperclassmen, graduate, law and vet med students can choose to live in *East Campus Apartments* (ECA), *West Campus Apartments* (WCA), or Nicholson Gateway Apartments on campus. Campus apartments rent by the individual room, are fully furnished, and offer academic-year leases or 12-month leases.

Edward Gay Apartments are available to full-time LSU students 21 years or older, graduate students, married students, post-doctoral students or single parents. **Priority is given to families** first in this convenient, affordable housing option that rents by the whole apartment and is unfurnished except for stoves and refrigerators.

Get details of all housing options, including safety measures, room styles, and staffing, at www.lsu.edu/housing.

### Housing Applications, Contract and Room Assignment

All housing application and room assignment details – including the application, application status, roommate matching, and room assignment information – are all available in the housing portal in myLSU (myLSU>Student Services>On-Campus Housing).

Students contract for space on an academic-year basis. The contract is effective on the date it is submitted online or canceled by the student. Refund of room rent will be made according to the terms in the contract. For further details, contact the Department of Residential Life at reslife@lsu.edu or visit lsu.edu/cancelhousing for full cancellation details.

Housing application, room assignments, and other housing considerations go by the date the housing application was completed - not the university application or enrollment deposit date.

The online housing application is considered complete after receipt of \$250 advance rent, \$50 application fee, and a \$10 processing fee. The application fee and processing fee are non-refundable. The advance rent is applied toward the student's rent on the student fee bill, and is refundable for incoming students on a staggered scale based on the date a student cancels his/her housing application. Current residents participating in contract renewal forfeit the entire \$250 at any time of cancellation.

The university reserves all rights in connection with assignment of rooms, inspection of rooms, termination, and occupancy of rooms. Reservations are not transferable. If the room is not occupied by 11:59 p.m. on the first day of class, the reservation is forfeited unless notification stating the time of late arrival has been received. Get details of the cancellation, refund, and fee schedule at lsu.edu/cancelhousing. Other terms of residence hall occupancy are provided in the housing contract. Room reservations in fraternity or sorority houses are limited to eligible members of those organizations and are made directly with the organization. Review all policies in the Living on Campus Handbook and Housing Contract at www.lsu.edu/housing.

On-campus housing is available to full-time students in the fall and spring semesters. In the summer, students must be at least half-time (6-8 hours) to live on campus for the summer term.

#### **Rates for Residence Halls and East and West Campus Apartments**

Published on-campus rental rates for residence halls and apartments are per semester, per student. Refer to the Residential Life website for a listing of current rates. Semester rental rates are subject to change at the beginning of a regular semester or summer term.

Residence hall rent is due by the deadline established on the fee bill. Additional information concerning residence hall accommodations may be obtained from the Department of Residential Life, 99 Grace King Hall, 225-578-8663 or on the website at www.lsu.edu/housing.

# Student Advocacy & Accountability

OFFICE	340 LSU Student Union
TELEPHONE	225-578-4307
FAX	225-578-5637
WEBSITE	lsu.edu/saa
EMAIL	dossaa@lsu.edu

Student Advocacy & Accountability (SAA) utilizes the LSU Commitment to Community as a guiding principle. The belief is that students should not only accomplish academic goals, but also to do so in a healthy and encouraging environment which fosters personal growth and development. SAA promotes academic integrity and appropriate standards of conduct for the university. SAA is responsible for investigating alleged violations of university policy/standards and for implementing the accountability process as outlined in the LSU Student Code of Conduct. This is accomplished through educational outreach, accountability meetings, university hearing panels, and behavioral interventions for individual students and student organizations.

LSU Cares is a university initiative dedicated to the well-being of students and promotion of a community that cares about each of its members. LSU offers an online reporting system (lsu.edu/lsucares) to help students, faculty, staff, families, and friends submit reports about:

- potential violations of the LSU Code of Student Conduct;
- concerns regarding sexual misconduct and hazing;
- concerns surrounding acts of bias or discrimination;
- complaints or grievances; and
- concerns about students in crisis or distress.

When a report is received, SAA staff will review the details using a CARE approach (Communicate, Assess, Refer, Educate) and then determine a response that includes appropriate campus resources. Visit the SAA website for greater detail on the processes and services Student Advocacy & Accountability provides our community.

### **Student Government**

OFFICE	150 LSU Student Union
TELEPHONE	225-578-8727
FAX	225-578-8747
WEBSITE	www.lsu.edu/sg
EMAIL	sg@lsu.edu

Student Government (SG) advocates for the interests of LSU students and enhances the student experience by promoting the image of the university, while supporting student achievement on campus and in the community. SG works with the University administration to develop policies and procedures that relate to academics, student life, and business affairs such as parking and transportation.

SG includes an executive, judicial (University Court), and legislative (Student Senate) branch. College Councils report to the executive branch and represent the interests of students from each academic college. Elections are held in the Fall and Spring semesters. SG also appoints students to serve on various campus committees.

SG manages student and state funds to support student initiatives, student organization and a variety of campus events. Some of the events and initiatives coordinated by SG include free testing materials, a shuttle to the airport during the holidays and a concert in the Spring that is open to students and the Baton Rouge community.

## **Student Health Center**

OFFICE	Student Health Center Building
TELEPHONE	225-578-6271
FAX	225-578-5655
WEBSITE	www.lsu.edu/shc

The *Student Health Center* provides quality, affordable health care to LSU students. It is fully accredited by the Accreditation Association for Ambulatory Health Care (AAAHC). The Health Center provides collaborative care in the out-patient clinic, which includes medical, mental health, and wellness and health promotion services. All visits and inquiries are confidential. The student health fee, paid by full-time students and students who register for six or more hours during the summer, entitles students to use many of the services of the Student Health Center at no additional charge. There are additional charges for laboratory tests, diagnostic imaging, and medical procedures.

The *Medical Clinic* is staffed by primary care and women's health clinicians and a number of registered nurses. In addition, part-time specialty services are offered in orthopedics, dermatology, and ear/nose/throat.

*Mental Health Service* offers crisis intervention and individual and group therapy. These services are provided by mental health clinicians experienced in treating emotional problems and stresses experienced by university students. In addition, the unit coordinates the efforts of a multi-disciplinary Eating Disorders Treatment Team.

*Wellness and Health Promotion* provides education and outreach to the campus community. Individual coaching sessions are available on a variety of issues, including nutrition and weight management; stress and time management; sexual and reproductive health; alcohol and other drug abuse; smoking cessation; sexual assault and interpersonal violence; and many others. Educational programs for student organizations and residence halls, as well as guest lectures for undergraduate and graduate classes, are available upon request throughout the year. The unit also houses the Lighthouse Program, a comprehensive sexual violence prevention, support and referral resource.

## **Student Media**

OFFICE	B-39 Hodges Hall
TELEPHONE	225-578-1697
FAX	225-578-1698
WEBSITE	www.lsu.edu/studentmedia

The *Office of Student Media* oversees operation of KLSU-FM, "The Gumbo" year book, *Legacy* magazine, *The Daily Reveille*, TIGER-TV, and an advertising and marketing division. These media outlets provide news and entertainment to students, faculty, and staff and training for students interested in journalism and publishing. All Student Media properties have received numerous regional and national awards.

*The Daily Reveille*, the university's student-edited newspaper and website, is published Monday through Friday during the fall and spring semesters and Tuesdays and Thursdays during the summer term. "The Gumbo" is distributed during the fall semester. Students also edit and publish the LSU student magazine, *Legacy*, which is distributed on campus four times annually. *KLSU-FM* is a 5,000-watt educational FM station operated by students 18 hours a day, seven days a week. Tiger TV produces both news and entertainment programming for the LSU Campus Cable System.

# **Auxiliary Services**

OFFICE	310 LSU Student Union
TELEPHONE	225-578-5124
FAX	225-578-4329
WEBSITE	www.lsu.edu/union
E-MAIL	uas@lsu.edu

*Auxiliary Services* manages student service-related contracts including the LSU Student Union, LSU Barnes & Noble Bookstore, LSU Dining, Tiger Card Office, Event Management and Promotions, LSU Vending, LSU Laundry, and The UPS Store Mail & Copy Services. The *LSU Student Union*, located in the heart of campus, is the home of the Union Art Gallery, Union Theater and Box Office, ATMs, and retail partners such as Campus Federal Credit Union, Cox Communications, and Kaplan Test Prep.

Please refer to our website, www.lsu.edu/union, for more information.

### LSU Student Union

The *LSU Student Union*, located in the heart of campus, serves as LSU's community center by providing facilities, services, and programs for students, faculty, staff, alumni, and friends of the university. The union is supported by student fees and by a variety of retail and service enterprises located in the building.

The building is the site for a wide range of programs and events designed to appeal to all segments of the university community. These programs include lectures, performing arts, visual arts, films, concerts, comedians, and more. Information on programs, student committees, and student leadership opportunities in the union are available in Room 310 and in the Campus Life Office, Room 358.

The union provides a variety of facilities, services, and conveniences to meet the needs of the campus community. LSU Dining offers the Tiger Lair food court, with Chick-fil-A, Panda Express, and other popular brands; the Magnolia Room restaurant, Einstein Bros. Bagels, and a McDonald's restaurant. LSU Catering offers a full line of catered services for banquets and luncheons.

Banking machines (ATMs) are located on the first floor. The university's ID card operation and the TigerCASH debit card services are located in the Tiger Card Office. Campus Federal Credit Union offers student accounts and has a branch located on the first floor of the union. Also located on the first floor are the Olinde Career Center, Cox Communications, Kaplan testing services and the Live Oak Lounge, which provides a view of the Memorial Oak Grove. The UPS Store at LSU, located on the ground floor of the union, offers copy and print services, mailbox rental and package receipt services to students, faculty, and staff.

On the second floor, patrons will find the Art Gallery, which offers a variety of local and national exhibits year round. The Information Center serves as a hub for campus and community information. The Union Theater is host to the School of Music concerts, Broadway shows, dance performances, and many other performing arts events throughout the year. The front lounge of the theatre overlooks the LSU Parade Ground with a beautiful view of oak trees beneath the union's skylights.

Auxiliary Services administrative offices are on the third floor where student job opportunities for positions in the union are available. The Event Management Office processes more than 6,000 reservation requests annually for union facilities and campus grounds.

For information on hours of operation and updates on events and services, visit the union website.

### **Barnes & Noble at LSU**

OFFICE 2 Union Square

TELEPHONE 225-578-5137

WEBSITE www.lsubookcenter.com

*Barnes & Noble at LSU* boasts the largest selections of LSU clothing & gifts, a tech store, meeting space, and café to serve the campus community. The new superstore provides greater space for merchandising and customer seating within the dramatic store design. The store offers an expanded café for nearly one hundred people and an extensive menu to include more fresh food items. The store's textbook reservation process now includes online ordering and three service counters where reservations can be accessed and fulfilled without waiting. The store is conveniently attached to the new parking garage with space for over 700 vehicles. Located at the heart of campus, the garage offers convenient hourly and permitted parking to faculty, staff, students, and visitors to the university. It offers greater convenience for those wishing to visit Barnes & Noble at LSU, The Club at LSU Union Square, the LSU Student Union, and many other facilities located in the center of campus. Learn more about the garage at lsu.edu/garage.

Seating 75 people and providing full audio visual facilities, the store's event room is a venue for meetings, tours, and other campus events with an LSU presentation at no rental cost to campus organizations.

### **Tiger Card Office**

OFFICE	109 LSU Student Union
TELEPHONE	225-578-4300
FAX	225-578-4585
WEBSITE	http://www.lsu.edu/as/tigercard/tigercard/index.php
E-MAIL	tigercard@lsu.edu

The *Tiger Card Office* provides the official LSU identification card, the pre-paid debit system TigerCASH, voter registration services, and passport photos. New students are issued their first ID card at no cost. The ID card is the property of the university and must be retained for each subsequent term of enrollment. The card should be carried at all times and must be presented upon request of any university official. The card is non-transferable.

TigerCASH, a pre-paid debit system, provides a fast, safe, and convenient way to make purchases at various locations on and off campus. TigerCASH is accepted at all dining facilities as well as several merchants off campus. TigerCASH is the only way to copy and print documents on campus. It is accepted at vending machines and all laundry facilities. If your card is lost or stolen, a call to the Tiger Card Office will stop access to your account until you replace your card. With TigerCASH, there is no minimum deposit or semester fee and accounts roll over from semester to semester until the student graduates or resigns. As long as you have a positive balance in your TigerCASH account, you will enjoy convenient purchasing power both on and off campus. TigerCASH deposits may be made through the following options:

- Added as an additional service to the fee bill before completing registration
- Online at our website 24/7: http://www.lsu.edu/as/tigercard/tigercard/index.php
- At our TigerCASH kiosk located in the Student Union and VTS machines located in Middleton library, Patrick F. Taylor Hall, and the Law Center library
- In the Tiger Card Office

Visit the Tiger Card Office website for a detailed listing of locations that accept TigerCASH.

More information is available at the Tiger Card Office, 109 LSU Student Union, or by calling 225-578-4300. By using TigerCASH, you are accepting the Terms of Agreement.

### The Club at LSU Union Square

TELEDIIONE 225 579 2256	ΓΙΟΝ Η	ATION Highland Road	
TELEPHONE 225-578-2356	HONE 2	PHONE 225-578-2356	
FAX 225-578-2244	2	225-578-2244	
WEBSITE www.theclubatlsu.co	TE w	SITE www.theclubatlsu.com	/

*The Club at LSU Union Square* is a fine dining destination, adding an upscale element to the LSU campus and bringing gournet dishes to life not just for LSU but also for the Baton Rouge community.

Students can enjoy a casual lunch each weekday from 11:00 a.m. to 1:30 p.m. Private dining rooms may be reserved during regular club hours for groups of up to 45 guests. The Club is also available for special events outside of regular business hours. The Club at LSU Union Square accepts cash, Paw Points, TigerCASH, American Express, VISA, and MasterCard.

### The UPS Store at LSU

OFFICE	101 LSU Student Union
TELEPHONE	225-578-6576
WEBSITE	http://www.lsu.edu/as/union/ups/index.php
E-MAIL	store6801@theupsstore.com

*The UPS Store at LSU* is the university's commercial mail receiving agency. Mail service is provided to students and faculty members who are LSU box holders or who receive mail through university departments. Operating hours are Monday through Friday, 7:30 a.m. to 5:00 p.m.; Saturday, 10:00 a.m. to 2:00 p.m.

The university does not provide mail service to residence halls. Delivery service to the university-owned apartment complexes on Nicholson Drive and West Roosevelt Street is provided by the Main Post Office, 750 Florida Blvd., Baton Rouge, Louisiana 70802.

Packages intended for LSU box holders sent via FedEx and/or UPS should be addressed to the box holder's name and include the following:

Recipient's Name LSU Box Number 110 LSU Union Square Baton Rouge, LA 70803

### LSU Child Care Center

OFFICE	4001 Gourrier Avenue
TELEPHONE	225-578-7882
FAX	225-578-7562
WEBSITE	http://www.lsu.edu/chse/ecelp/index.php

The *LSU Child Care Center* has been accredited by the National Association for the Education of Young Children (NAEYC) and offers a high quality child care program to students, staff, and faculty. The center exceeds state and national standards that guide developmentally appropriate programs for young children.

Priority for eligibility is given according to the following guidelines:

- Children of students, staff, and faculty of LSU
- Siblings of currently enrolled students
- Children of those individuals with secondary affiliations to LSU (i.e., part-time students, part-time staff, and adjunct faculty, LSU alumni, grandchildren of LSU students, staff, or faculty, individuals working for all the campuses of the university)
- Children of the community, families who have no affiliation to LSU

#### Facility

The LSU Child Care Center is a 15,500 square foot one-story facility with separate spaces for 175 full-time children from different age groups ranging from six weeks old to five years old. The center includes 15 classrooms (based on Louis Torelli's pod design), parent and teacher resource center, multi-purpose room, kitchen, porches off of each

classroom for play during rainy weather, and three fenced playground areas (75 square feet per child) with toys and play equipment for infants, toddlers, and preschoolers.

#### Services

The philosophy of LSU Child Care Center is one of freedom to learn, grow, and make choices through both structured and unstructured activities. All activities are intentionally planned to help children grow and develop physically, socially, emotionally, and cognitively. The learning atmosphere is one of acceptance, mutual respect, pleasure, fairness, consistency, clear limits and expectations, and encouragement. The predictable, organized environment, with caring adults, clear expectations, and appropriate consequences is designed to support the whole child. Teachers are flexible and allow the children freedom to learn at their own pace.

Families are an integral part of the LSU Child Care Center program. Support, encouragement, and assistance are provided to ensure personal and professional success for parents. Communication with the child's family is established to share day-to-day happenings and gain new insights about the family's beliefs and concerns regarding the child's well-being.

## **University Recreation**

OFFICE	102 Student Recreation Complex
TELEPHONE	225-578-8601
FAX	225-578-8489
WEBSITE	www.lsu.edu/urec
E-MAIL	urec@lsu.edu

The LSU Department of University Recreation (UREC) provides exceptional recreation facilities, programs, and services that inspire, educate, and empower students and the LSU community to cultivate active, healthy lives.

Multifaceted recreation and fitness programs are offered including aquatics, informal recreation, fitness and wellness programs, intramural sports, adventure education, sport clubs, and special events.

- University Recreation, located at the corner of South Campus Drive and Minnie Fisk Drive, is roughly a 250,000 square foot recreation facility that houses courts for racquetball, basketball, volleyball, and badminton. Members will also find a 1/3 mile indoor track, a climbing wall, bouldering wall, equipment/bike rental, an inclusive weight/cardio/fitness area, a boxing studio, and an indoor and outdoor pool area. There are also 9 tennis courts and 2 sand volleyball courts that are open for member use just outside of UREC.
- The Adventure Center, located at the East Entrance, rents outdoor gear, offers outdoor trips, and free clinics. The Adventure Center is a great resource for individuals looking to plan their own outdoor adventures.
- The Climbing Area is home to UREC's 35 foot climbing wall and 1,500 square foot bouldering wall. This area is free to use and all equipment needed is free to check out. Learn to belay at the daily belay clinics, or ask one of the trained Wall Assistance to belay you. No experience is required to use the Climbing Area.
- The *UREC Field Complex*, located on the corner of Gourrier Lane and River Road, features eight multipurpose fields and four softball fields that are used for open recreation and Intramural Sports. UREC Sport Clubs practice and compete on these fields, too.
- The *UREC Challenge Course*, located across the street from UREC on South Campus Drive, includes high and low ropes courses with a zip line. This area rented out by student organizations and outside organizations for team building, and it is also available to students during UREC's free open challenge course dates.

- The UREC Outdoor Pool Area, located at the main UREC facility, is comprised of 2 four lane lap pools, a leisure river, water basketball, and lounging areas for students to study outside. There are also 2 sand volleyball courts available to members. Members can also use the indoor pool for lap swimming.
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University Recreation features programming and services in the following areas for all members:

- The *Fitness Program* includes free GroupX classes, Personal Training, and Small Group Training. GroupX classes provide cardiovascular, resistance training, and flexibility activities in a fun and motivating group setting. All classes are led by certified group fitness instructors and are designed for all levels of fitness ability. Personal training provides nationally certified personal trainers who customize fitness programs to help individuals reach personal fitness goals. Sessions are available for individual and partner personal training. Small Group Training provides opportunities for small groups of 4-8 people interested in customized workouts who want to learn new skills and work out to achieve a common goal.
- *Sports Programs* includes intramural sports and club sports. Intramural sports offers team sports and individual events designed specifically for LSU students through the year. Some of these activities are flag football, basketball, softball, volleyball, racquetball, tennis, and dodgeball. Sport clubs provide 22 different student organization opportunities for more competitive competition with other sport clubs throughout the country. Some of the sport clubs include rugby, soccer, equestrian, ultimate Frisbee, lacrosse, hockey, rowing, tennis, and powerlifting. Students are encouraged to start their own Sport Club through UREC.
- The *Adventure Education program* provides an opportunity for the university community to develop an understanding and appreciation for the outdoors. The program features a 35-foot indoor climbing wall and a 1,500-square foot bouldering wall. Climbers of all levels have the opportunity to hone their skills, as well as learn the basics of rock climbing. Adventure Education also features a challenge course, which provides facilitation of team building and leadership activities. Comprised of a low and high course, participants utilize their physical and emotional strengths to reach individual and group goals. Outdoor gear rentals are also offered, including bikes, canoes, kayaks, tents, sleeping bags, and more. Students have the opportunity to sign-up for day trips and overnight trips in and around Louisiana to experience the outdoors and learn new skills.
- The *Aquatics program* offers year-round swim lessons for adults and children. The LSU community has the opportunity to gain CPR/AED certifications by registering for the many certification courses available throughout the year.
- Each year, UREC hosts a variety of *special events* which are designed to serve particular recreational interests and needs.

For additional information and UREC facilities hours of operation, visit www.lsu.edu/urec or contact University Recreation at 578-8601 or urec@lsu.edu.

## **Veteran & Military Student Services**

OFFICE	315 Hatcher Hall
TELEPHONE	225-578-9084
FAX	225-578-4820
WEBSITE	www.lsu.edu/veterans
E-MAIL	veterans@lsu.edu

LSU Veteran & Military Student Services (VMSS) is dedicated to helping veterans, service members, dependents, and survivors succeed in higher education and in seeking employment. VMSS as a unit works to foster a community of support at LSU for veterans and their families.

Eager to assist this highly valued population in achieving personal and professional goals, exploring new learning experiences, and getting involved on campus, the main objectives of VMSS include helping get veteran and military students started on the right path in making the transition to LSU to earn a degree.

Services provided to veterans, service members, dependents, and survivors (VSDS) include:

- Reaching out to the VSDS population throughout Louisiana and the Southeast to inform them of opportunities here at LSU.
- Assisting prospective VSDS students on the admissions process.
- Advising VSDS students on benefits and options.
- Giving campus tours to VSDS students and their families.
- Providing liaison services between VSDS students and university departments.
- Veterans Resource Center: study lounge, group meeting area, and computer lab.

## Women's Center

OFFICE 5 Union Square

TELEPHONE 225-578-1714

WEBSITE http://www.lsu.edu/diversity/womens\_center/

The Women's Center promotes the advancement of women's issues and gender equity through its services, advocacy efforts, and educational programs. Through its programmatic efforts, the center strives to connect women from all walks of life, to foster personal development, and to empower women in leadership.

## **Other Campus Support Functions** Athletic Department

OFFICE	Athletic Administration Building
TELEPHONE	225-578-7997
FAX	225-578-2430
WEBSITE	www.lsusports.net

Athletic facilities include *Tiger Stadium*, with a seating capacity of close to 102,321; four lighted full football practice fields; an indoor football practice facility; a lighted metric track; *Bernie Moore Stadium*, with a state-of-the-art Mondo surface and seating accommodations for 5,680; *Alex Box Stadium*, with seating for close to 11,000; and six lighted tennis courts with an elevated grandstand. A new tennis facility, complete with indoor and outdoor courts, is currently under construction and will be completed in the summer of 2015.

The LSU Natatorium provides an eight-lane Olympic-size indoor pool and diving well. The Pete Maravich Assembly Center, a multipurpose facility, seats 13,472 and is the home court for the men's and women's basketball teams, women's gymnastics, and women's volleyball as well as a practice facility for the men's and women's basketball teams. The recently renovated Carl Maddox Field House provides a 220-meter track facility; a gymnastics practice room; and a large, unobstructed, air-conditioned playing area for basketball, volleyball, indoor tennis, badminton, and other activities. It is available as a competitive indoor track facility and serves as a practice area for track. It is also used for teaching, organized recreational activity, and leisure-time activity for the university community.

Tiger Park, home to the LSU softball team, seats over 1,300 fans in the grandstand, and an additional 1,200 on the outfield berm, and the LSU Soccer Complex accommodates more than 1,500 fans.

LSU has hosted the NCAA Track and Field Championships four times, most recently in May 2002. The NCAA baseball regional tournament has been played 21 times and the Super Regional has been played seven times at Alex Box Stadium. In addition, the basketball NCAA Mideast Regionals, first/second rounds, and SEC tournaments have been played in the Maravich Assembly Center. LSU has also hosted numerous women's basketball NCAA tournaments, Gymnastic NCAA regional tournaments, men's and women's tennis NCAA regional tournaments, softball NCAA regional tournaments, and soccer NCAA regional tournaments.

# **Undergraduate Admissions**

JOSE AVILES	MELANIE THORNTON		
Associate Vice President for Enrollment Management	Information Technology Manager		
DANNY BARROW	EMMETT BROWN		
DAININT DAKKOW			
Director of Admissions	Associate Director		
OFFICE OF ENROLLMENT MANAGEMENT: UNDERGRADUATE ADMISSIONS OFFICE: 1146 Pleasant Hall			
TELEPHONE: 225-578-1175			
FAX: 225-578-4433			
E-MAIL: admissions@lsu.edu			
WEBSITE:	www.lsu.edu		

LSU welcomes applications from all interested students without regard to race, creed, color, religion, sex, national origin, age, mental or physical disability, marital status, sexual orientation, or veteran's status. The university is committed to making fair and timely decisions on applications submitted.

The Office of Enrollment Management actively encourages the referral of prospective freshman and transfer students from alumni, LSU faculty and staff, high school counselors, and community contacts. The office makes available special contact forms for these referrals that provide record of personal contact with prospects.

Applications will be considered by evaluating prospective students' likelihood of success at LSU.

The university operates on a two-semester plan with an additional multi-session summer term and three multi-week intersessions that take place between the spring, summer, and fall semesters. Qualified applicants—except in the School of Social Work, the MBA program, and the College of Veterinary Medicine—may initiate their studies at the beginning of any semester or term.

For detailed information concerning admission to graduate and professional schools, see "The Graduate School" in this catalog.

# **Applying for Admission**

Application information is routinely sent to students who have their scores on the SAT or ACT test sent to the university. LSU's code is 6373 for the SAT and 1590 for the ACT. The application for admission is found at www.lsu.edu.

All applicants are encouraged to apply well before the deadline dates and send transcripts of all college work attempted, if any, as soon as possible. An official transcript from the graduating high school listing coursework from grades 9-12 is required at the time of application and again after high school graduation. Louisiana high schools submit electronic transcripts to the State Department of Education, which LSU can access upon receiving a student's application for admission and again when final grades are issued. In the event that additional information is needed in order to process a student's application, the Office of Undergraduate Admissions reserves the right to request additional transcripts from students who have attended multiple schools.

A nonrefundable *application fee* of \$40 must accompany the application for admission or re-entry. This fee can be submitted using the online payment options or via check or U.S. money order drawn on a U.S. bank and showing the name of the applicant for whom payment is made. The university is not responsible for cash sent by mail. This service fee is used to help cover the cost of processing applications. It is neither refunded if admission is denied, nor is it applied against other costs when a student subsequently enrolls. All former LSU students who have not been enrolled for one or more semesters must submit an application for re-entry.

The application for admission also serves as the application for all freshman scholarship programs and for the Honors College. The **priority deadline** for full consideration for LSU scholarships and for admission to the Honors College is **November 15**. All required information including an official high school transcript, official standardized test scores including at least one with essay (for Honors College admission) must be submitted by that date to ensure full consideration. Scholarship offers are made from December through March. For additional information on the Honors College application process, contact the college at 225-578-8831 or at honors@lsu.edu.

Arrangements for admission, financial aid, and housing are made separately through the Offices of Undergraduate Admissions & Financial Aid and Scholarships and the Office of Residential Life, respectively. Students applying for on-campus housing must first be accepted to LSU. Once students have been accepted, they may apply online for on-campus housing at http://lsu.edu/reslife/. *Filing an application for admission does not entitle an applicant to university housing or financial aid; nor is the filing of a housing application, the assignment to a room, or the award of financial aid a commitment of admission to the university.* For further information, see "Student Resources" and "Financial Aid and Scholarships" in this catalog.

Application deadlines:

- April 15 for fall semester.
- December 1 for the spring semester (October 1 for persons requiring an I-20).
- April 15 for the summer term.
- July 1 for all applicants (final date to submit all credentials).

Applications submitted after the published deadline are considered on an appeal basis only and must be accompanied by a \$55 nonrefundable fee (\$40 application fee and \$15 late fee). Approval of these appeals is not guaranteed.

# **Enrollment Deposit**

LSU requires all admitted, first-time freshman students to indicate their intent to enroll by paying a \$250 deposit. Students intending to enroll for summer or fall semesters must pay the deposit no later than May 1.

# **Immunization Policy**

All students enrolling for the first time at LSU or after an absence of one semester or more must furnish proof of immunization for (or immunity to) measles, meningitis, mumps, rubella, tetanus, diphtheria, and tuberculosis screening *prior to enrollment at the university*. The required proof should be submitted to LSU Student Health Center, Baton Rouge, Louisiana 70803.

# **Certification of Selective Service Compliance**

All persons who are required to register for the federal draft under the federal Military Selective Service Act shall be required to certify on their application for admission that they have registered with the Selective Service. Questions regarding compliance should be directed to the Office of Enrollment Management: Undergraduate Admissions, Pleasant Hall, Baton Rouge, Louisiana 70803.

# Residency

Eligibility for classification as a Louisiana resident is determined by the Office of Enrollment Management: Undergraduate Admissions in accordance with LSU System regulations and is based on evidence provided on the application for admission and related documents. *Please refer to Permanent Memoranda-31 (PM-31) for Residency Policy*. Regulations relate primarily to location of the home and place of employment. A resident student is defined as one who has abandoned all prior domiciles and has been domiciled in the state of Louisiana continuously for non-educational purposes for at least one full year (365 days) immediately preceding the first day of classes of the term for which classification as a resident is sought.

An individual's physical presence within this state for one year must be associated with substantial evidence that such presence was with the intent to maintain a Louisiana domicile. Physical presence within the state solely for educational purposes without substantial evidence of the intent to remain in Louisiana will not be sufficient for classification as a resident, regardless of the length of time within the state.

For additional information concerning the establishment of residency, contact the Office of Enrollment Management: Undergraduate Admissions. Continuing students must contact the Office of the University Registrar for establishment of residency.

# **Educational Requirements and Admission Policy**

### **Admission Standards**

Anyone who wishes to be considered for undergraduate admission to LSU is encouraged to apply.

Admission is based on a review of the high school record and official standardized test scores. The minimum requirements for assured admission are 3.0 Core GPA\* on the 19 units of college-preparatory high school courses\*\* as outlined in the LSU Core and a 1030 Old SAT (Critical Reading and Math)/1100 New SAT (Evidence Based Reading/Writing and Math)/22 Composite ACT †. Students must be eligible to enroll in university-level English and mathematics courses, as evidenced by a minimum ACT English subscore of 18 (a New SAT Writing and Language score of 25 or Old SAT Critical Reading score of 450) and a minimum ACT Math subscore of 19 (a New SAT score of 500 or Old SAT Critical Reading score of 460). Preference for admission to LSU will be given to those students whose credentials indicate the greatest promise of academic success and the greatest potential for contributing to the diverse missions of the university.

Applications will be reviewed against the following basic criteria:

Units**	Academic Score	Old SAT or	New
	GPA*	ACT †	SAT
19	3.00	1033 or 22	1100

\*The GPA is calculated solely on the 19 core units for admission to LSU.

\*\*High school units required for admission are listed in the table below.

†*An applicant's standardized test scores will be verified in cases where there is an increase of six or more points on the ACT or an increase of 220 or more points on the SAT.* 

Students who do not meet the admissions standards outlined above should submit supporting documentation and a letter outlining their qualifications for admission with their initial application. The Admissions Committee will review qualifications and application packages to determine whether additional predictors of success exist as a basis for admission. Other factors, such as choice of degree program, rank in class, scores on required tests (SAT or ACT), credit in advanced placement and honors courses, pattern and quality of courses, grade trends, educational objectives, extracurricular activities, and school recommendations will be considered in the admission process. In addition, special talents, significant life and career experience, or membership in groups underrepresented in the student body will be evaluated and weighed before decisions to offer admission are made.

# **Other Considerations**

Applicants who meet the educational requirements listed in this catalog will be considered for admission. Admission will be denied if requirements listed in this catalog are not met. Admission is not automatically granted when these requirements are met; it may be denied if other factors, in the judgment of university officials, merit denial. Issues such as limited enrollment in certain curricula, timeliness of application, unavailability of certain programs, and other relevant factors may be considered. Furthermore, the university may deny admission, readmission, or continued enrollment to persons whose behavior is disruptive, dangerous, or abusive.

Students may appeal admission decisions to the Faculty Undergraduate Admissions Committee. The purpose of the Admissions Committee review is to evaluate the qualifications of each applicant to determine whether equivalent predictors of success exist and whether to admit the student on this basis.

# **Table of High School Units Required for Admission to LSU**

#### High School Courses (No. of Units)

#### English (4)

English I (1) English II (1)

One Unit From: English III, AP English Language Arts and Composition, IB Literature, IB Language and Literature, or IB Literature and Performance English IV (1)

One Unit From: English IV, AP English Literature and Composition, IB Literature, IB Language and Literature, or IB Literature and Performance (1)

#### Math (4)

Algebra I/Algebra I-Part 2 (1) Algebra II (1) Geometry (1) One Additional Unit of Math from the Following:(1)

- Algebra III;
- Advanced Math Functions and Statistics;
- Advanced Math Pre-Calculus;
- Pre-Calculus;
- IB Math Methods I (Mathematical Studies SL);
- Calculus;
- AP Calculus AB;
- IB Mathematics SL;
- AP Calculus BC;
- Probability and Statistics;
- AP Statistics;
- IB Further Mathematics HL;
- IB Mathematics HL;
- AP Computer Science A

#### Natural Sciences (4) Biology (1) Chemistry (1)

Two Additional Units of Science from the Following:(2)

- Earth Science;
- Environmental Science;

- Physical Science;
- or one of: Physics I or IB Physics I (recommended);
- or one of: Chemistry II, AP Chemistry, or IB Chemistry II;
- or one of: AP Environmental Science or IB Environmental Systems;
- or one of: AP Physics C: Electricity and Magnetism, AP Physics C: Mechanics\*, or IB Physics II;
- or one of: Biology II, AP Biology, or IB Biology II;
- Agriscience II (one unit awarded must have also completed Agriscience I as prerequisite)\*\*
- \*LSU will accept AP Physics I and II as fulfilling the 2 additional unit requirement.

\*\*LSU will accept two units of Agriscience for one unit of Natural Science

#### Social Sciences (4)

#### U.S. History (1)

Civics, Government, AP U.S. Government and Politics: Comparative, or AP U.S. Government and Politics: United States (1) Two Units of Social Science from the Following: (2)

- IB Economics;
- Economics;
- AP Macroeconomics;
- AP Microeconomics;
- History of Religion;
- One of: Western Civilization, European History, or AP European History;
- Or one of: World Geography, AP Human Geography, or IB Geography;
- Or one of: World History, AP World History, or IB World History

#### Foreign Language (2)

Two units in a single language

#### Fine Arts (1)

Fine arts survey or any 1 unit from the following:

- Performance course in Music, Dance, or Theatre;
- Or course in Studio Art, Media Arts (including Photography I, II, and Digital Photography), or Visual Art;
- or Speech III and IV (one unit combined) (1)

### **Direct Admission into Senior College**

Three senior colleges at LSU currently have provisions for applicant screening and admission before beginning study at LSU: Agriculture, Art & Design, and Music & Dramatic Arts. Refer to sections dedicated to the individual college for detailed information on the process for admission to the college or degree program.

### **Student-Athletes**

A freshman who is awarded an athletic grant-in-aid may be admitted if he/she meets the standards found in Bylaw 14.3.1 of the National Collegiate Athletic Association (NCAA). A student-athlete at LSU will be subject to a number of special academic requirements, which are specified in the rules of the Southeastern Conference (SEC) and the NCAA. Student-athletes may also be considered for admission at any time prior to the start of the next academic term.

## Home Schooled, GED, Unaccredited or Unapproved High Schools

Individuals applying for admission to LSU after completing home-schooling, receiving GEDs, or graduating from unaccredited or unapproved high schools will be evaluated on the basis of qualifications outlined above.

### **Early Admission Program**

The *Early Admission Program* permits high school students who have not completed all requirements for a high school diploma to apply for admission to LSU as regular students, provided they fulfill these minimum requirements: 15 units of high school credit, including three units of English; an overall academic average of 3.00 ("B"); and a composite score of 28 ACT/1250 SAT. A limited number of students are selected from those who meet these requirements. Among the considerations in selection are maturity, rank in class, grades, recommendation of the high school principal and others, and additional evidence of scholarly achievement.

### **Concurrent Enrollment Program**

The *Concurrent Enrollment Program* permits exceptional high school seniors to enroll in one or more courses at LSU when space, faculty, and other facilities are available. Students enrolled in this program will be required to attend classes on LSU's campus. Students must have a GPA of 3.00 ("B"), a composite score of 27 ACT/1210 SAT, and be recommended by the high school principal or counselor for enrollment in a specific course or courses. Students must have completed the most advanced courses offered by their school in the academic areas in which they wish to enroll or must be considered qualified for the college course by the principal or counselor. Continuation in this model requires renewed approval each semester. Students are eligible for honors activities and are encouraged to visit the Honors College office. The University College Center for Freshman Year staff are available for advice or information, whether or not the student intends to enroll at LSU as a degree-seeking student.

Students who participate in Concurrent Enrollment Program are responsible for all costs associated with attending LSU. These costs may include, but are not limited to, tuition and fees, a student parking permit, and books. Louisiana law requires immunization against measles, mumps, rubella, and tetanus-diphtheria, as well as a tuberculosis screening, for students who are participating in this program. Students should submit their records to the LSU Student Health Center prior to attending class.

## **College Readiness Program**

The *College Readiness Program* allows eligible high school students to remain in their high school setting and take LSU courses for credit. These courses will be facilitated by teachers at the student's high school who have been certified by LSU to participate in this program. Students must meet the <u>Board of Regents state dual enrollment requirements</u> as well as the specific requirements for each course.

Students who participate in the *College Readiness Program* are responsible for the tuition associated with this model in addition to any required books and technology. No immunization records are required for students participating in the College Readiness Program.

From Spring 2016 forward, transfer coursework earned Fall 2015 and beyond from sending institutions awarding plus/minus grades will be included in the calculation of the student's grade point average. Please refer to "Grading Systems" in the Regulations section for an explanation of LSU's policy and grading scale.

To be admitted to LSU as a first semester freshman, students who enrolled in any dual enrollment courses for college credit must have a minimum GPA of 2.0 on these dual enrollment courses.

### **Campus Tours**

Campus tours are offered at 10 a.m. and 1 p.m., Monday-Friday, excluding university holidays, in the LSU Geaux Center. Tour sessions begin with an overview of the campus, descriptions of programs of study, admission requirements, and information about student aid and scholarships. Special Saturday tours are conducted in the fall and spring semesters. To make a tour reservation, prospective students, parents, or groups are encouraged to contact the Tours Office at 225-578-6908 or tours@lsu.edu.

## **Freshman Orientation and Registration**

Freshman applicants who intend to enroll in the fall must apply by April 15, have SAT or ACT scores on file, and participate in a freshman orientation and registration program. This program includes testing for placement or advanced standing and the opportunity to meet with an advisor to select courses for the coming semester. Program announcements are sent to high schools and to newly admitted students. The deadline for registration in all orientation programs is May 1.

### Admission to a Senior College

Refer to sections dedicated to the individual colleges or schools for details on requirements for admission to a senior college and/or to a degree program.

# **Transfer Students**

Students with previous college or university work from regionally accredited institutions may be considered for admission if they have an overall 2.50 GPA or better on all college work attempted, including a grade of "C" or better in both college-level courses in English and in mathematics (above remedial) that fulfill a general education requirement at the institution where they were taken. Transfer applicants who have earned fewer than 30 hours of college-level work (above remedial) must also meet the requirements for freshman admission.

LSU computes the GPA on all courses taken, including repeated courses, courses with incomplete grades, and those with any other grades, except "W," "WA," "WB," "WC," "WD," "WF," "unsatisfactory," and "no credit." Effective Fall 2015, transfer students submitting an application for enrollment to LSU for Spring 2016 and beyond will be considered under the new plus/minus grading policy. Transfer students submitting an application for enrollment to LSU for Spring 2016 forward, transfer coursework earned Fall 2015 and beyond from sending institutions awarding plus/minus grades will be included in the calculation of the student's grade point average. Please refer to "Grading Systems" in the Regulations section for an explanation of LSU's policy and grading scale. Grade point averages will be computed using the lower grade given by institutions that issue upper/lower grades ("AB," "BC," etc.). Grades of "pass," "credit," and "satisfactory" will be treated alike and will be counted as earned hours, but not in the computation of the GPA. "Fail" will count as hours attempted, but not as hours earned, and will be used to compute the GPA, including any remedial course work. This policy is followed, regardless of the practices of the sending institution, including other LSU System campuses.

All students will be considered for admission based on an evaluation of their likelihood of success at LSU. LSU will consider college GPA, pattern and quality of courses taken, grade trends, educational objectives, special talents, significant life and career experiences, membership in groups underrepresented in the student body, or special circumstances.

A prospective transfer student should submit an admission application and a complete official transcript from each college or university attended, whether or not credit was earned or is desired. Students enrolled in college at the time applications are submitted should have transcripts sent when they apply for admission, to be followed by supplementary records at the close of the semester.

Provisional admission, pending receipt of supplementary records, may be granted when it is impossible to obtain final records prior to scheduled registration dates. This admission will be canceled if the required records are not received by the Office of

Enrollment Management within 30 days of the first day of classes or if it is determined, upon receipt and review of final records, that the applicant is not qualified for admission.

A transfer student who is awarded an athletic grant-in-aid may be admitted if he/she meets the standards found in Bylaw 14.5 of the National Collegiate Athletic Association (NCAA). A student athlete at LSU will be subject to a number of special academic requirements specified in the rules of the Southeastern Conference (SEC) and the NCAA.

### **Transfer Student Orientation and Registration**

Transfer students are required to participate in the Transfer Student Orientation program. This program provides information about student services and resources at LSU and the credit evaluation process. Students meet with an advisor, obtain an ID card and a myLSU account, and schedule classes. Announcements regarding the program are sent to applicants.

## **Re-entering Students**

Re-entering students who have not enrolled in the university for one or more regular semesters must apply for readmission. Students who have attempted 29 or fewer semester hours at other accredited colleges or universities since last attending LSU must meet the senior college scholastic requirements for re-entry; or may be placed on scholastic probation or warning upon reentry. Students who have attempted 30 or more semester hours at other accredited colleges or universities since last attending LSU must have a GPA of at least 2.50 on all college work attempted including a college-level course in English and in mathematics above the remedial level. Students must submit an application and a complete official transcript from each college or university attended since leaving LSU, regardless if whether credit was earned, desired, or transferable.

Re-entry students who do not meet the stated criteria can appeal to be re-admitted if they do not meet the admissions requirements outright or if there are extenuating circumstances that impacted their academic performance.

If a student has not enrolled in any credit-bearing coursework for five or more years, the student may apply for the LSU Second Chance, which permits prior university credit to be carried over and applied to the total hours earned but not used in the computation of the grade point average. These credit hours may be applied towards degree program requirements if approved by the dean of the student's major college. Only students who were admitted to LSU and left without a degree are eligible for the LSU Second Chance. Transfer students and students who have a degree from LSU are not eligible for consideration. Students must meet the residency requirements for the university before graduation. Refer to the "Academic Requirements for Obtaining a Degree" section for specific university residency requirements.

## Acceptance of Credit from Other Collegiate Institutions

The Office of Enrollment Management evaluates credit from other institutions after the student's complete application and all official transcripts from each college and university attended have been received. Credit earned in colleges and universities accredited by regional accrediting associations is generally accepted; however, courses taken at the lower (1000-2000) level cannot be given upper (3000-4000) level credit. *Credit allowed by the Office of Enrollment Management for transfer is, in all cases, subject to review by the student's senior college with regard to its applicability toward a particular degree.* 

For schools not regionally accredited, the university is guided in its decision regarding acceptance of credit by recommendations of selected institutions in the states in which the schools are located. Applicants who are admitted are given an opportunity, usually through advanced-standing examinations, to validate some or all of the credit. Each student's record from a non-accredited college will be considered on the basis of individual merit.

Students who are placed on probation or made ineligible to continue at the institution where they were previously enrolled, based on grades earned in course work recorded on transcripts received after registration, will have the appropriate academic action applied immediately.

Questions relating to the evaluation of credit should be referred to the Office of Enrollment Management: Undergraduate Admissions. Questions relating to the acceptance of credit toward a degree program and the length of time required for completion of degree requirements should be referred to the appropriate senior college or school. For further information, see "Undergraduate Degree Requirements" and "Regulations."

Additionally, the Tiger Transfer Tables on the LSU Transfer website are an online resource where previously evaluated coursework from many institutions are listed. This resource contains both in-state and out-of-state listings of course evaluations.

# **International Applicants**

International admission requirements are applied to all students who have international secondary or post-secondary educational credentials, regardless of country of citizenship, immigrant status, or visa status. All students who have *only* U.S. secondary and post-secondary educational credentials must meet U.S. admission requirements as detailed in previous sections. Applications from students with both U.S. and international educational credentials may be reviewed according to either or both U.S. and international requirements.

Any transcript or documentation issued in a language other than English must be sent with an official English translation. The Office of Undergraduate Admissions within the Office of Enrollment Management is solely responsible for evaluating and determining the equivalencies of international credentials and grading scales.

## **English Proficiency Requirement**

An applicant whose native language is not English and/or who has been educated outside of the U.S. in a country or province where English is not the only official language must demonstrate proof of English proficiency by submitting either a TOEFL, IELTS, or PTE score.

On the TOEFL (Test of English as a Foreign Language), the following minimum scores are required for automatic admission:

- 550 (paper-based exam)
- 79 (Internet-based exam)

Information regarding TOEFL may be obtained by visiting the official website at www.toefl.org.

On the IELTS (International English Language Testing Service), the following minimum score is required for automatic admission:

#### • 6.5

Information about IELTS may be found at www.ielts.org.

On the PTE (Pearson's Test of English), the following minimum score is required for automatic admission:

#### • 59

Information about the PTE may be found at www.pearsonpte.com.

Official TOEFL/IELTS/PTE scores are those reported directly to LSU by the respective testing service at the request of the student.

Applicants may be exempt from the TOEFL/IELTS/PTE requirement if they have completed one of the following:

- a U.S. high school diploma earned, having attended all four years of high school in the U.S.;
- a bachelor's degree earned from an accredited U.S. institution;
- a score of 480 on the English/Critical Reading section of the SAT; or 20 on the English Section of the ACT;
- U.S. transfer requirements (minimum 2.50 overall GPA on 30 or more semester hours above remedial level, including a college-level course in English and in mathematics, or two consecutive English courses, from a regionally accredited U.S. college or university)

Official transcripts or scores are required showing completion of one of the above before a student can be exempted from the TOEFL/IELTS/PTE requirement. The Office of Enrollment Management: Undergraduate Admissions reserves the right to require a satisfactory TOEFL/IELTS/PTE score from any applicant. All international students who are admitted (except for transfer students who have submitted a satisfactory TOEFL/IELTS/PTE score and have received transfer credit from an accredited U.S. institution for the equivalent of LSU's English ENGL 1001 and ENGL 2000 or ENGL 1004 and ENGL 1005 with a grade of "C" or better in each) will be required to take an English placement test prior to registration.

## **First-Time Students**

International students who have never attended a post-secondary education institution will apply as freshmen (first-year students), and must have the equivalent of a U.S. high school diploma with an academic average equivalent to "B" (3.0 or better on the U.S. 4-point grading system). The "academic average" is determined by averaging the grades of secondary school academic courses, excluding nonacademic courses such as physical education, vocational/technical courses, religion, art, music, etc.

Students must submit complete official records for the secondary level of education and are strongly encouraged to submit ACT or SAT scores. Students who have taken advanced-level exams, international baccalaureate higher level exams, or other types of secondary education beyond the 12th year of schooling should submit the official certificates or transcripts and course syllabi for possible advanced placement university credit.

# **International Transfer Students**

### **From International Institutions**

International students who have attended any post-secondary level college, university, or institution must apply as transfer students. LSU requires the equivalent of a 3.0 ("B" average on the U.S. 4-point grading system) for all transferable credit from accredited international institutions. Applicants with less than the equivalent of 30 semester hours of transferable credit (approximately one year of full-time study) must also qualify for freshman admission.

Students must submit official transcripts from each post-secondary institution attended, listing courses taken and grades earned. Also required are the official course descriptions or syllabi to be evaluated for possible credit toward an LSU degree. Transfer credit is not given for English as a second language, non-English native language courses, or vocational/technical courses. For LSU to award transfer credit, the institution must be accredited/recognized by the Ministry of Education or equivalent government agency in that country, and be suitable for university-level credit.

### From U.S. Institutions

International students who have attended a regionally accredited U.S. college or university must meet U.S. transfer requirements: an overall GPA of at least 2.50 and 30 semester hours of transferable credit, including college-level courses in both English and mathematics. Refer to the section on "Transfer Students." If less than 30 hours are earned, freshman requirements must also be met.

### From Both International & U.S. Institutions

If credit is earned from both international and U.S. post-secondary accredited institutions, a 3.0 GPA is required from international institutions, and a 2.5 GPA is required on all U.S. college work. Refer to the sections above. Students who have less than a 3.0 GPA from international institutions may be admitted if: (1) they meet the requirements for transfer from a U.S. accredited college or university (30 semester hours of credit above remedial, 2.50 GPA, math and English courses), *and* (2) have an overall GPA of 2.50 or higher when the U.S. GPA is combined with the international GPA. In this case, courses passed with the equivalent of "C" or higher will be considered for transfer credit from accredited post-secondary international institutions.

## **Application Procedure**

Application deadlines for international students are **April 15** for summer or fall semesters and **October 1** for the spring semester. However, all required documents should be sent at least 120 days before the semester starts to allow for processing time, especially if an I-20 immigration form is needed for the student visa application. Processing time may be extensive for some applications.

The application form should be completed online at www.lsu.edu. The \$40 application fee can be submitted online by credit card, or mailed to the office by check or money order drawn on a U.S. bank. The following materials must be sent to the Office of Enrollment Management: Undergraduate Admissions, Pleasant Hall, Louisiana State University, Baton Rouge, LA 70803:

- complete, official academic records;
- official TOEFL/IELTS/PTE scores; and
- evidence of financial support.

"Official transcript" is defined as an official record prepared by the issuing institution and sealed in the institution's official envelope.

### **Expenses**

International applicants are required to offer proof of the availability of sufficient funds to meet all costs while studying at the *university*. Total expenses, excluding travel to and from Baton Rouge, for the calendar year (12 months) for undergraduate students who are not residents of Louisiana can be found at www.lsu.edu/iso (prospective students). International students residing in Louisiana cannot be considered Louisiana residents unless they are permanent residents of the U.S., among other criteria.

All fees and costs are subject to change.

# **Other Enrollment Opportunities**

### **Dual Enrollment Credit from Outside Institutions**

LSU will accept all dual enrollment credit from accredited four-year institutions, as well as academic-based, college-level credit from two-year institutions. Use the Tiger Transfer Tables to see how credit will transfer to LSU.

Students will need to request the college or university that awarded credit to send an official transcript to the address below. Transcripts can also be sent through eSCRIP-SAFE.

LSU Office of Enrollment Management 1146 Pleasant Hall Baton Rouge, LA 70803

### **Distance Learning Programs**

Admission to college-level Distance Learning Programs (DLP) courses at LSU does not constitute admission to a degree program at the university. However, students may enroll for DLP courses prior to being admitted to the university.

Credit earned in DLP courses may be submitted for evaluation toward an undergraduate degree at LSU or may be transferred to another institution. Students not enrolled at LSU who plan to apply DLP credit toward an LSU degree should submit an official "Application for Admission" form (available from the Office of Enrollment Management: Undergraduate Admissions). In addition to the application form, students should submit official transcripts of all previous academic work.

Admission to DLP courses will be granted to enrolled LSU undergraduate students upon approval of their college deans, which must be indicated on the Distance Learning Programs application form. Students who have been dropped from the university for scholastic, disciplinary, or attendance reasons may be admitted to DLP courses on a noncredit basis only.

A DLP course grade will be posted to the transcript when the course is completed. If a student takes the examination by the last day of the final examination period of a semester/summer term, the grade will be posted to that semester/term. The grade will be used to determine academic action at the conclusion of that semester or summer term. If the examination is taken after that date, the DLP grade will be posted to the next regular semester or summer term. DLP grades will not be posted to intersession.

Students who become ineligible while a DLP course is in progress may complete the course for degree credit. During their period of ineligibility to enroll, students may register on a noncredit basis for DLP courses.

No more than one-fourth of the number of hours required for the bachelor's degree may be taken through Continuing Education by DLP courses. Specific information regarding acceptance of DLP courses toward fulfillment of degree requirements is provided in college and school sections of this catalog. Before scheduling DLP courses, LSU students must obtain approval from their academic deans.

## LSU 25+

LSU 25+ is a special non-degree classification of admission for adult students. Adults who are at least 25 years of age by the end of the calendar year and who have a high school diploma of GED certificate are eligible for admission to LSU through this classification. Although students do not have to submit ACT or SAT scores, complete official transcripts of all prior college work are required. Official transcripts must be mailed directly to LSU from the sending institution.

Students with no prior college coursework are required to take ENGL 1001 and MATH 1021 and earn a grade of "C-" or better before pursuing any other coursework in the program. Students with prior college credit in ENGL 1001 and MATH 1021 or equivalent, in which a "C-" or better in each was earned, can enroll in up to 9 hours per semester.

Students admitted through LSU 25+ are eligible to schedule courses for college credit provided they meet the prerequisites for the courses. Students may schedule a maximum of three to nine credit hours per semester and earned a maximum of 30 semester hours in the program. Students who earn 30 semester hours with a 2.5 GPA may apply for regular admission to the university. Some senior colleges have admissions criteria exceeding those for general admission to the university. Prospective students should consult individual senior colleges for information on additional requirements for specific degree programs. Students who gain regular admission are subject to the requirements of the catalog in effect at the time of their admission as regular students. Students with a quality-point deficit on their college transcript that does not meet the minimum transfer admission requirements after 30 semester hours in the LSU 25+ program will not be admitted.

Students enrolled in this program will be held to the same university scholastic requirements as regularly admitted students including University Scholastic Warning, Probation, and Drop.

LSU 25+ is not designed for international students on F-1 or J-1 visas or students who plan to apply for veteran benefits or financial aid. These students must be enrolled in a degree program.

Courses earned under this program are not eligible for the Academic Renewal Policy.

### **Visiting Students**

Students enrolled in another accredited college or university who are eligible to continue in that institution in the next regular term and who are not on scholastic warning or probation (who are in academic and institutional good-standing) may be admitted as visiting students for one semester or summer term only. These students must submit official transcripts of all college work previously taken. This statement must include the total number of semester or quarter hours of credit previously earned.

Students admitted on a visiting student basis who wish to be considered for regular admission must complete a new application for admission and must supply official transcripts of all college work previously taken. These students will be evaluated on the admission standards in place for transfer students at the time of their application for regular admission. Some senior colleges have admissions criteria exceeding those for general admission to the university. Prospective students should consult individual senior colleges for information on additional requirements for specific degree programs. Visiting students who gain admission to the university as regularly admitted students are subject to the requirements of the catalog in effect at the time of their admission as regular students.

International students are not eligible for this program except for the summer term and, in addition, are required to submit a TOEFL/IELTS/PTE score that meets admission requirements.

## LSU/Baton Rouge Community College Bears to Tigers Programs

The Bears to Tigers Programs are collaborative agreements between BRCC and LSU to provide opportunities for the seamless transfer of BRCC students to LSU upon completion of any one of the following: Bears 2 Tigers Transfer Program, the Louisiana Transfer Degree Program, or Articulated Departmental Agreements. Please refer to www.lsu.edu for more information.

## LSU/Baton Rouge Community College Cross-Enrollment Program

LSU and Baton Rouge Community College (BRCC) students may take courses at the other institution through a cross-enrollment program between the two institutions. This program enables students to take courses not available at the institution where they matriculate. Both full-time and part-time students are eligible to participate. Unless special course fees are assessed, full-time

students pay no additional fees. Part-time students pay tuition and fees based on the total number of hours for which they are registered and any special course fees.

Participants are allowed the same library privileges granted to the student body at the home institution. Students participating in the cross-enrollment program have access to the library at the other institution.

Before enrolling, a student must obtain written approval from the dean of his/her college. Courses taken at BRCC that are approved for college work at LSU are recorded as transfer credit. Interested students can obtain information from the Office of the University Registrar at LSU, the Registrar's Office at Baton Rouge Community College, and the offices of academic deans at either institution. Students should consult the *Registration Schedule of Classes* for additional details.

### Louisiana Transfer Degree

The Louisiana Transfer Associate Degree Program was developed in 2009 to ensure that students completing the 60-hour AALT (Associate of Arts) or ASLT (Associate of Science) can transfer from any state community college to any of the state's four-year universities without losing credit. Graduates with the Louisiana Transfer Associate Degree must still meet any program or college-specific admission or degree requirements for admission to LSU. For additional information, please visit our website at latransferdegree.org/

### **Academic Common Market**

Louisiana participates with 14 other southern states in the Academic Common Market, an interstate agreement for sharing uncommon programs. Residents of these states who are accepted for admission into selected out-of-state programs can enroll on an in-state tuition basis. For additional information, please consult this website.

To enroll as Academic Common Market students, applicants must be accepted for admission into a program to which their state has made arrangements to send its students and obtain certification of residency from the Common Market Coordinator in their home state. Applications for admission should be made directly to the institution offering the program. Additional information about the Academic Common Market and programs available at in-state tuition rates for residents of Louisiana can be obtained from the Office of the University Registrar.

### **Academic Renewal**

Under specified conditions, undergraduate students who have interrupted their college careers for a period of at least five consecutive calendar years may, at the time of application for admission to the university, declare academic renewal. (See "Regulations" in this catalog.)

# **Credit and Placement Program**

## **Departmental Advanced-Standing Exam**

All new freshman students entering LSU may take departmental advanced-standing examinations. Appropriate course placement and academic credit earned are determined by the students' scores. These examinations are administered at no additional charge to participants in the Spring Invitational Program, Freshman Orientation, or Special International Student Testing programs, provided the students complete the tests by the final date to add courses for credit during their first term of enrollment at LSU.

Credit earned through placement tests and advanced-standing examinations taken while students are not enrolled in the university (all LSU campuses) will be awarded in the next semester for which they are enrolled for resident credit, provided they register at LSU within two years.

SAT-Scholastic Assessment Test and ACT (formerly the American College Test)

• SAT and/or ACT scores are used in granting advanced-standing credit in freshman English and mathematics placement. LSU does not award credit for SAT subject tests

# **SAT/ACT Scores**

Only scores sent directly to the university from the SAT or ACT Testing Centers are considered official. It is essential that we have your Scholastic Aptitude Test (SAT) or American College Test (ACT) on file to enroll you in the proper freshman English and math classes. LSU will use the <u>best</u> math and English ACT scores to award credit, and the <u>best</u> composite score for admission purposes. For all English placement, if you have taken either of these tests more than once, we strongly recommend that you have all of the scores sent to LSU since we will use the best English ACT score and the best composite score to award credit, and your best scores may be on more than one test.

If you indicated that you wanted your scores sent to LSU when you took the SAT or ACT exam, then your official scores are on file at LSU. If you did not have the testing center send your scores directly to LSU, request that your official scores be sent immediately. To request your scores be sent:

	SAT	ACT
Telephone:	609-771-7600	319-337-1313
LSU Code:	6373	1590
Website:		

### **Math Placement**

 The quantitative score on the SAT (QSAT) or the math ACT (MACT) is used for placement into MATH 1021 College Algebra (3), MATH 1022 Plane Trigonometry (3), MATH 1023 College Algebra and Trigonometry (5), MATH 1029 Introduction to Contemporary Mathematics (3), MATH 1100 The Nature of Mathematics (3), and MATH 1431 Calculus with Business and Economic Applications (3). These scores can also grant credit for MATH 1021. See the MACT/QSAT placement and credit chart below for details.

Placement into MATH 1021, 1022, 1023, 1029, 1100, and 1431 by MACT or QSAT Scores						
MACT Score	Old QSAT Score	QSAT Score	Course Credited	Placement		
25 or higher	570 or higher	590 or higher	MATH 1021*	MATH 1022, MATH 1029, MATH 1100, or MATH 1431		
23-24	540-569	570-589		MATH 1021, MATH 1023, MATH 1029, or MATH 1100		
19-22	460-539	500-569		MATH 1021, MATH 1029, or MATH 1100		

\*The MACT or QSAT score must be no more than 24 months old on the student's first day of classes at LSU in order for the student to receive credit in MATH 1021 based on the MACT or QSAT score. Credit in MATH 1021 is a prerequisite for registration in MATH 1022 and MATH 1431.

A student's appropriate scores on the LSU Department of Mathematics' algebra and trigonometry placement/credit tests can result in placement in a higher-level math course than the MACT or QSAT placement but cannot result in placement lower than the MACT or QSAT placement. Low scores on the LSU Math Placement Tests cannot nullify any credits that a student has earned from other exams.

Students can improve upon their placement into MATH 1021, MATH 1022, MATH 1023, MATH 1029, MATH 1100, or MATH 1431 indicated by the above MACT/QSAT score, by taking the LSU Math Credit Exam for MATH 1021 College Algebra (3) or MATH 1022 Plane Trigonometry (3). See the table below for details.

3. ALEKS (Assessment and Learning in Knowledge Spaces) Calculus Readiness Exam and Learning Module for entry into MATH 1550/MATH 1551

An appropriate score on the ALEKS Calculus Readiness Exam and its associated "learning module," is the one and only prerequisite to MATH 1550 Analytic Geometry and Calculus I (5) and MATH 1551 HONORS: Analytic Geometry and Calculus I (5).

For an ALEKS score to qualify for admitting a student into MATH 1550 or MATH 1551, the ALEKS exam must have been taken through the website of the LSU Department of Mathematics; www.math.lsu.edu.

A student's final ALEKS score must be no more than six months old on the first day of classes in MATH 1550 or MATH 1551. See www.math.lsu.edu for exact dates of achieving an acceptable ALEKS score for each semester as well as appropriate scores for each of these courses.

Students whose majors require MATH 1550 are advised to take it early in their undergraduate careers. Entering students planning on a fall enrollment may complete ALEKS as early as March (in time for freshman or transfer orientation) but not prior to completing (or almost completing) their prerequisite courses on geometry, algebra, and trigonometry.

Credit for (as opposed to placement into) MATH 1550 may be earned via the AP, CLEP, or IB programs (described below), via the LSU MATH 1550 Credit Exam or via transfer credit from another college. No ALEKS score is required for such credit.

4. The AP program can grant credit in MATH 1431, MATH 1550, or MATH 1552 Analytic Geometry and Calculus II (4).

Scores on the CLEP exams can grant credit in MATH 1021, MATH 1022, and MATH 1550.

The IB program can grant credit in MATH 1021, MATH 1431, and MATH 1550.

5. Retroactive Credit for MATH 1021 and MATH 1022

A student receiving a grade of "C" or better in MATH 1431, MATH 1550, or MATH 1551 will receive retroactive credit for MATH 1021.

A student receiving a grade of "C" or better in MATH 1552, MATH 1553, or MATH 1554 will receive retroactive credit in MATH 1022.

6. MATH 1023

MATH 1023 is recommended only for students who plan to take MATH 1550 or MATH 1551, MATH 1023 is a fivehour course, and this course alone does not fulfill the six-hour General Education Analytical Reasoning requirement. A student may not earn credit in both MATH 1021 and MATH 1023, or in MATH 1022 and MATH 1023, since the MATH 1023 course duplicates the content in both MATH 1021 and MATH 1022.

7. MATH 1029 and MATH 1100

MATH 1029 and MATH 1100 are intended primarily for liberal arts and some social sciences majors.

8. MATH 1431

MATH 1431 does not require knowledge of trigonometry. By contrast, MATH 1550 and MATH 1551 do. 9. MACT score below 20

Students who have a score of 18 or lower on the MACT are generally not admitted to LSU. Students with a score of 19 may be admitted to LSU but are generally not placed into MATH 1021. Instead, they may take the remedial course, MATH 0092 (preparation for College Mathematics II). MATH 0092 is no longer offered at LSU. Students needing remedial algebra must either take MATH 0092 at Baton Rouge Community College, Southern University, or LSU's Distance Learning Programs (DLP). Alternatively, they may sign a Math Waiver (obtained from UCFY) to take MATH 1021 regardless of the warning that success therein is unlikely. A student with an MACT of 19 can be successful in MATH 1021 but only if the student has a very strong work ethic and invests considerably more than the minimum required time in the 1021 Math Lab.

Placement	Placement into and Credit for MATH 1021, 1022, 1029, 1100, and 1431 by LSU Algebra & Trigonometry Test Scores						
Algebra	Trigonometry	Courses Credited	Placement				
16	13	MATH 1021 and MATH 1022	MATH 1431, MATH 1100, or MATH 1029				
16	0	MATH 1021	MATH 1431, MATH 1022, MATH 1100, or MATH 1029				
13	0		MATH 1023, MATH 1021, MATH 1100, or MATH 1029				
6	0		MATH 1021, MATH 1100, or MATH 1029				
~	0		Off-campus Intermediate Algebra or MATH 1029 or MATH 1100				

### **English Placement**

Your SAT or ACT score will determine your initial placement in either ENGL 1001 or ENGL 2000 or will grant you an exemption from the first-year writing requirement. If you have taken either of these tests more than once, we strongly recommend that you have all of the scores sent to LSU since we will use the best English ACT score and the best composite score to award credit, and your best scores may be on more than one test

The chart below illustrates initial English placement.

English Placement by ACT or SAT Scores					
ACT English Score	ACT English Score + Composite*	Old SAT Critical Reading Score	New SAT Writing and Language Score	Course Credited	Placement
32 or higher	65 minimum (or 5 on the part of the CEEB exam)	720 or higher	38 or higher	ENGL 1001, ENGL 2000	Exempt from English Composition
26 or higher	53 minimum	590-719	33-37	ENGL 1001	ENGL 2000 to be taken sophomore year
18 or higher	38 minimum	450-589	25-32		ENGL 1001
* For example, if you have an English ACT score of 20 and a composite ACT score of 21, you will be placed in ENGL 1001					

### **AP, CLEP, and IB Programs**

AP—*The Advanced-Placement Program of the College Board* • About one-fourth of American secondary schools currently participate in the Advanced-Placement Program of the College Board. Each May, AP examinations are administered (by the College Board) to students who have participated in the program. Advanced-Placement credit will be granted in appropriate subjects to freshmen who earn a grade of 3, 4, or 5 on Advanced-Placement subject examinations, as specified in the chart provided. Departmental recommendations are subject to change. Contact the Office of Enrollment Management: Undergraduate Admissions for current recommendations.

For information about general program data and policies, contact either Advanced-Placement Program, The College Board, 45 Columbia Ave., New York, NY 10023-6917; or the Office of Enrollment Management: Undergraduate Admissions, 1146 Pleasant Hall, LSU, Baton Rouge, Louisiana 70803.

Students who earn AP Exam scores of 3 or above are generally considered to be qualified to receive college credit and/or placement into advanced courses due to the fact that their AP Exam scores are equivalent to a college course score of "middle C" or above. The awarding of credit and placement is determined by each department. The AP Exams are administered by the College Board.

Examination	Minimum Score	Courses	Hours Credi
Art History	3	ARTH 1440 or 1441	3
Art History	4	ARTH 1440 and 1441	6
Biology	3	BIOL 1201 and 1202	6
Biology	4	BIOL 1201, 1202, 1208 and 1209	8
Chemistry	4	CHEM 1201 and 1202	6
Chemistry	5	CHEM 1421, 1422, and 1212	8
Computer Science A	5	CSC 1253 or 1350	3
Economics: Microeconomics	4	ECON 2000	3
Economics: Macroeconomics	4	ECON 2010	3
English Language & Composition	3	ENGL 1001	3
English Language & Composition	4	ENGL 1001	3
English Language & Composition	5	ENGL 1001 and 2000	6
English Literature	4	ENGL 2025 or 2027 or 2029 or 2123	3
Environmental Science	3	ENVS 1126	3
Statistics	4	EXST 2201 or ISDS 2000	4
French Language	3	FREN 1001 and 1002	8
French Language	4	FREN 1001, 1002 and 2101	11
French Language	5	FREN 1001, 1002, 2101 and 2102	14

Geography	3	GEOG 1001 or 1003	3
Geography, Human	4	GEOG 1001 and 1003	6
German Language	3	GERM 1101 and 1102	8
	5		0
Government, U.S. Politics	3	POLI 2051	3
Government, Politics (Comparative)	3	POLI 2053	3
History, American	3	HIST 2055 or 2057	3
History, American	4	HIST 2055 and 2057	6
History, European	3	HIST 1003	3
History, European	4	HIST 1003 and 2022	6
History, World	3	HIST 1007	3
Latin	3	LATN 1001 and 2051	8
Latin	4	LATN 1001, 2051 and 2053	11
Latin	5	LATN 1001, 2051, 2053, and 2065 or 2066	14
Aathematics: Calculus AB 3		MATH 1431	3
Mathematics: Calculus AB	4	MATH 1550	5
Mathematics: Calculus BC 3		MATH 1550	5
Mathematics: Calculus BC 4		MATH 1550 and 1552	9
Music Theory 4		MUS 1799	3
Physics C: Mechanics 4		PHYS 2110	3
Physics C: Electricity & Magnetism 4		PHYS 2113	3
Psychology	3	PSYC 2000	3
Spanish	3	SPAN 1101 and 1102	8
Spanish	4	SPAN 1101, 1102, and 2101	11
Spanish	5	SPAN 1101, 1102, 2101, and 2102	14
Spanish Literature		Same as above	
Studio Art: 2-D Design	3	ART 1008 or 1011	3
Studio Art: 3-D Design	3	ART 1009 or 1012	3
Studio Art: 5-D Design			

CLEP—Subject Examinations of the *College Level Examination Program* • Policies governing minimum required scores and the acceptance of credit are established by the appropriate academic departments. LSU allows credit on CLEP subject examinations in 16 areas. (Credit is not allowed for CLEP general examinations.) Departmental course credit recommendations for satisfactory scores on CLEP subject examinations are included in the table provided. Department recommendations are subject to change. Contact the Office of Enrollment Management: Undergraduate Admissions for current recommendations and information on general program data and policies.

The College-Level Examination Program® (CLEP) gives students the opportunity to receive college credit by earning qualifying scores in the subjects listed below. CLEP Exams are administered by the College Board.

CLEP EXAMINATIONS					
CLEP Subject Examination	Minimum Score	LSU Equivalent	Sem. Hrs.		
American Government	58	POLI 2051	3		
American History I	50	HIST 2055	3		
American History II	50	HIST 2057	3		
Calculus with Elementary Functions	56	MATH 1550	5		
College Algebra	50	MATH 1021	3		
College Mathematics	50	MATH 1029	3		
College Composition	50	ENGL 1001	3		
College French	40 48 54 61	FREN 1001 FREN 1001, 1002 FREN 1001, 1002, 2101 FREN 1001, 1002, 2101, 2102	4 8 11 14		
College German	40 48 54 61	GERM 1101 GERM 1101, 1102 GERM 1101, 1102, 2101 GERM 1101, 1102, 2101, 2102	4 8 11 14		
College Spanish	40 48 54 61	SPAN 1101 SPAN 1101 and 1102 SPAN 1101, 1102, 2101 SPAN 1101, 1102, 2101, and 2102	4 8 11 14		
Human Growth and Development	50	PSYC 2076	3		

Introduction to Educational Psychology	50	PSYC 2060	3
Introductory Psychology	50	PSYC 2000	3
Introductory Sociology	46	SOCL 2001	3
Macroeconomics	50	ECON 2010	3
Microeconomics	50	ECON 2000	3

IB—*International Baccalaureate* • A number of American and secondary schools abroad participate in the International Baccalaureate Diploma Program. This is a comprehensive two-year curriculum leading to examinations and a possible IB diploma if the requirements of the full program are satisfied.

Students are encouraged to submit their IB diploma record or examination results with their application to the university for evaluation. Advanced placement credit may be granted in appropriate subjects to freshmen who earn a grade of 4 or better on the IB higher level examinations. Credit is not allowed for IB standard level examinations. Policies governing minimum required scores and the acceptance of credit of IB examinations are established by the National Council on the Evaluation of Foreign Credentials and by the appropriate academic departments. Current departmental recommendations may be obtained by contacting the Office of Enrollment Management: Undergraduate Admissions.

The International Baccalaureate® (IB) Diploma Programme is a challenging two-year curriculum, which leads to the awarding of college credit as listed below:

INTERNATIONAL BACCALAUREATE ADVANCED PLACEMENT CREDIT*			
Subject	Score	Credit	
Biology	4 5	BIOL 1201 (3), 1208 (1) BIOL 1201 (3), 1202 (3), 1208 (1), BIOL 1209 (1)	
Chemistry	4 5	CHEM 1201 (3) CHEM 1201 (3), 1202 (3), 1212 (2)	
Computer Science	5	CSC 1253 (3) or 1350 (3)	
Economics	5	ECON 2030 (3)	
English Literature (A1)	4 5	ENGL 2025 (3) ENGL 2025 (3), 2027 (3)	
Geography	4	GEOG 1001 (3), GEOG 1003 (3)	
Global Politics	4	POLI 2057 (3)	
History – Africa and the Middle East	4	HIST 2198 (3)	
History – Americas	4	HIST 2198 (3)	
History – Asia and Oceania	4	HIST 2198 (3)	
History – Europe	4	HIST 2196 (3)	
Language A1: English	4	ENGL 2025 (3)	

	5	ENGL 2025 (3), 2027 (3)
Mathematics	4 5	MATH 1021 (3), 1431 (3) MATH 1021 (3), 1550 (5)
Music	4 5	MUS 1751 (3) MUS 1751 (3), 1799 (3)
Psychology	4	PSYC 2000 (3)
Theatre	4 5	THTR 1020 (3) THTR 1020 (3)
Visual Arts	4 5	ART 1*** (3) ART 1*** (6)
Other HL's	4	3 credit hours by title (1***)

\*Advanced Placement credit given for Higher Level (HL) exams only, with grades of 4 or higher.

## **Financial Aid and Scholarships**

AMY MARIX	JESSICA OTT		
Director	Associate Director		
RACHEL STANSBURY	AIMEE THIBODEAUX		
Manager	Assistant Director		
OFFICE OF ENROLLMENT MANAGEMENT: FINANCIAL AID AND SCHOLARSHIPS			
OFFICE: 1146 Pleasant Hall			
TELEPHONE: 225-578-3103			
FAX: 225-578-6300			
E-MAIL: financialaid@lsu.edu			
scholarships@lsu.edu			
WEBSITE: www.lsu.edu/financialaid			

LSU awards scholarships in the form of cash awards, full tuition and nonresident fee exemptions, room and board, and employment opportunities to students who meet certain academic qualifications.

The scholarships listed for entering freshmen are awarded mainly on the basis of standardized test scores (ACT/SAT) and high school record.

In addition to the scholarship programs, the Office of Enrollment Management administers a number of federally funded and state funded financial aid programs. The total amount of funding disbursed annually through these programs is approximately \$200 million.

## LSU Scholarships Available to Entering Freshmen

Most awards listed below are valid for one year of undergraduate study. Each may be renewed annually as long as the recipient meets academic requirements. The maximum term of the award is four years or until the recipient receives an undergraduate degree, whichever occurs first.

Louisiana residents selected for the scholarships listed below will likely qualify for tuition assistance and cash stipends through the state's TOPS program. See the section titled "Louisiana's Tuition Opportunity Program for Students, (TOPS)."

### **Application Procedure**

The LSU "Application for Undergraduate Admissions" is an automatic application for entering freshmen scholarships. The online application must be postmarked along with an official high school transcript, standardized test scores, and all other required information to the Office of Enrollment Management, Pleasant Hall, LSU, Baton Rouge, Louisiana 70803-2802. The priority date for full consideration for LSU's scholarship programs is **November 15**.

Notification of scholarship recipients normally begins in December. Students are considered based on a six-semester transcript once they have been admitted to the university. To be guaranteed consideration, standardized test scores must be received by **November 15.** 

# **Entering Freshman Nonresident Scholarship Programs**

### **University Scholarship Programs**

Stamps Scholarship

**Criteria:** Stamps Scholars will be chosen from the pool of students admitted to the Roger Hadfield Ogden Honors College. Top candidates will be invited to compete for the Stamps Scholarships. To view the Roger Hadfield Ogden Honors College admission requirements, visit www.honors.lsu.edu.

**Award:** The Stamps Scholarship program is the top scholarship opportunity available at LSU. Scholarship recipients will receive full cost of attendance for four years, as well as a potential \$14,000 for enrichment experiences.

Stamps Scholars will be directed to resources that will help cultivate each scholar's intellectual distinction, initiative, and commitment to service, leadership, global knowledge, and career exploration. For more information on the Stamps Family Charitable Foundation, visit www.stampsfoundation.org.

#### President's Alumni Scholars

**Criteria:** The top 10 entering freshmen not selected as Stamps Leadership Scholars (including both residents and nonresidents) will be awarded this scholarship. To be considered, a student must have a minimum ACT of 33 or critical reading and math SAT of 1440 with a computed, six-semester high school GPA of at least a 3.5. To be considered for this award, a student must have an official ACT or SAT writing score on file with LSU and meet the November 15 priority consideration deadline.

**Award:** Nonresident students receive \$2,000 per year, tuition exemption, nonresident fee exemption, on-campus room and board scholarship, a one-time \$2,000 study abroad stipend and the opportunity to earn up to an additional \$1,550 per year by participating in the President's Future Leaders in Research Program.

The President's Future Leaders in Research Program offers a unique opportunity for students to conduct research early in their college career. Students are partnered with a faculty member in the field of their choice to work side-by-side in a research setting learning what a career in their chosen field may be like. As a member of the research team, students receive guidance and support to expand their knowledge and skill. Students participating in this program can work up to 20 hours per week to earn up to \$1,550 per year. The student is paid an hourly wage and paychecks are sent bi-weekly.

#### LSU Alumni Association's Global Leaders

**Criteria:** The top 50 entering freshmen (including both residents and nonresidents not selected as President's Alumni Scholars or Stamps Leadership Scholars) based on ACT/SAT scores and a computed, six-semester high school GPA of at least a 3.0. To be considered for this award, a student must have an official ACT or SAT writing score on file with LSU and meet the November 15 priority consideration deadline.

**Award:** A one-time \$2,000 study abroad stipend and the opportunity to earn up to an additional \$1,550 per year by participating in the President's Future Leaders in Research Program. This award is in addition to the cash scholarship awarded to the student through the Flagship Scholars Award, LSU Academic Scholars Award, or the Tiger Excellence Scholars Award.

The President's Future Leaders in Research Program offers a unique opportunity for students to conduct research early in their college career. Students are partnered with a faculty member in the field of their choice to work side-by-side in a research setting learning what a career in their chosen field may be like. As a member of the research team, students receive guidance and support to expand their knowledge and skill. Students participating in this program can work up to 20 hours per week to earn up to \$1,550 per year. The student is paid an hourly wage and paychecks are sent bi-weekly.

#### LSU Distinguished Freshman Award

Criteria: College-sponsored National Merit Finalist who indicates LSU as their first-choice institution

Award: \$2,000 per year and the opportunity to earn up to \$1,550 per year by participating in the President's Future Leaders in Research Program. This scholarship is in addition to the student's merit scholarship offer through President's Alumni Scholars, LSU Alumni Association's Global Leaders, Flagship Scholars Award, LSU Academic Scholars Award, or the Tiger Excellence Scholars Award.

The President's Future Leaders in Research Program offers a unique opportunity for students to conduct research early in their college career. Students are partnered with a faculty member in the field of their choice to work side-by-side in a research setting learning what a career in their chosen field may be like. As a member of the research team, students receive guidance and support to expand their knowledge and skill. Students participating in this program can work up to 20 hours per week to earn up to \$1,550 per year. The student is paid an hourly wage and paychecks are sent bi-weekly.

#### Flagship Scholars Award

**Criteria:** ACT score of 33 to 36 or a critical reading and math SAT score of 1440 to 1600 on the Old SAT, or minimum total score of 1490 on the New SAT AND a 3.0 cumulative computed, six semester high school GPA (not selected as a President's Alumni Scholar)

Award: \$20,500 per year plus the opportunity to earn up to an additional \$1550 by participating in the President's Student Aide Program

The President's Student Aide Program provides an opportunity for students to work in one of our many departments. Students participating in this program can work up to 20 hours per week to earn up to \$1550 per year. The student is paid an hourly wage and paychecks are sent bi-weekly.

#### LSU Academic Scholars Award

**Criteria:** ACT score of 30 to 32 or a critical reading and math SAT score of 1330 to 1430 on the Old SAT, or minimum total score of 1390 on the New SAT AND a 3.0 cumulative computed, six semester high school GPA

Award: \$15,500 per year plus the opportunity to earn up to an additional \$1,550 by participating in the President's Student Aide Program

The President's Student Aide Program provides an opportunity for students to work in one of our many departments. Students participating in this program can work up to 20 hours per week to earn up to \$1,550 per year. The student is paid an hourly wage and paychecks are sent bi-weekly.

#### Tiger Alumni Legacy Scholarship

**Criteria:** <u>Non-Louisiana resident and a parent who graduated from the LSU Flagship Campus</u>. A parent can be a biological parent, adoptive parent, or stepparent The LSU Flagship Campus comprises LSU A&M, the LSU Paul M. Hebert Law Center, and the LSU School of Veterinary Medicine

Award: Recipients will receive a 10% non-resident fee exemption for eight semesters, which is currently valued at \$1,668 per year.

#### Tiger Excellence Scholars Award

**Criteria:** ACT score of 28 to 29 or a critical reading and math SAT score of 1250 to 1320 on the Old SAT, or a minimum total score of 1250 on the New SAT AND a 3.0 cumulative computed, six semester high school GPA

#### Award: \$7,600 per year

#### Tiger Nation Scholarship

**Criteria:** ACT score of 26 composite minimum or a critical reading and math SAT score of 1170 on the Old SAT, or a minimum total score of 1240 on the New SAT AND a 3.0 computed, six-semester high school GPA

Award: Recipients will receive a 20% non-resident fee exemption for eight semesters, which is currently valued at \$3,335 per year.

The Tiger Nation Scholarship is available to non-Louisiana residents (except Texas).

#### Texas Tigers Scholarship

**Criteria:** ACT score of 26 composite minimum or a critical reading and math SAT score of 1170 on the Old SAT, or a minimum total score of 1240 on the New SAT AND a 3.0 computed, six-semester high school GPA

Award: Recipients will receive a 20% non-resident fee exemption for eight semesters, which is currently valued at \$3,335 per year.

The Texas Tigers Scholarship is available to Texas residents.

## **Scholarships for Louisiana Students**

### **The Pelican Promise Award**

LSU is committed to institutional access and affordability for students of all socioeconomic levels. The Pelican Promise Award program is designed to attract and support Louisiana students who are economically disadvantaged and academically qualified.

To qualify, students must be eligible for admission to the university, must be eligible for a Federal Pell Grant, and must have a family income equal to or lesser than 150 percent of the poverty level.

Eligibility for the Pelican Promise will be determined once the student has completed the Free Application for Federal Student Aid (FAFSA) and applied for all federal, state, and LSU resources. Please note that a FAFSA must be completed each year to renew eligibility for the Pelican Promise Award. This award exempts students from the payment of tuition and the registration fee.

## **Entering Freshman Resident Scholarship Programs**

### **University Scholarship Programs**

Stamps Scholarship

**Criteria:** Stamps Scholarship will be chosen from the pool of students admitted to the Roger Hadfield Ogden Honors College. Top candidates will be invited to compete for the Stamps Scholarships. To view the Roger Hadfield Ogden Honors College admission requirements, visit www.honors.lsu.edu.

**Award:** The Stamps Scholarship program is the top scholarship opportunity available at LSU. Scholarship recipients will receive full cost of attendance for four years, as well as a potential \$14,000 for enrichment experiences.

Stamps Scholars will be directed to resources that will help cultivate each scholar's intellectual distinction, initiative, and commitment to service, leadership, global knowledge, and career exploration. For more information on the Stamps Family Charitable Foundation, visit www.stampsfoundation.org.

#### President's Alumni Scholars

**Criteria:** The top 10 entering freshmen not selected as Stamps Leadership Scholars (including both residents and nonresidents) will be awarded this scholarship. To be considered, a student must have a minimum ACT of 33 or critical reading and math SAT of 1440 with a computed, six-semester high school GPA of at least a 3.5. To be considered for this award, a student must have an official ACT or SAT writing score on file with LSU and meet the November 15 priority consideration deadline.

Award: Resident students receive a tuition exemption, on-campus room and board scholarship, a one-time \$2,000 study abroad stipend and the opportunity to earn up to an additional \$1,550 per year by participating in the President's Future Leaders in Research Program.

The President's Future Leaders in Research Program offers a unique opportunity for students to conduct research early in their college career. Students are partnered with a faculty member in the field of their choice to work side-by-side in a research setting learning what a career in their chosen field may be like. As a member of the research team, students receive guidance and support to expand their knowledge and skill. Students participating in this program can work up to 20 hours per week to earn up to \$1,550 per year. The student is paid an hourly wage and paychecks are sent bi-weekly.

#### LSU Alumni Association's Global Leaders

**Criteria:** This award will be given to the top 50 entering freshmen (including both residents and nonresidents not selected as President's Alumni Scholars or Stamps Leadership Scholars) based on ACT/SAT scores and a computed, six-semester high school GPA of at least a 3.0. To be considered for this award, a student must have an official ACT or SAT writing score on file with LSU.

Award: A one-time \$2,000 study abroad stipend and the opportunity to earn up to an additional \$1,550 per year by participating in the President's Future Leaders in Research Program. This award is in addition to the cash scholarship awarded to the student through the Flagship Scholars Award, LSU Academic Scholars Award, or the Tiger Excellence Scholars Award and meet the November 15 priority consideration deadline.

The President's Future Leaders in Research Program offers a unique opportunity for students to conduct research early in their college career. Students are partnered with a faculty member in the field of their choice to work side-by-side in a research setting learning what a career in their chosen field may be like. As a member of the research team, students receive guidance and support to expand their knowledge and skill. Students participating in this program can work up to 20 hours per week to earn up to \$1,550 per year. The student is paid an hourly wage and paychecks are sent bi-weekly.

#### LSU Distinguished Freshman Award

Criteria: College-sponsored National Merit Finalist who indicates LSU as their first-choice institution

Award: \$2,000 per year and the opportunity to earn up to \$1,550 per year by participating in the President's Future Leaders in Research Program. This scholarship is in addition to the student's merit scholarship offer through President's Alumni Scholars, LSU Alumni Association's Global Leaders, Flagship Scholars Award, LSU Academic Scholars Award, or the Tiger Excellence Scholars Award.

The President's Future Leaders in Research Program offers a unique opportunity for students to conduct research early in their college career. Students are partnered with a faculty member in the field of their choice to work side-by-side in a research setting learning what a career in their chosen field may be like. As a member of the research team, students receive guidance and support to expand their knowledge and skill. Students participating in this program can work up to 20 hours per week to earn up to \$1,550 per year. The student is paid an hourly wage and paychecks are sent bi-weekly.

#### Flagship Scholars Award

**Criteria:** ACT score of 33 to 36 or a critical reading and math SAT score of 1440 to 1600 on the Old SAT, or minimum total score of 1490 on the New SAT AND a 3.0 cumulative computed, six semester high school GPA (not selected as a President's Alumni Scholar)

Award: \$2,500 per year plus the opportunity to earn up to an additional \$1,550 by participating in the President's Student Aide Program

The President's Student Aide Program provides an opportunity for students to work in one of our many departments. Students participating in this program can work up to 20 hours per week to earn up to \$1,550 per year. The student is paid an hourly wage and paychecks are sent bi-weekly.

#### LSU Academic Scholars Award

**Criteria:** ACT score of 30 to 32 or a critical reading and math SAT score of 1330 to 1430 AND a 3.0 cumulative computed, six semester high school GPA

Award: \$2,000 per year plus the opportunity to earn up to an additional \$1550 by participating in the President's Student Aide Program

The President's Student Aide Program provides an opportunity for students to work in one of our many departments. Students participating in this program can work up to 20 hours per week to earn up to \$1,550 per year. The student is paid an hourly wage and paychecks are sent bi-weekly.

#### Tiger Excellence Scholars Award

**Criteria:** ACT score of 28 to 29 or a critical reading and math SAT score of 1250 to 1320 on the Old SAT, or a minimum total score of 1250 on the New SAT AND a 3.0 cumulative computed, six semester high school GPA

#### Award: \$1,500 per year

#### Louisiana Tiger Legacy Excellence Scholarship

**Criteria:** Louisiana resident, a parent who graduated from or is currently employed the LSU Flagship Campus, an ACT score of 28, or a critical reading and math SAT score of 1250 on the Old SAT, or a minimum total score of 1310 on the New SAT. A parent can be a biological parent, adoptive parent, or stepparent The LSU Flagship Campus comprises LSU A&M, the LSU Paul M. Hebert Law Center, and the LSU School of Veterinary Medicine.

#### Award: \$1,000 per year

#### Louisiana Tiger Legacy Superior Scholarship

**Criteria:** Louisiana resident, a parent who graduated from or is currently employed the LSU Flagship Campus, an ACT score of 26, or a critical reading and math SAT score of 1170 on the Old SAT, or a minimum total score of 1240 on the New SAT. A parent can be a biological parent, adoptive parent, or stepparent The LSU Flagship Campus comprises LSU A&M, the LSU Paul M. Hebert Law Center, and the LSU School of Veterinary Medicine.

#### Award: \$750 per year

#### Louisiana Tiger Legacy Merit Scholarship

**Criteria:** Louisiana resident, a parent who graduated from or is currently employed the LSU Flagship Campus, an ACT score of 24, or a critical reading and math SAT score of 1090 on the Old SAT, or a minimum total score of 1160 on the New SAT. A parent can be a biological parent, adoptive parent, or stepparent The LSU Flagship Campus comprises LSU A&M, the LSU Paul M. Hebert Law Center, and the LSU School of Veterinary Medicine.

#### Award: \$500 per year

#### **Transfer Student Scholarships**

Entering transfer students with an overall GPA of 3.5 and a minimum of 30 college-level transferable credit hours can qualify for our Tiger Transfer Scholarships.

#### Louisiana Tiger Legacy Excellence Scholarship

**Criteria:** Louisiana resident, a parent who graduated from or is currently employed the LSU Flagship Campus, a transfer GPA of 3.5 and 30 college-level transferable credit hours. A parent can be a biological parent, adoptive parent, or stepparent The LSU Flagship Campus comprises LSU A&M, the LSU Paul M. Hebert Law Center, and the LSU School of Veterinary Medicine.

#### Award: \$1,000 per year

#### Louisiana Tiger Legacy Superior Scholarship

**Criteria:** Louisiana resident, a parent who graduated from or is currently employed the LSU Flagship Campus, a transfer GPA of 3.0 and 30 college-level transferable credit hours. A parent can be a biological parent, adoptive parent, or stepparent The LSU Flagship Campus comprises LSU A&M, the LSU Paul M. Hebert Law Center, and the LSU School of Veterinary Medicine.

Award: \$750 per year

LSU/LCTCS Honors Promise Transfer Scholarship

Criteria: Louisiana resident, a transfer GPA of 3.25, and an associate degree from an LCTCS institution

Award: Recipients will receive up to \$3,000 per year for up to six semesters.

#### TOPS - Louisiana's Tuition Opportunity Program for Students

Louisiana residents meeting certain eligibility requirements will qualify for tuition assistance and, in some cases, cash stipends through this state-funded program. TOPS has three components: (1) the *Opportunity Award* provides tuition assistance for four years; (2) the *Performance Award* provides tuition assistance and a \$400 per year cash stipend for four years; and (3) the *Honors Award* provides tuition assistance and a cash stipend of \$800 per year for four years. Each of these components has certain ACT score and GPA requirements; in addition, all TOPS awards require 17.5 units of specified high school course work.

To apply for TOPS awards, the Free Application for Federal Student Aid (FAFSA), which corresponds to the year in which the student plans to enroll, must be submitted by the deadline published in the FAFSA.

More detailed information on these programs may be obtained from the Louisiana Office of Student Financial Assistance, Scholarship Division, P.O. Box 91202, Baton Rouge, Louisiana 70821-9202 or by visiting their website at www.osfa.state.la.us.

#### Tiger Alumni Legacy Scholarship

**Criteria:** <u>Non-Louisiana resident and a parent who graduated from the LSU Flagship Campus.</u> A parent can be a biological parent, adoptive parent, or stepparent The LSU Flagship Campus comprises LSU A&M, the LSU Paul M. Hebert Law Center, and the LSU School of Veterinary Medicine

Award: Recipients will receive a 10% non-resident fee exemption for eight semesters, which is currently valued at \$1,668 per year.

#### Tiger Nation Scholarship

Criteria: a transfer GPA of 3.5 and 30 college-level transferable credit hours

Award: Recipients will receive a 20% non-resident fee exemption for up to six semesters, which is currently valued at \$3,335 per year.

The Tiger Nation Scholarship is available to non-Louisiana residents (except Texas).

## **Other LSU Scholarships and Awards**

There are two types of scholarships listed below—those restricted to students according to their major or college and those that are open to all students regardless of their major or college. Most scholarships are restricted to full-time students.

All other applications, when required, may be obtained from the department or college listed in the description of the scholarship.

The description of each scholarship follows the same format: title; number given, and annual amount of each, e.g., "(2:\$300)" means that two scholarships are awarded per year at \$300 each; any criteria or restrictions; and the group that determines which students will receive the scholarship. The following abbreviations are used in the scholarship descriptions:

FR	freshman
SO	sophomore
JR	junior
SR	senior
UG	undergraduate
GR	graduate student
LA	Louisiana
yr	year
GPA	grade point average
FA&S Cmte	Financial Aid & Scholarships Committee
EBR	East Baton Rouge Parish

## Scholarships and Awards Restricted to a Particular Field of Study

Students interested in applying for the following scholarships and awards should check with the individual colleges for up-to-date information concerning amounts and requirements. *Those scholarships and awards marked with one asterisk (\*) are funded through the LSU Foundation. Those marked with two asterisks (\*\*) are sponsored by the LSU Alumni Association.* 

## **College of Agriculture**

The College of Agriculture offers many scholarships for both incoming and continuing students. Awards vary each year depending on the availability of funds. Awards are selected on an academic year basis, with one half disbursed in the fall and the second half in the spring, provided retention criteria are met. Information on the application process will be sent directly to students. Applications will open for prospective students once they are admitted and on January 1<sup>st</sup> for continuing students. Applications for incoming students are due February 1<sup>st</sup> and for continuing students the deadline is March 1<sup>st</sup>. Students submit one application to be considered for all College of Agriculture scholarships.

64 Parish Strong Scholarship Agriculture Development Council Scholarship Air Force ROTC Scholarship Army ROTC Scholarship E. M. Barham Memorial Scholarship BASF Endowed Scholarship Lee Berwick Working Student Scholarship Jules P. Bordelon Memorial Scholarship Fund Ralph Brown Endowed Scholarship Capital Bank & Trust Agricultural Scholarship Dean Mason C. Carter Scholarship C. W. Causey Scholarship **Century Club Scholarship Charles Stewart Churchill Memorial Scholarship** College of Agriculture Alumni Association Scholarship Horace J. Davis Scholarship Mary Owens Day Memorial Scholarship **Deep South Equipment Dealers Association Scholarship First South Farm Credit** Sibyl and Joseph Dorè Memorial Scholarship **George Fasting Scholarship** Murphy J. Foster Scholarship Joseph W. Freeland International Agriculture Scholarship J. B. Frye, Jr. Scholarship S. W. "Buck" Gladden, Jr. Memorial Scholarship James D. Graugnard—Louisiana Farm Bureau Scholarship Greater Baton Rouge State Fair/George Simoneaux Scholarship Iberia Parish Farm Bureau Federation Scholarship **Dean Kenneth Koonce Scholarship** Lloyd Lauden Scholarship Dean J. G. Lee, Jr. Scholarship Louisiana Cattle Women-Emily Smith Fairchild Memorial Scholarship Louisiana County Agricultural Agents Association—4-H Scholarship Louisiana Division of American Society of Sugar Cane Technologists Scholarship **Emile A. Maier Endowed Scholarship** Blanche E. and Dennis V. McClosky Scholarship David B. Means Memorial Endowed Scholarship John Walker Melton Scholarship Laurie S. and Helen N. Mobley Scholarship Bernell E. Newman Endowed Scholarship **Brodie Pugh Scholarship** Shelby Robert Family Endowed Memorial Scholarship Staplcotn Scholarship **Tiger Athletic Foundation Undergraduate Scholarship** K.C. Toups Memorial Scholarship James W. and Edna F. Trott Scholarship James W. Trott, Jr. Scholarship Zen-Noh Grain Mac Kasaoka Memorial Scholarship **Charlotte Robertson Honorary Scholarship** Joseph L. and Estell W. Smilie Memorial Scholarship Louisiana Division - American Society of Sugar Cane Technologists Merit Scholarship **GEAPS Guld South Scholarship** Alice and William Calloway Scholarship **Daniel Ivy Dupree Scholarship** Kent James Greater Baton Rouge State Fair Award Laura Lynn Smith Memorial Scholarship **Travis Walker Scholarship** Kenny S. & Dana E. Brown Scholarship

## **College of Art & Design**

AIA/AAF Scholarships (varies) Awarded on a competitive basis to fourth- or fifth-yr. students in arch. by the Nat. Am. Inst. of Architects.

Alpha Rho Chi Medal (1) Graduating student in arch. with outstanding service to school and/or profession.

Henry Adams American Institute of Architects Certificate (1:UG; 1:GRAD) Graduating student in arch. with second highest GPA; awarded by Am. Inst. of Architects through Sch. of Arch.

Henry Adams American Institute of Architects Medal (1:UG; 1:GRAD) Graduating student in arch. with highest GPA; awarded by Am. Inst. of Architects through the Sch. of Arch.

American Society of Landscape Architecture (1:\$500) Based on scholarship and financial need; awarded by Sch. of Land. Arch.

William R. Brockway, FAIA Scholarship Fund (varies:varies) FT UG in Arch.; preference given to students who have demonstrated interest in the field of historical conservation; awarded by the School of Architecture.

Charles Craig International Travel Award in Memory of Joseph Aurbach (1:\$5,000) Outstanding student in the School of Art.

Certificate of Merit, American Society of Landscape Architects (1) Outstanding SR in land. arch.; awarded by Sch. of Land. Arch.

Miriam Garic Barranger Scholarship (1:\$1,000 annually as funds become available) UG in ceramics; awarded by Sch. of Art.

**Baton Rouge Art League Award (1:\$250)** JR/SR/GR in art with minimum 3.00 GPA; awarded by Sch. of Art. Atwell E. Champion Scholarship (1:\$500) UG in land. arch.; 2.50 or better GPA; awarded by Sch. of Land. Arch. Dean's Medals (4) Outstanding graduate in arch., art, interior des.; and land. arch.; evaluation of portfolio and potential in professional field; nominated by faculty; awarded by dean.

\*Terry Devine Memorial Scholarship (1:varies) Fourth- or fifth-yr. student in arch.; awarded by Sch. of Arch.

\*Caroline Durieux Scholarship (varies) UG in art; awarded by Sch. of Art.

**J. Kenneth Edmiston Memorial Scholarship (2:\$500)** JR, SR concentrating in ceramics, graphic design, painting/ drawing, printmaking, or sculpture; 3.00 GPA; apply each semester; awarded by Sch. of Art.

**I. Vincent Guaccero Memorial Scholarship (1:varies)** SR interior design major with demonstrated outstanding design capability; awarded by Dept. of Interior Design.

\*Harvey Scholarship (2:tuition) Fifth-yr. student in arch. and land. arch.; awarded by Sch. of Arch. and Sch. of Land. Arch. based on academic performance and financial need.

William Hornsey Scholarship (1:\$350) Based on scholarship and financial need; awarded by the Sch. of Land. Arch. Norman L. Koonce, FAIA Scholarship in Architecture (varies:varies) FT UG in Arch.; awarded by the School of Architecture.

Landscape Architecture Endowment (varies:varies) Based on scholarship and financial need; awarded by the Sch. of Land. Arch.

\*Alice Hovey Littlefield Memorial Scholarship (1:varies) Female UG in land. arch.; awarded by Sch. of Land. Arch. Louisiana Garden Club Federation, Inc., Scholarship (varies:varies) Outstanding student in land. arch.; LA resident; based on scholarship and financial need; awarded by Sch. of Land. Arch.

**Outstanding Undergraduate Painter (2:varies)** Awarded by painting faculty based on portfolio, School of Art. **Phi Kappa Phi Outstanding Senior Award (1:Certif.)** SR with highest GPA; selected by dean, Col. of A & D. **\*Helen Adams Reich Memorial Scholarship (6:\$500)** Preference to nonresident UG in land arch : awarded by S

\*Helen Adams Reich Memorial Scholarship (6:\$500) Preference to nonresident UG in land. arch.; awarded by Sch. of Land. Arch.

**Dixon Smith Educational Scholarship** (1:varies) SR interior des. major; evaluation of portfolio; awarded by Dept. of Interior Design.

**Torre Scholarship in Landscape Architecture (1:varies)** Awarded to outstanding UG in design through the Sch. of Land. Arch.

Scott Gerard Verrett Scholarship (1:varies) JR interior des. major; GPA of 3.00 or better; true financial need; awarded by Dept. of Interior Design.

**Undergraduate Student Interior Design Scholarship (1:varies)** Awarded to UG interior design major; evaluation of portfolio, scholastic excellence and financial need; awarded by Dept. of Interior Design.

**Torres Scholarship in Interior Design (1:varies)** Awarded to UG Interior Design major; evaluation of portfolio, scholastic excellence and financial need; awarded by Dept. of Interior Design.

**M. Dorothy Fletcher Field Studies Fund (varies:varies)** Awarded to UG Interior Design major; field study proposal and financial need; awarded by Dept. of Interior Design.

# E. J. Ourso College of Business

**Victoria Archangel Memorial Scholarship** UG business major; 3.0 GPA; financial need; active in student organizations as well as campus and community service; awarded by Ourso Col. of Bus. Scholarship Committee.

**Paul and Ellen Arst Scholarship** JR/SR in finance or risk insurance; financial need; 3.00 GPA; awarded by Ourso Col. of Bus. Scholarship Committee.

Association of Government Accountants UG or GR student interested in governmental accounting; 2.50 GPA; must be U.S. citizen and LA resident; awarded by Dept. of Accounting Scholarship Committee.

B.R. Board of Realtor-Ingalls, Frances R. Scholarship JR/SR interested in real estate; LA resident.

Lonnie H. Bearry Scholarship Outstanding SO/JR in Acct.; awarded by Dept. of Accounting Scholarship Committee. Hannis T. Bourgeois LLP JR/SR in ACCT.; outstanding character, leadership, extracurricular activities, and academic

achievement; awarded by Dept. of Accounting Scholarship Committee. Capital Bank & Trust Embree K. Easterly Scholarship Outstanding JR/SR in FIN with desire to enter finance or banking

upon graduation; student must be a LA resident with financial need; 3.00 GPA; awarded by Ourso Col. of Bus. Adm. Scholarship Committee.

**Capital Bank & Trust Hamrick Holloway Finance Scholarship** JR/SR in FIN or Banking; student must be a LA resident with financial need; 3.00 GPA; awarded by Ourso Col. of Bus. Scholarship Committee.

**L.A. Champagne Memorial Scholarship** SO in ACCT.; 2.70 GPA; financial need; awarded by Ourso Col. of Bus. Scholarship Committee.

**Chevron ISDS Scholarships** UG student majoring in ISDS; 3.0 GPA; US citizen; awarded by ISDS scholarship committee. **John L. Davidson Scholarship** Fund JR/SR with 3.00 GPA; any major; awarded by Ourso Col. of Bus. Scholarship Committee. **Deloitte** SO/JR in ACCT.; student must have outstanding character, leadership, and academic qualifications; awarded by Dept. of Accounting Scholarship Committee.

Diversity and Inclusion Scholarship Undergraduate business major from an underrepresented group; 2.5 GPA.

**Tommy Doiron & Jimmy Webb Memorial** SO with less than 60 credit hours; 2.50 GPA minimum; financial need; awarded by Ourso Col. of Bus. Scholarship Committee.

**Clarence Dunn Accounting Dept. Recognition Awards** ACCT majors deserving of special recognition by accounting faculty; awarded by Dept. of Accounting Scholarship Committee.

**Ernst & Young LLP** Outstanding JR in ACCT with career interest in public acct.; 3.50 GPA; awarded by Dept. of Accounting Scholarship Committee.

**ExxonMobil Scholarship** Outstanding GR student in ACCT intending to make college teaching a career. Awarded by Dept. of Accounting Scholarship Committee.

**Faulk & Winkler LLC** Outstanding JR/SR accounting student; awarded by Dept. of Accounting Scholarship Committee. **David H. Garland Memorial Scholarship** UG student displaying leadership, academic ability, and citizenship; LA resident; 3.00 GPA; awarded by Ourso Col. of Bus. Scholarship Committee.

Lewis Gottlieb Memorial Scholarship Second- year GR student candidate for MS in finance or MBA with concentration in finance; awarded by Ourso Col. of Bus. Scholarship Committee.

Michael J. Gricus, Sr. Excellence in Finance Scholarship UG finance major in the E. J. Ourso College of Business Brenda and Gregory Hamer, Sr. Endowed Scholarship UG or GR in the E. J. Ourso College of Business; priority will be given to students who are graduates of Louisiana public schools; financial need shall be a consideration; awarded by Ourso Col. of Bus. Scholarship Committee.

**Paul and Theresa Hendershot Scholarship** SR in MKT; scholastic achievement; financial need; 3.00 GPA; awarded by Ourso Col. of Bus. Scholarship Committee.

Mack H. Hornbeak Scholarship UG or GR student in Gen. Bus. or banking and finance; financial need; 3.00 GPA; awarded by Ourso Col. of Bus. Scholarship Committee.

Josh and Florence Kantrow Memorial Scholarship Student with strong academic performance and gpa; financial need; awarded by Ourso Col. of Bus. Scholarship Committee.

**L. Jarrod Kimble Memorial Scholarship** UG student majoring in ISDS; 3.0 GPA; ability to work in the field and participation in extracurricular activities; awarded by the ISDS Department Scholarship Committee.

**Allison R. Kolb Memorial Award** Outstanding JR/SR in banking or finance; financial need; 3.00 GPA; awarded by Ourso Col. of Bus. Scholarship Committee.

KPMG LLP Outstanding JR in accounting; awarded by Dept. of Accounting Scholarship Committee.

**H.J. "Monday" Lowe Endowed Scholarship** Accounting student involved in campus activities; awarded by the Dept. of Accounting Scholarship Committee.

Marathon Oil Corporation UG accounting students interested in the oil and gas industry; awarded by Dept. of Accounting Scholarship Committee.

Marathon Petroleum Scholarship Outstanding SO/JR in accounting; awarded by Dept. of Accounting Scholarship Committee Russell Lobdell Memorial Scholarship SO with outstanding academic qualifications, financial need, and demonstrated qualities of leadership; 3.00 GPA; graduate of a Baton Rouge high school; awarded by Ourso Col. of Bus. Scholarship Committee. Roger McDaniel Leadership Award UG in Internal Auditing demonstrating outstanding leadership; 3.00 GPA; awarded by LSU Center for Internal Audit.

Herbert Huey McElveen M.B.A. Scholarship MBA student. Awarded by Ourso Col. of Bus. Scholarship Committee.

**Justine Mendelsohn Fund** UG student with financial need; preference given to female student; 2.50 GPA; awarded by Ourso Col. of Bus. Scholarship Committee.

Hans Metcalf Memorial Award UG in Economics; financial need may be a consideration; awarded by Ourso Col. of Bus. Scholarship Committee.

Lloyd F. Morrison Scholarship GR teaching assistant who has excelled in teaching; awarded by Dept. of Accounting Scholarship Committee.

**Glen H. Olds, Jr. Endowed Scholarship** MBA with concentration in ISDS or MS in ISDS; 3.00 GPA; awarded by Ourso Col. of Bus. Scholarship Committee.

**Glen H. Olds, Jr. Scholarship** Full-time GR in ISDS; 3.00 GPA; awarded by the Ourso Col. of Bus. Scholarship Committee. **Ourso Family Scholarships** Outstanding first year MBA student; UG GPA 3.20 or better; GMAT 600 or better.

**James H. Owen Scholarship** UG ACCT student who promises to attain the high personal and professional standards of Dr. Owen; awarded by Dept. of Accounting Scholarship Committee.

**Charlotte Murray Pace Memorial MBA Scholarship** Second year Flores M.B.A. student; preference given to female; from Mississippi and /or attended Millsaps College, and/or participated in soccer at the collegiate level, and/or majored in accounting; awarded by the Ourso College of Bus. Scholarship Committee.

**Thomas Bryan Phillips Endowed Scholarship** Accounting undergraduate with a 3.0 or higher GPA enrolled in the E. J. Ourso College of Business; awarded by Dept. of Accounting Scholarship Committee.

**Reymond Holmes Pope Scholarship** JR in Business; 3.00 GPA; LA resident; awarded by Ourso College of Bus. Scholarship Committee.

**Postlethwaite & Netterville Audit Award** JR in accounting interested in auditing; awarded by the Dept. of Accounting Scholarship Committee.

**Postlethwaite & Netterville Tax Award** JR in ACCT interested in taxation; awarded by Dept. of Accounting Scholarship Committee.

William "Bill" Clayton Potter Sr. Endowed Scholarship Fund Outstanding accounting major; awarded by the Dept. of Accounting Scholarship Committee.

**Flo Bigby Price Memorial Scholarship** UG SO, JR, or SR; LA resident; graduate of a Bossier Parish high school; awarded by E.J. Ourso Col. of Bus. Scholarship Committee.

**Pricewaterhouse Coopers Outstanding** one SO and one JR in ACCT; awarded by Dept. of Accounting Scholarship Committee. **R. T. Reckling Memorial Scholarship** JR majoring in ITF; leadership and citizenship qualities; LA resident with financial need; 3.00 GPA; awarded by Ourso Col. of Bus. Scholarship Committee.

**Redhawk Capital Corporation Scholarship** in Business UG in ACCT with a 3.00 GPA and financial need; active in university and/or community service; awarded by the Ourso Col. of Bus. Scholarship Committee.

Colleen Reed Opportunity Scholarship UG in LSUIAPS exemplifying "progress through sharing;" awarded by LSU Center for Internal Audit.

Dan B. Rinks Endowed Scholarship JR/SR in ISDS or ISDS-MIS; 2.50 GPA; awarded by Ourso Col. of Bus. Scholarship Committee.

**Richard Roy Memorial Scholarship** Outstanding UG student in Internal Auditing Program; 3.00 GPA; leadership; profession in Internal Auditing; awarded by LSU Center for Internal Audit.

**The Sawyer Family Scholarship** UG; 2.8 GPA; credit in two entrepreneurial courses; membership in Delta Sigma Pi business fraternity; awarded by Ourso Col. of Bus. Scholarship Committee.

**Russell L. Sledge Scholarship** Outstanding MBA student in the Ourso Col. of Bus. with financial need; awarded by Ourso Col. of Bus. Scholarship Committee.

**SSA Consultants, Inc. Scholarship** SO/JR/SR with 3.00 GPA and financial need; any major in the Ourso Col. of Bus.; awarded by Ourso Col. of Bus. Scholarship Committee.

Kitty B. Strain Scholarship JR/SR female student in the Ourso Col. of Bus.; 3.0 GPA.

**Lynn Ferguson Sweat Memorial Scholarship** UG business major intending to pursue graduate studies; preference given to minority students; financial need may be a consideration; awarded by E.J. Ourso Col. of Bus. Scholarship Committee.

**Texas Tiger Tournament Endowed Scholarship** Outstanding accounting major; awarded by Dept. of Accounting Scholarship Committee.

**E. J. Thomas - R. P. Courtney Leadership Scholarship** JR; GPA of 3.00 or better; leadership responsibility in high school and citizenship; from one of the following high schools: Holy Savior Catholic H.S., Alexandria; Redemptorist H.S., B.R.; or Catholic H.S., B.R.

**Grant Thornton Scholarship** Outstanding UG accounting student; awarded by Dept. of Accounting Scholarship Committee. **Tiger Athletic Foundation Award** UG student highly qualified based on leadership and scholarship; awarded by Ourso Col. of Bus. Scholarship Committee.

Leonel E. Tutison and Helen L. Tustison Scholarship in the E. J. Ourso College of Business Graduate of East Baton Rouge Parish high school; 3.5 high school GPA; 3.5 college GPA.

**Travis Varner Memorial Non-graduating** JR/SR majoring in ISDS; 3.00 GPA; member of AITP; leadership; citizenship; financial need; awarded by Ourso Col. of Bus. Scholarship Committee.

**W. Leroy Ward, Sr. Memorial Scholarship** UG in finance or banking; min 3.00 GPA; financial need; graduate of EBR parish high school; resident of EBR parish or surrounding parishes.

**J. C. Wilfert Scholarship in Business** UG in business with a strong desire to attend LSU and intends to achieve major accomplishments after graduation.

# **College of the Coast & Environment**

**Candace Chun Memorial Scholarship (usually 1; varies)** Awarded each fall semester on a competitive basis to incoming freshmen; declared CES major; full-time student status; awarded by the College of the Coast & Environment.

Andrew "Drew" Wilbert Memorial Scholarship (usually 1; varies) Overall 3.25 GPA; full-time status; sophomore, junior or senior CES major; awarded during spring semester on a competitive basis; awarded by the College of the Coast & Environment. Bert Turner Memorial Scholarship (usually 1; varies) Overall 2.50 GPA; full-time status; sophomore, junior or senior CES major; awarded during spring semester on a competitive basis; awarded by the College of the Coast & Environment.

**CC&E Undergraduate Scholarship (usually 1; varies)** Overall 3.00 GPA; full-time status; CES major; awarded during the spring semester on a competitive basis; awarded by the College of the Coast & Environment.

**Coypu Endowed Scholarship (usually 1; varies)** Overall 3.00 GPA; full-time status; sophomore, junior or senior CES major; declaration of intention toultimately seek a position "such as environmental pollution technician, restoration planner, air/water quality specialist, environmental manager, environmental policy-maker, or other position that responds directly or immediately to current societal and environmental needs of coastal regions;" Awarded each summer on a competitive basis; awarded by the College of the Coast & Environment.

**Tiger Athletic Foundation Award (1; varies)** Overall 3.30 GPA; full-time status; senior CES major; awarded during fall semester on a competitive basis; awarded by the College of the Coast & Environment's Coastal Environmental Science Executive Committee.

# **College of Engineering**

Note: All scholarships/awards are based on availability of funds.

Denotes one-time, non-renewable scholarships/awards.

### Awards

American Institute of Chemists Award (1:certificate) UG in chem. engr. with outstanding leadership ability, character, and scholarship.

BP Undergraduate Award FT UG in Dept. of Elect. Engr.; 3.00 GPA; financial need.

CEE Enrichment Award FT GR admitted or enrolled in the graduate program in the Dept. of Civil Engr.; 3.00 GPA.

**C. Carter Brown Book Award (varies:varies)** FT; JR/SR in civil engr.; 3.00 GPA; financial need; awarded by Dept. of Civil & Envr. Engr.

**Cajun Constructors Award for Diversity in Construction Management Full-time** UG as a declared constr. Mgmt. major; preference given to minority students; financial need considered; awarded by CMIE dept.

**Chemical Engineering Junior Award (varies:\$100)** JR in chem. engr. with highest GPA at end of yr.; awarded by Dept. of Chem. Engr.

ME Enrichment Award FT Doctoral student enrolled in Dept. of Mech. Engr.; 3.00 GPA.

Michael A. Clause Memorial Fund Award (1:varies) UG in civil engr.

**\*Donald W. Clayton Engineering Excellence Awards-Undergraduate (varies:varies)** FT; UG; completed at least one year residence in Col of Engr.; U.S. citizen or perm. resident; good academic record and desire to enroll in engr. graduate program at LSU.

**\*Donald W. Clayton Engineering Excellence Awards-Graduate (varies:varies)** FT; GR; U.S. citizen or perm. resident; PhD track; desire to enter teaching profession in engr.; demonstrate scholarly accomplishment (publications/presentations at professional meetings)

**Dow Outstanding Junior Award (1:\$1,000)** JR in chem. engr.; scholarship, activities, professionalism; awarded by Dept. of Chem. Engr.

Gautreaux Award (1:\$100) FT; UG; JR with highest GPA; awarded by Dept. of Chem. Engr.

Paul M. Horton Award (1:\$500) Outstanding LSU chem. engr. graduate who enters LSU Graduate School.

Edward Mclaughlin Medal for Excellence (varies:varies/medal) FT; UG; Awarded to the graduating engineering student with the highest overall GPA for his/her college work. Ties permitted.

L. Frank Moore Award FT UG in Dept. of Constr. Mngmt.; 3.00 GPA; financial need.

Plant Design Project Award (varies:varies) FT; UG; participants of Plant Design Project Contest; awarded by Dept. of Chem. Engr.

Norbert Rillieux Award (1:\$250 and Plaque) Outstanding African American graduate in engr.

### **Fellowships**

**William A. Brookshire Distinguished Fellowship in Chemical Engineering (varies:varies)** FT; GR; doctoral student in ChE, 3.5 GPA, U.S. citizen, preference to students who have demonstrated scholarship accomplishment, strong leadership skills, shown integrity and exemplary character, indicated a career preference for the private sector in the process industries, and would be a good ambassador for the College and the state of Louisiana.

Gordon and Mary Cain Fellowship (varies:varies) FT; GR in chem. engr.; overall 3.30 GPA; 3.50 GPA in chem. engr.; financial need; awarded by Dept. of Chem. Engr.

**Chevron Engineering Post-Doctoral and Graduate Student Fellowship Fund (varies:varies)** FT; GR; doctoral and postdoctoral fellowships in Engineering awarded to students with substantiated research interest in the oil and gas industry; second preference to students from under- represented groups, inc. African Americans, Hispanic Americans, and women.

**College of Engineering Endowed Alumni Fellowship** (varies:varies) FT; GR in engr.; American citizen; 3.50 GPA; one yr. award; financial need; awarded by Col. of Engr.

**Stanley M. & Hilma R. Cothren Graduate Fellowship in Engineering Excellence (varies:varies)** FT; PhD; US citizen; 3.5 GPA; civil & environmental engr.

Vincent Forte Graduate Fellowship (1:\$2000) GR in engr.

Mark and Carolyn Campbell Guidry Doctoral Fellowship (1:\$22,500) FT; GR; doctoral student admitted to or enrolled in ECE.

George A. Daniels Graduate Fellowship in Engineering FT GR in Dept. of Chem. Engr.

**IBM Grad Fellowship Scholar (1-2: varies)** FT; GR; eligibility requires BS degree in engineering or equivalent, enrolled in graduate program in the College of Engineering or in the MBA Program in the College of Business Administration; minorities and/or women will be given preference.

ECE Doctoral Student Support Fund FT Doctoral student in Dept. of Elect. or Comp. Engr.; 3.00 GPA.

Flagship Fellowship Fund (varies; varies) FT GR; PhD track engineering graduate program; 3.50 GPA.

IGERT Fellowship (varies:\$12,500) GR in engr.

George A. Khoury, Jr. Graduate Fellowship in Engineering Excellence (1:\$30,000) FT; GR; doctoral student admitted to or enrolled in PETE.

James Lewis Electrical Engineering Fellowship (varies:varies) GR in elect. engr.

James R. Lewis Grad Study Fund in EE (varies:varies) FT; GR; for master's or doctoral student, ECE major, 3.0 GPA. Nextgenc3 Graduate Fellowship FT GR in Mech. Engr. program; 3.00 GPA.

Jayanti and Suresh Rai Fellowship (varies:varies) FT: GR in elec, or comp. engr.; preference to females of East Indian origin in elec. or comp. engr.

**Charles E. Severance Endowed Fellowship** Full-time GR in biol. and agr. engr; US citizen; financial need and 4-H exp. preferred; awarded by Dept. of Biol & Agr. Engr.

**Jimmy Stone Graduate Fellowship in Engineering Excellence (1:\$30,000)** FT; GR; doctoral student in PETE, 3.0 GPA, U.S. citizen or permanent resident.

## **Freshman Scholarships**

**ExxonMobil Diversity in Engineering Scholarship (varies:varies)** FT; UG in engr.; 3.00 GPA; academic ability; top 25 percent of high school class; 26 ACT; awarded by Col. of Engr.

Boykin and Mable Pegues Scholarship (40:\$500) FR in engr.; awarded by Col. of Engr.

**Donald J. Waguespack Scholarship in Engineering (varies; varies)** Full-time FR in engr.; 3.0 GPA; ACT score equal to or greater than that of the prior year's entering freshman average; financial need considered; priority to Terrebonne High School students or Atlanta, Georgia residents; awarded by Col. of Engr.

## **Other Scholarships**

3-2 Program Scholarship FT UG JR; enrolled in Mech. Engr.; 3.50 GPA.

**AADE Lafayette Chapter Scholarship** FT UG; enrolled in Pet. Engr. or the Col. of Engr. taking PETE courses; expressed interest in Drilling Engineering; 2.5 GPA; financial need considered; selected by the Chair of the Dept. of Pet. Engr or by designee and approved by Dean of Col. of Engr.

Henry Gee Abbott Scholarship FT; enrolled in Col. of Engr.; 2.0 GPA; selected by Dean of Col. of Engr. Yalcin B. Acar Memorial Scholarship (1:varies) UG in civil engr.; 3.00 GPA; awarded by Dept. of Civil & Envr. Engr. Ned Adler Memorial Full-time 75 credit hours earned; 2.5 GPA; declared mech. engr. major; financial need considered; awarded by Dept. of Mechanical Engineering.

**W. R. Aldrich Scholarship** (varies:varies) UG in engr.; graduate of LA high school; need and academic achievement; awarded by Col. of Engr.

Amerada Hess Foundation (varies: \$1,250) Full-time JR in pet. engr.; awarded by Dept. of Pet. Engr.

American Association of Drilling Engineers Scholarship (varies:varies) Full-time UG I pet. engr.; interest in drilling engineering; 2.50 GPA; financial need; U.S. citizen; 24 credit hrs. earned; awarded by Dept. of Pet. Engr.

American Petroleum Institute (API) - Houston Chapter Scholarship FT UG; enrolled in Col. of Engr. majoring in Pet. Engr.; academic merit and financial need considered; selected by the Chair of the Dept. of Pet. Engr or by designee and approved by Dean of Col. of Engr.

**Henry and Nordine Arnaud Scholarship in Petroleum Engineering (varies:varies)** Full-time UG in pet. engr.; JR or SR with 2.70 GPA; financial need; employed part-time for 10 hrs. minimum; resident of one of the following parishes: Acadia; Avoyelles; Calcasieu, Cameron, Evangeline, Jefferson Davis, Iberia, Lafayette, Lafourche, St. Landry, St. Martin, St. Mary, Terrebonne or Vermillion.

Associated General Contractors of Louisiana, Inc. (varies: \$500/yr.) SO in const. mgt.; selection based on need and association with construction industry; awarded by Dept. of Const. Mgt.

**ASSCT Undergraduate Sugar Processing Scholarship (varies:varies)** Full-time UG; 2.75 GPA; BAE, ChE, ECE, ME, pref. sugar cane producing parishes: Acadia, Allen, Ascension, Assumption, Avoyelles, Calcasieu, Cameron, East Baton Rouge, Evangeline, Iberia, Iberville, Jefferson Davis, Lafayette, Lafourche, Pointe Coupee, St. Charles, Rapides, St. James, St. John, St.

Landry, St. Martin, St. Mary, Terrebonne, Vermillion or West Baton Rouge; awarded by Col. of Engr. Atlas Power Scholarship (varies:varies) Full-time UG in engr.; 2.80 GPA; awarded by Col. of Engr.

**Gail Robinson Wilbur Baker** Full-time sophomore female; 3.0 GPA; U.S. citizen; campus involvement considered; awarded by Col. of Engr.

**Baker Hughes Endowed Scholarship** Full-time UG in engr.; 3.0 GPA; financial need considered; preference to dependents or employees of Baker Hughes or affiliated companies.

BASF Corporation Engineering Scholarship (1:\$1,200) UG in engr.; 3.00 GPA; awarded by Col. of Engr.

Harold T. Barr Memorial Scholarship UG in biol. engr.; 3.0 GPA and financial need; awarded by Dept. of Biol. & Agr. Engr.

Zaki A. Bassiouni Endowed Scholarship (varies:varies) Full-time UG in pet. engr.; financial need; academic merit; awarded by Dept. of Pet. Engr.

Richard L. Bengston Endowed Scholarship in Biological Engineering Full-time UG in biol. Engr.; overall GPA 3.0; financial need, and a US citizen; awarded by Dept. of Biol. & Agr. Engr.

**Ram N. Bhatia Scholarship in Chemical Engineering** Full-time UG in chem. engr.; overall GPA 3.0; special consideration to citizens of India; awarded by Dept. of Chem. Engr.

**Baton Rouge Water Company Scholarship in Civil & Environmental Engineering** FT JR, SR; enrolled in Col. of Engr. with focus in water works; selected by Chair of Dept. of Civil Engr.; 3.25 GPA.

Board of Regents (varies:varies) FT; GR in engr.; 3.50 GPA

**Bourgeois and Associates, Inc. Scholarship (1:\$1,200)** FT; UG; incoming freshman preferred (freshman-through-senior eligible) pursuing occupational health & safety IAT curriculum, Louisiana resident, 2.75 GPA upon high school graduation, and 21 ACT composite score. Preference given to students from LaFourche, Assumption, Terrebonne and St. Mary parishes.

Adam T. Bourgoyne Construction Management Scholarship Excellence Fund (varies:varies) FT; UG; junior or senior CM major, 3.0 GPA or better and be in top 10 in his/her class year, recipient must have demonstrated high ethics.

Ted Bourgoyne Endowed Scholarship (varies:varies) Full-time UG in pet. engr.; academic merit; financial need; awarded by Dept. of Pet. Engr.

• **BP** America Inc. Endowed Scholarship (varies:varies) Full-time UG in pet. engr.; awarded by Dept. of Pet. Engr. **BP** Scholarship for Energy in Engineering FT SO, JR, SR; enrolled in Col. of Engr.; 3.0 GPA; selected by Dean of Col. of Engr.

**BP Scholarship for Energy in Engineering #2** FT SO, JR, SR; enrolled in Col. of Engr.; 3.0 GPA; selected by Dean of Col. of Engr; preference for minority students.

\*BP America Scholarship (varies:varies) Full-time UG in chem. engr.; awarded by Dept. of Chem. Engr.

**BP Minority Petroleum Engineering Scholarship Fund (varies:varies)** FT; UG; U.S. citizen/perm. res., sophomore year, enrolled in ChE, ME, or PETE. First preference shall be given to minority students. At least 3.0 GPA for all college-level work, be active in extra-curricular organizations (school and/or community) with leadership roles, and not receive other similar corporate financial aid tied to summer employment. Financial need may be a consideration.

John B. Brock, III Endowed Scholarship (varies:varies) Full-time UG in pet. engr.; awarded by Dept. of Pet. Engr. Leo Broering Memorial Scholarship in Chemical Engineering Full-time UG in chem. engr.; overall GPA 3.2; financial need considered; special consideration to interns at Shell's Geismar, LA plant; awarded by the Dept. of Chem. Engr.

William Brookshire Scholarship in Engineering (varies:varies) Full-time SO/JR/SR or GR students working on a non-thesis masters degree in engr., students with 30+ hrs. combined work and course work preferred, US citizen and financial need may be considered; awarded by Col. of Engr.

Les and Dot Broussard Scholarship FT UG; enrolled in Dept. of Elect. Engr.; selected by Chair of Dept. of Elect. & Comp. Engr.; financial need considered.

**William H. and Barbara A. Brown Scholarship in Biological and Agricultural Engineering** Full-time UG or half-time GS; 3.0 GPA on all college work; demonstrated excellence in engineering design or research; special consideration shall be given to a student who has participated in an engr. internship program; awarded by the Dept. of Biol. & Agr. Engr.

Robert G. Bryan Scholarship (varies: varies) UG in pet. engr.; awarded by Dept. of Pet. Engr.

Davis S. and Martha L. Bunnell Scholarship in Engineering FT UG; majoring in Chem. or Mech. Engr.; 3.0 GPA; financial need considered.

**Joseph W. Carmena, Sr. Memorial Scholarship** Full-time UG in civil or envr. engr.; 3.2 GPA; financial need considered; preference given to a student from a rural area in LA; awarded by CEE dept.

**Charles M. Carraway and Joanne M. Carraway Scholarship** Full-time UG in pet. engr.; 3.0 GPA; financial need considered. **Celanese Chemicals Chemical Engineering Scholarship Fund (varies: \$500)** FT; UG; ChE sophomore or junior, 3.0 GPA, U.S. citizen or full-time resident, member of one or more professional associations, and has interest in considering Celanese Chemicals as an employer upon graduation.

Alden J. and Barbara S. Chauvin Scholarship Full-time UG in elec. and comp. engr.; 3.0 GPA; financial need considered; must have been born in Louisiana or have at least one parent born in LA; preference given to student expressing interest in "alternative energy solution" career; awarded by ECE dept.

**Chemical Engineering Scholarship Fund (varies:varies)** FT; UG; JR or SR, 3.0 GPA, U.S. citizen or perm. resident. **\*Chevron Texaco Company Scholarships in Chemical Engineering (varies:varies)** UG in chem. engr.; awarded by Dept. of Chem. Engr.

**Chevron Texaco Scholarship Fund in Mechanical Engineering (varies:varies)** FT; UG; ME major (junior or senior), GPA 3.0 or better, preference given to students whose enrollment and leadership promote diversity should also be considered. **Chevron Texaco Scholarship in Electrical Engineering** Full-time UG in elec. engr.; 3.0 GPA; preference to upperclassmen who promote leadership and diversity.

**Chevron Computer Science Scholarships (6:\$1,000)** UG major in computer sci.; U.S. citizen or permanent resident; awarded by Col. of Engr.

\*Chevron Texaco Company Scholarships in Petroleum Engineering (varies:varies) UG in pet. engr.; U.S. citizen or permanent immigration visa; awarded by Dept. of Pet. Engr.

**Chevron Texaco Scholarship in Civil Engineering (varies:\$1000)** FT; UG in civ. engr.; 3.00 GPA; must exhibit leadership **CITGO Petroleum Corporation Scholarship** FT UG in Chem. Engr.; awarded in JR or SR year.

**CITGO Scholarship** FT UG; enrolled in Mech. Engr.; academic merit and financial need considered; selected by Chair of Dept. of Mech. Engr.

**Civil Engineering Scholarship Fund** FT UG; enrolled in Dept. of Civil & Envr. Engr.; 3.0 GPA; selected by Dean of Col. of Engr.

Class of Late 1970s Alumni Scholarship (varies: varies) Full-time UG in pet. engr.; awarded by Dept. of Pet. Engr.

\*Jesse Coates Award (1:varies) UG in chem. engr. who shows most outstanding leadership.

COE Alumni Scholarship (varies:varies) UG in engr.; awarded by the Col. of Engr.

\*Conoco Phillips Undergraduate Scholarship in Chemical Engineering (varies:varies) Full-time UG in chem. engr.; awarded by Dept. of Chem. Engr.

Conoco Phillips Scholarship FT UG; majoring in Petr. Engr.; awarded by Chair of Petr. Engr.

**Construction Industry Advancement Fund of Lafayette and Vicinity Scholarship (2:\$500)** FT; UG; CM major, SO/JR/SR, resident of Acadia, Evangeline, Iberia, Lafayette, St. Landry, St. Martin, St. Mary or Vermilion parish. Selection based on scholarship, need, and association with the construction industry.

**Construction Management Alumni Chapter Scholarship (2:\$1000)** Full-time JR/SR in construction management; 2.5 GPA; work experience in construction industry preferred; awarded by CM dept.

**Construction Management Miscellaneous Donors Scholarship** (varies:**\$500**) FT; UG in constr. man.; 3.00 GPA. **Stanley M. and Hilma R. Cothren Scholarship** Full-time UG in civil or envr. engr.; 3.2 GPA; financial need may be considered; awarded by CEE dept.

**Eugene R. Cox Scholarship in Chemical Engineering (varies:varies)** Full-time SO/JR/SR in chem. engr.; 3.0 GPA; preference given to students from Calcasieu or Cameron Parish; financial need may be considered; awarded by Dept. of Chem. Engr. **Bill Crawford Memorial Scholarship** FT UG; enrolled in Dept. of Civil & Envr. Engr.; awarded by Chair of Civil & Envr. Engr.

**B.** C. Craft Memorial Foundation Scholarship (varies:varies) UG in pet. engr.; awarded by Dept. of Pet. Engr. Craft & Hawkins Endowed Scholarship (varies:varies) Full-time UG in pet. engr.; awarded by Dept. of Pet. Engr. John deMarsche Memorial Scholarship in Construction Management (varies:varies) Full-time JR/SR in construction management; 2.75 GPA; interest in international work in construction industry preferred; awarded by CM dept.

**Devon Energy Corporation Petroleum Engineering Scholarship** Full-time UG with declared major in petr. engr.; 3.0 GPA; must be a citizen or permanent resident of U. S.; awarded by Dept. of Pet. Engr.

William H. and Tanya B. Ditto Scholarship (varies:varies) UG in elec. engr.; 3.00 GPA; awarded by Dept. of Elec. Engr. Gene and Sylvia Duke Family Endowed Scholarship Full-time UG in civil, industrial, mechanical or petroleum engineering; preference to high school graduates from Istrouma Senior High School (Baton Rouge), Belaire Senior High School (Baton Rouge), or Denham Springs Senior High School (Denham Springs); natives of Baton Rouge, or those who have a family heritage in Baton Rouge; awarded by Col. of Engr.

**O. Dewitt Duncan Scholarship** (varies:varies) Full-time UG in chem. engr. with 2.50 GPA; awarded by the Dept. of Chem. Engr.

Floyd S. Edmiston, Jr. Scholarship (varies:varies) Full-time UG in chem. engr.; 3.00 GPA; financial need; awarded by Dept. of Chem. Engr.

**Earl and Maryanne Evans Engineering Scholarship** (1:varies) FT; female UG in engr.; LA resident; financial need; awarded by CoE Diversity Programs.

ECE General Scholarship FT student in Elect. or Comp. Engr.; 3.0 GPA.

**Environmental Technical Sales, Inc. (ETEC) Scholarship** FT JR, SR in Dept. of Civil & Envr. Engr.; awarded by Chair of Dept. of Civil & Envr. Engr.; financial need considered.

**Evacuation & Transportation Scholarship** FT UG in Dept. of Civil & Envr. Engr.; 3.0 GPA; or FT PT GR with 3.5 GPA. **Exxon Mobil Scholarship** FT in Col. of Engr.; 3.0 GPA; awarded by Dean of Col. of Engr.

**Exxon Mobil Diversity in Engineering Scholarship (varies:varies)** FT; UG in eng; 3.00 GPA; academic ability; top 25 percent of high school clas; 26 ACT; awarded by Col of Engr.

Falcon Family Endowed Scholarship (varies:varies) Full-time UG in pet. engr.; awarded by Dept. of Pet. Engr.

\*Ashton and Brent Fenet Scholarship (varies:varies) Full-time UG; asphalt technology in civil engr.; awarded by Dept. of Civil & Envr. Engr.

**Robert G. Flory Scholarship Fund (varies:varies)** Full-time SO/JR/SR in elec. engr.; 3.00 GPA; U.S. citizen; LA resident of Acadia, Lafayette, or Vermillion Parish; awarded by Dept. of Elec. Engr.

William Flores Jr. Family Scholarship (varies:varies) Full-time UG in pet. engr.; 2.5 GPA; financial need may be considered; awarded by Dept. of Pet. Engr.

**GDL Foundation Scholarship** FT UG in Petr. Engr.; academic merit and financial need considered; awarded by Chair of Dept. of Petr. Engr.

Don Ray George Scholarship (varies: varies) Full-time UG/GR in pet. engr.; awarded by Dept. of Pet. Engr.

Gerard Family Undergraduate Scholarship in Chemical Engineering (varies:\$4,000) UG in chem. engr.; LA resident; awarded by Dept. of Chem. Engr.

Karl German Memorial Scholarship (varies:varies) Full-time UG in mech. engr.; enrolled in Col. of Engr.; 2.95 GPA; awarded by Dept. of Mech. Engr.

Frank J. Germano Memorial Scholarship (varies:\$1,000) SO/JR/SR in civil engr.; financial need; awarded by Dept. of Civil & Envr. Engr.

Henry Gilbert Scholarship (varies:varies) UG/GR in pet. engr.; preferably from New York area; awarded by Dept. of Pet. Engr.

**Michael G. Glassell Memorial Scholarship Fund (3:\$1,000)** UG in civil engr.; awarded by Dept. of Civil & Envr. Engr., Interfraternity Athletic Council president, and  $\Sigma AE$  president.

Clara and Frank Groves, Sr. Scholarship (1:\$1,200) UG in chem. engr., awarded by Dept. of Chem. Engr.

Halliburton Scholarship SO JR ENGR majors supporting the energy industry; minorities and first generation considered; 3.0 GPA.

**R. L. Hartman Scholarship** (1:varies) JR in chem. engr., 3.00 GPA; financial need; native Louisianian; awarded by Dept. of Chem. Engr.

**Murray F. Hawkins, Jr. & William R. Holden Achievement Scholarship (varies:varies)** Full-time UG in pet. engr.; 3.00 GPA; awarded by Dept. of Pet. Engr. Murphy J. Hebert Family Scholarship in Petroleum Engineering Full-time UG in petroleum engineering; 3.0 GPA; financial need may be considered; first preference given to Louisiana citizens and U.S. citizens; second preference given to U.S. citizens who have a LSU alumnus parent or grandparent; third consideration to a student in mechanical engineering with interest in petroleum industry; awarded by PETE dept.

Hess Foundation (varies:varies) Full-time JR in pet. engr.; demonstrated outstanding scholastic achievement; awarded by Dept. of Pet. Engr.

Bill Hise Endowed Scholarship (varies:varies) Full-time UG in pet. engr.; awarded by Dept. of Pet. Engr.

**Bill Holden/NACME Endowed Scholarship (varies:varies)** Full-time UG in pet. engr.; 2.50 GPA; preference for minorities; Louisiana residents; NACME participants; awarded by Dept. of Pet. Engr.

Thomas Hopkins Scholarship FT UG in Col. of Engr.; 2.5 GPA.

Paul M. Horton Memorial Undergraduate Scholarship (varies:varies) UG in chem. engr.; 3.50 GPA; financial need; awarded by Dept. of Chem. Engr.

Houston-LSU Alumni Scholarship (varies:varies) Full-time UG in Col. of Engr. with ACT of 27; Houston area residents given precedence; awarded by the Col. of Engr.

**Paul N. Howell Endowed Scholarship (varies:varies)** Full-time UG in chem. engr.; 3.00 GPA; financial need; awarded by Dept. of Chem. Engr.

**Industrial Engineering General Scholarship** FT UG in Constr. Mgt.; 3.0 GPA; financial need considered; awarded by Dean of Col. of Engr.

Industrial Engineering Sustaining Scholarship (varies: varies) UG in ind. engr.; awarded by Dept. of Ind. & Manf. Systems Engr.

Industrial Technology Club Scholarship (1:\$1,000) FT; UG; junior or senior CM or Industrial Technology major. Financial need considered.

Willow Johnston Memorial Scholarship 2nd year or greater FT female UG in Col. of Engr.; 3.0 GPA; financial need considered.

**Montez Juneau Endowed Scholarship (varies:varies)** Full-time UG in pet. engr.; 2.50 GPA; awarded by Dept. of Pet. Engr. **Kaiser Aluminum Scholarship (varies:varies)** Full-time; preference for minorities; awarded by Col. of Engr.

**David Kamolsiri Memorial Scholarship** Full-time UG in pet. engr.; 3.0 GPA; financial need considered; awarded by Dept. of Pet. Engr.

**Ray Kazmann Memorial Scholarship Fund (varies:varies)** FT; UG; CEE major, 2.7 GPA, need may be a consideration. **Oscar K. Kimbler Scholarship (varies:varies)** Full-time UG in pet. engr.; awarded by the Dept. of Pet. Engr.

Joseph A. Kleinpeter Endowed Scholarship (varies:varies) Full-time UG in chem. engr.; 3.00 GPA; financial need; selected by Dean; awarded by the Col. of Engr.

H. Markham Krause, Sr. Endowed Scholarship (varies:varies) Full-time UG in pet. engr.; awarded by Dept. of Pet. Engr. Tracy W. Krohn—Family Endowed Scholarship (varies:varies) Full-time UG in pet. engr.; financial need; academic merit; awarded by Dept. of Pet Engr.

**Alden J. "Doc" Laborde Scholarship** FT in Dept. of Petr. Engr.; awarded by Chair of Dept. of Petr. Engr. **Erin Krielow Lahr Memorial Scholarship (varies:varies)** FT; UG; JR or SR, CEE major, 3.0 GPA, priority to female students, financial need may be a consideration.

\*Adrian Virginia Lazarus Memorial Award Fund (1:\$1,500) UG in computer sci.; 3.00 GPA; awarded by Col. of Engr. Albert Pierre Levy Scholarship (1:varies) UG in mech. engr.; financial need; LA resident; awarded by Dept. of Mech. Engr. LASpace Fellowship (2:varies) FT or PT; GR in mech. engr.

Amy & James Lilly Scholarship FT UG JR SR in Dept. of Elect. & Comp. Engr.; financial need considered.

Louisiana Asphalt Pavement Association Full-time SO, JR, SR in civil engr. or const. mgmt.; Hot Asphalt Technology course required; awarded by Dept. of Civil Engr.

\*Louisiana Engineering Societies Auxiliary (Baton Rouge Chapter) Award (2:\$1,000) UG in engineering; based on need and academic promise; awarded by Col. of Engr.

\* Louisiana Engineering Society Auxiliary (New Orleans Chapter)—Samuel McCain Young Scholarship (1:\$1,000) UG in civil engr. from N. O. area; awarded by Col. of Engr.

\*Louisiana Engineering Society, Baton Rouge Chapter Scholarship (1:\$500) UG in engr.; need and academic promise; awarded jointly by Col. of Engr. and LES-BR.

Gene Perdue Lowe Scholarship in Chemical Engineering (varies:varies) Full-time JR in chem. engr.; 2.0 GPA; U.S. citizen; awarded by Dept. of Chem. Engr.

Marathon Ashland Petroleum LLC Scholarship SO JR or SR in Mech. Engr.; 3.5 GPA; students from River Parishes (St. John, St. James, and St. Charles)

**Marathon Engineering Diversity Undergraduate Scholarship (varies:\$5000)** FT; SO/JR/SR; in engr.; 3.0 GPA & academic excellence; awarded by CoE Diversity Programs.

**Marathon Mechanical Engineering Undergraduate Scholarship Fund (varies: \$1,250)** FT; UG; ME major (sophomore, junior, or senior), GPA 3.5 or better, preference given to students from St. John, St. James and St. Charles parishes, when possible.

Marathon Oil Foundation Minority Scholarship (varies:\$1250) FT or PT; SO/JR/SR; in chem. or mech. engr.

Marathon Oil Undergraduate Minority Engineering Program Scholarship Fund (5:varies) FT; UG; UG seeking degrees in ChE, ME, EE, CE, or PETE. Consideration will be given to all academic and nonacademic strengths and achievements, as well as the ways a contender may contribute to a diverse educational environment. Preference given to first-generation college students and/or those who demonstrate financial need.

\*Marathon Scholarship in Chemical Engineering (varies:varies) UG in chem. engr.; awarded by Dept. of Chem. Engr.

- \* Marathon Oil Company Scholarship in Petroleum Engineering (varies:varies) UG in pet. engr.; awarded by Dept. of Pet. Engr.
- Mansel M. Mayeux Honorary Scholarship UG in biol. engr.; 2.5 GPA, financial need and US citizen; awarded by Dept. of Biol. & Agr. Engr.

\*Andrea Kay Martin Memorial Scholarship (1:varies) JR or SR major in computer sci.; awarded by Col. of Engr. Martin Foundation Scholarship FT UG in Forestry, Mech. Engr. or Indust. Engr.; 3.0 GPA; ACT score 23; for dependents of Roy O. Martin Lumber Company

Shirley Mayhall Memorial Scholarship (varies:varies) UG in chem. engr.; financial need; academic ability; awarded by Dept. of Chem. Engr.

\*McDermott Corporation Scholarship (3:\$1,000) JR/SR in civil engr.; awarded by Dept. of Civil & Envr. Engr. William McFatter Scholarship (varies:varies) Full-time UG in chem. engr.; awarded by the Dept. of Chem. Engr. Mechanical Engineering Award (varies:\$500) FT; UG in good standing; U.S. citizen.

**ME Alumni Scholarship** FT UG in Petr. Engr.; academic merit and financial need considered; awarded by Chair of Dept. of Petr. Engr.

Walter Middleton, Jr. Endowed Scholarship (varies:varies) Full-time UG; preference to ChE major; financial need; awarded by Dept. of Chem. Engr.

\*Charles E. Milner Scholarship (varies:varies) Full-time UG; asphalt technology in civil engr.; awarded by Dept. of Civil & Envr. Engr.

Minority Engineering General Scholarship—REHAMS (varies:varies) FT; UG in engr.

Newfield Exploration (1: \$2,500) UG in pet. engr.; 3.2 GPA; awarded by Dept. of Pet. Engr.

**A. W. Nolan, Jr. Endowed Scholarship** Full-time UG in civil engineering; 2.0 GPA; awarded by Department of Civil Engineering.

Noland Scholarship (2:\$1,000) UG in civil engr.; 2.00 GPA; awarded by Dept. of Civil & Envr. Engr.

Northrop Grumman Diversity Scholarship (1:\$2000) FT; SO/JR/SR; in elec. & comp. engr., mech. Engr., constr. Mgt., or ind. Engr.; 3.0 GPA; academic excellence; awarded by CoE Diversity Programs.

Nortrax/LAPA Scholarship (varies: \$2,000) Full-time SO/JR in civil engr.; Hot Mix Asphalt Technology course required; awarded by Dept. of Civil Engr.

James A. Nugent, Jr. Scholarship FT UG in Dept. Civil & Envr. Engr.; awarded by Chair of Dept. of Civil & Envr. Engr. **ONR/HBEC Future Engineering Faculty Award (1:varies)** FT; GR in engr.; 3.50 GPA

Richard O'Shields Scholarship (varies:\$1,000) UG in engr.; 3.00 GPA; awarded by Dept. of Pet. Engr.

Clint Ourso and Jennifer Romine Scholarship Full-time JR, SR in elec. or comp. engr.; overall GPA 3.4-3.7; awarded by Dept. of Elec. and Com. Engr.

Boykin and Mable Pegues Scholarship (80:\$1,000) UG in chem. engr., civil engr., elec. engr., ind. engr., mech. engr., and pet. engr.; awarded by Col. of Engr.

Petroleum Engineering General Scholarship—Newfield Exploration Company (2:\$1250) FT: UG in pet. engr.

Petroleum Engineering Miscellaneous—API Houston Chapter (varies:\$750) FT; UG in pet. engr.; 2.00 GPA; academic ability and potential for success.

Petroleum Engineering Miscellaneous-SPE Dallas section (varies: \$1000) Ft; UG or GR in petr. engr.; 2.00 GPA; academic merit and potential for success

Petroleum Engineering Miscellaneous-RPSEA (varies:\$2500) FT; UG or GR in petr. engr.; 2.00 GPA; academic merit and potential for success

Pile Driving Contractors Association Gulf Coast Chapter Scholarship FT UG in Dept. of Constr. Mgt.; financial need considered; awarded by Dean of Col. of Engr.

Wiley D. Poole Memorial Scholarship Full-time SO, JR, SR majoring in biol. engr.; 3.0 GPA and financial need; awarded by Dept. of Biol. & Agr. Engr.

Alan M. Raymond (varies:varies) Full-time UG in chem. engr.; awarded by Dept. of Chem. Engr.

Raytheon Scholarship (1:\$1,000) JR in engr.; awarded by Col. of Engr.

Research Partnership to Secure Energy for America (varies: \$2500) Full-time UG in pet. engr.; awarded by Dept. of Pet. Engr.

Joe and Kim Reid Scholarship FT JR or higher UG in Petr. Engr.; 3.0 GPA; financial need considered; awarded by Chair of Dept. of Petr. Engr.

\*George Reymond Scholarship (varies: varies) UG in elec. engr.; 2.50 GPA; awarded by Dept. of Elec. Engr. Return to Learn Scholarship in Petroleum Engineering Full-time UG; part-time employment in upstream oil required; awarded by Dept. of Pet. Engr.

Routh Family Scholarship (varies:varies) JR or SR in chem. engr., elec. engr., or pet. engr.; awarded by Col. of Engr. Schlumberger Foundation, Inc. Scholarship (varies:varies) JR/SR in pet. engr.; awarded by Col. of Engr. and Dept. of Pet. Engr.

Hermann Schluter Family Scholarship (1:\$1,000) SO or above in engr.; 3.00 GPA; awarded by Col. of Engr.

Scholarship Fund for Minority Engineering Program Students in Chemical Engineering (varies:varies) FT; UG; ChE major; preference to minority students.

Scott-Windham Scholarship UG in biol. and agr. engr; 2.5 GPA; financial need considered; awarded by Dept. of Biol. & Agr. Engr.

\*John J. Seip Memorial Scholarship Award (1:varies) GR in Audubon Sugar Institute, studying sugar technology; awarded by Dept. of Chem. Engr.

John E. Seip Scholarship (varies:varies) UG in chem. engr.; awarded by the Dept. of Chem. Engr.

The Shaw Group Diversity Scholarship (2:\$2500) FT; SO/JR/SR in engr. Prefer civil & mech. Engr.; 2.5 GPA; financial need, leadership & community service: awarded by CoE Diversity Programs.

Shell Incentive Fund Scholarship FT; awarded by immediate senior admin. officer of dept.

Shell Scholarship FT in Col. of Engr.; awarded by immediate senior admin. officer of dept.

Andrew J. Shoup, Jr. Endowed Scholarship (varies:varies) Full-time UG in pet. engr.; financial need; academic merit; awarded by Dept. of Pet. Engr.

Dr. Steven Seiden Endowed Scholarship in Computer Science (1:\$500) UG majoring in computer sciences; minimum 3.0 GPA

Society of Petroleum Engineers, Delta Section, Scholar-ship (varies:varies) UG in pet. engr.; awarded by Soc. of Pet. Engrs. Society of Petroleum Engineers, Evangeline Section, Scholarship (varies:varies) UG in pet. engr.; awarded by Soc. of Pet. Engrs.

Society of Petroleum Engineers, South Louisiana Section Scholarship (varies:varies) UG in pet. engr.; awarded by Soc. of Pet. Engrs.

Southeastern Asphalt User/Producer Group Scholarship (varies:\$3000) FT; UG in civ. engr.

South Louisiana Section Endowment Scholarship (varies:varies) Full-time UG in pet. engr.; preference given to Terrebonne, Lafourche, St. Mary or Assumption parish residents; awarded by Dept. of Pet. Engr.

Stokes & Spiehler-J.R. Spiehler Scholarship (varies:varies) Full-time UG in pet. engr.; financial need; academic merit; awarded by Dept. of Pet. Engr.

Carl Streva Engineering Scholarship (varies:varies) Full-time UG ; 2.00 GPA; St. Mary, St. Martin or Iberia Parish resident; awarded by Col. of Engr.

Robert S. Stricklin Scholarship (varies:varies) Full-time UG in engr.; 2.50 GPA; financial need; awarded by Col. of Engr. James Sturgis Scholarship (varies:varies) UG in mech. engr.; U.S. citizen; awarded by Dept. of Mech. Engr.

TAF Engineering Award (varies:varies) FT or PT; UG in engr.

**Patrick F. Taylor Scholarship (varies:\$1500)** FT; UG in engr.; 2.75 GPA; U.S. citizen with financial need and academic excellence; awarded by CoE Diversity Programs.

**Texas Tigers Golf/Houston Scholarship (varies:varies)** Full-time UG in pet. engr.; 3.50 GPA; financial need; priority to Texas residents; awarded by Dept. of Pet. Engr.

**Carl H. Thomas Memorial Scholarship** Full-time SO, JR, SR in biol. engr.; 3.0 GPA or above; awarded Dept. of Biol. & Agr. Engr.

Blakely and Archie Thompson Endowed Scholarship (varies:varies) Full-time UG in pet. engr.; awarded by Dept. of Pet. Engr.

**Total USA Scholarship (1-3:\$3,000)** FT; UG; sophomore-through-senior, major in ChE, ME, or CEE, 2.8 GPA or better, LA high school grad, preference to high school National Honor Society members and students recognized in the National Merit Scholarship Program, community service, need-based, membership in appropriate discipline-specific club (i.e. ASME, AIChE, etc.).

**Turner Industries LTD Scholarship Fund (varies:varies)** Full-time JR in Col. of Engr.; planning a career in construction, industrial maintenance, and/or electrical and instrumentation business; U.S. citizen; financial need; awarded by the CMIE Department.

Uniroyal Scholarship (varies:varies) JR in envr. engr.; 3.00 GPA; awarded by Dept. of Civil & Envr. Engr.

**Unocal Foundation Scholarship** Full-time UG in pet. engr.; 3.0 GPA; scholastic merit and financial need considered; awarded by Dept. of Pet. Engr.

**\*Vulcan Chemical Scholarship (3:\$1,000)** Full-time UG student in chem., mech., minority engr.; awarded by Col. of Engr. **Frank H. Walk Scholarship (varies:varies)** Full-time SR in chem., civil, elec. or mech. engr.; financial need; U.S. citizen; LA resident; awarded by Col. of Engr.

Robert E. Watson, Jr. Endowed Scholarship Full-time UG JR/SR in environ. engr.; 3.3 GPA.

\*George H. Wilson Scholarship (varies:varies) Full-time UG in asphalt technology in civil engr.; awarded by Dept. of Civil & Envr. Engr.

Harold Windham-Memorial Scholarship (varies:varies) UG/GR in pet. engr.; awarded by Dept. of Pet. Engr.

Floyd W. Womack, Sr. Scholarship (varies:\$1,000) Student in const. mgt.; awarded by Dept. of Const. Mgt.

W&T Offshore, Inc. Scholarship (varies:varies) Full-time UG in pet. engr.; financial need; academic merit; awarded by Dept. of Pet. Engr.

\*Claire & Bobby Yeargain Scholarship (varies:varies) Full-time UG in asphalt technology in civil engr.; awarded by Dept. of Civil & Envr. Engr.

Amy & Zeke Zeringue Endowed Scholarship (varies:varies) Full-time UG in pet. engr.; awarded by Dept. of Pet. Engr. Bill and Joanne Ziegler Scholarship FT JR or higher in Dept. of Mech. Engr. with interest in Nuclear Power Engr.; financial need considered.

# **College of Human Sciences & Education**

Most scholarships require students to maintain full-time status.

College Scholarships

**Barnidge-Texas Tiger Endowed Scholarship** UG (SO/JR/SR) in Col. of Hum. Sci. & Educ. with at least 3.00 high school GPA and 26 minimum on ACT/SAT equivalent; 3.00 LSU GPA semester/cumulative.

Marietta Boon Endowment Scholarship UG (SR) in Col. of Hum. Sci. & Educ.; financial need; 3.00 GPA.

College of Human Sciences & Education General Scholarship UG in Col. of Hum. Sci. & Educ.; 3.00 GPA; financial need considered.

Grace Bordelon Agate Scholarship student in the Col. Of Hum. Sci. & Educ.

**Robert E. and Earleen Dryer Nolan Scholarship** UG (SR) in Col. of Hum. Sci. & Educ. with at least a 3.00 GPA; recipient can receive only once.

Kenneth and Susan Garrett Scholarship UG or GR in Col. of Hum. Sci. & Educ. pursuing a degree in either the School of Education or the School of Social Work.

Shelby M. Jackson and Phoebe Steele Jackson Scholarship UG or G full-time student in Col. of Hum. Sci. & Educ., financial need a consideration.

Laura F. Lindsay Endowed Student Travel Fund supports student travel for a student in the Col. of Hum. Sci. & Educ. attending educational programs, including but not limited to study abroad programs.

Clyde L. Madden Memorial Endowment UG student in Col. of Hum. Sci. & Educ.; financial need.

**Dr. Guy C. Mitchell Education Scholarship** UG (SO/JR) in Col. of Hum. Sci. & Educ.; 3.00 GPA; LA student with true financial need; recipient can receive scholarship for two academic years.

T.J. Moran Graduate Student Scholarship GR in good standing in Col. Of Human Sci & Educ.

Lillian Oleson Scholarship GR student in good standing in Col. of Hum. Sci. & Educ.

**Howard and Margaret Patton Endowed Scholarship** UG student in good standing in the Col. of Hum. Sci. & Educ.; 3.00 GPA; financial need may be a consideration.

Tiger Athletic Foundation Scholarship UG in good standing in Col. of Hum. Sci. & Educ.

**Leonel Tustison and Helen L. Tustison** Scholarship UG GR full time students in the Col. of Hum. Sci. & Educ.; minimum 3.5 GPA; students who have graduated from a high school in East Baton Rouge Parish, West Baton Rouge Parish, Iberville Parish, or Ascension Parish.

Dr. Robert Von Brock Memorial Scholarship GR in good standing in Col. of Hum. Sci. & Educ.

School of Leadership & Human Resource Development Scholarships

Baton Rouge Lumber Scholarship School of Leadership & Human Resource Development

Building Materials Unlimited Award School of Leadership & Human Resource Development

Betty C. Harrison Fellowship GR full-time student in School of Leadership & Human Resource Development

Nelson Hauer Endowed Scholarship UG or GR in School of Leadership & Human Resource Development; 3.5 GPA.

Tom Keaty Award Endowment UG or GR in School of Leadership & Human Resource Development; 3.5 GPA.

School of Leadership & Human Resource Development General Scholarship Fund student enrolled in the School of Leadership & Human Resource Development.

#### School of Education

**Paul and Ellen Arst Scholarship** GR in curriculum & instruction, Col. of Hum. Sci. & Educ., pursuing special education certification; 3.00 GPA; financial need.

Association of Classroom Teachers of East Baton Rouge Parish Endowed Scholarship UG JR/SR in School of Education; graduate of EBR public high school; 3.00 GPA.

Association of Classroom Teacher Fellowship GR in School of Education pursuing master's or doctoral degree; LA classroom teacher.

Georgeanne Zimmer Boone Scholarship Fund UG Awarded to a student in the School of Education.

**Mark and Lisa Boudreaux Scholarship** UG or GR; full-time student pursuing a degree or certification in the School of Education; preference give to mathematics, science or special education certification.

**Gloria Owens & Bill J. Bryan Scholarship for Special Education** UG GR full time student in the School of Education pursuing a dual certification in Elementary Education/Special Education; 2.8 or higher GPA; recipients must be residents of on of the following parishes in north Louisiana: Caddo, Bossier, Webster, Claiborne, DeSoto, Red River, Bienville, Lincoln, Natchitoches, or Jackson.

**Clara Sevin Cagnolatti Student Award** UG in School of Education; majoring in elementary education; 3.0 GPA. **Ron and Phyllis Carver Superior Graduate Scholarship** GR in School of Education for the benefit of the Early Childhood Education Laboratory Preschool; full-time students with a specialization or concentration in Early Childhood Education; 3.5 GPA.

William Rodney Cline Philosophy of Education Scholarship GR in School of Education; UG degree from LA university or college, pursuing advanced degree in education.

William E. Doll Curriculum Theory Project Superior Graduate Student Scholarship GR full-time graduate students or postdoctoral fellows; participating in the Curriculum Theory Project; 3.0 GPA.

**Imogene & Thomas P. Dutsch Memorial Scholarship** GR in School of Education; master's level student pursuing initial certification as a teacher in LA.

**Charlene Muffoletto Favre Scholarship** UG full-time student in the teacher certification program; 3.0 GPA; preference given to members in good standing with the LSU Tiger Marching Band, Color Guard, Drum Line or Golden Girls.

Julia Kate Gerald Memorial Endowed Alumni Scholarship UG in early childhood education; 24 ACT; 3.00 GPA.

**George R. and Mary D. Helmer Superior Graduate Student Scholarship** GR in the School of Education; pursuing a degree in elementary or secondary education specializing in math and/or science education; 3.0 GPA.

Dana Hopkins Memorial Scholarship UG in math and/or science education; 3.00 GPA.

**Arthur and Judith Halbrook Scholarship** UG or GR full-time student pursuing a degree and/or certification in the School of Education; priority given to Holmes students who plan to pursue a profession in teaching.

**T.D. III and Sue Howe Geaux Teach Student Endowed Scholarship** UG full time students enrolled in the secondary teacher education certification program; 3.0 minimum GPA; declared major in biology, chemistry, physics, or mathematics. **Nancy Ruth Johnson Scholarship** GR in School of Education; art education; cumulative 3.00 GPA.

Albert H. LeBlanc Endowed Fellowship GR in School. of Education seeking initial certification in English education or English major seeking Education graduate degree; 3.00 GPA; resident of and willing to teach in LA.

**Ida Major Scholarship** UG or GR student enrolled in the Col. of Hum. Sci. & Educ. or teacher preparation program; 3.0 GPA. **Joanne J. Martin Geaux Teach Mathematics Scholarship** UG full-time student enrolled in LSU's Geaux Teach Mathematics program; must have a concentration in secondary education with a declared major in mathematics.

**Dot & Rolfe McCollister, Sr. Leadership Award** UG in School of Education; enrolled in teacher certification program; 2.8 GPA.

Joan Pender McManus Scholarship in the School of Education UG GR 24 ACT; full-time student; 2.8 GPA.

**Etta Obier Alumni Scholarship** UG (Incoming FR) with declared major in education/teaching field; preference to student from New Orleans area; 24 ACT; full-time student; 3.00 GPA.

**Katherine Evans Pope Scholarship** GR in School of Education seeking initial certification (Holmes Program); 3.00 GPA. **Dean E. B. Robert Scholarship** Advanced GR student in good standing in School of Education.

School of Education General Scholarship Fund student enrolled in the School Education.

**Michael and Carol Stamatedes Geaux Teach Scholarship** UG full-time student in the secondary education teacher certification program; 3.0 GPA; declared major in biology, chemistry, physics, or mathematics.

**L'Dora McKenzie Taylor and Charles Harlan Taylor Scholarship** UG full-time student in the Col. of Hum. Sci. & Educ.; preference given to a female student pursuing a teaching career.

Fred G. Thatcher Fellowship Advanced GR student pursuing EdS or PhD in administration or supervision; valid LA teaching certificate and five years teaching experience.

#### School of Kinesiology

Gary E. Albright Scholarship in Kinesiology UG in Kinesiology; 2.7 GPA.

Judy Bhatia Scholarship UG full-time student in the School of Kinesiology; 3.0 GPA.

**Dinah and John Bradford Superior Graduate Student Scholarship** GR full-time student in the School of Kinesiology. **James A. Cason Scholarship** UG full-time student in the School of Kinesiology with a 3.0 GPA.

**Jinks Coleman Memorial Scholarship** UG School of Kinesiology (JR/SR) in physical education; 3.00 GPA; preference to female; consideration to financial need, service, and commitment to daily quality physical education in schools.

James J. Corbett Scholarship GR School of Kinesiology

Robert and Irene Cosgrove Scholarship UG in kinesiology; 3.00 GPA; financial need considered.

Don Franks/President's Challenge Fellowship in Kinesiology GR Full-time student in the School of Kinesiology. Preference given to minority student.

Kathy and Ernie Hill Award in Kinesiology UG full time junior level students enrolled in the School of Kinesiology; 3.0 or higher GPA; donors' preference that recipients have an interest in pursuing a career in teaching and coaching.

Gerry Owens Scholarship UG in kinesiology; 3.00 GPA; financial need considered.

Premier Scholars UG in School of Kinesiology; 3.00 GPA; involvement in community service preferred.

Harry Rabenhorst Scholarship UG full-time student in the School of Kinesiology; 3.00 GPA; Louisiana native; preference to native of East Baton Rouge Parish.

Lea Thomas Memorial Scholarship UG full-time student majoring in K-12 Physical Education.

#### School of Library and Information Science

**Beta Zeta Scholarship** GR full time student enrolled in the School of Library and Information Science; 3.0 or higher GPA. **Robert D. and Barbara Biggs Student Award** full-time or part-time GR in School of Lib. & Info. Sci., first consideration given to females 30 years of age or older.

Anna C. Burns Library and Information Science Fellowship GR full time student enrolled in the School of Library and Information Science.

**Ollie H. Burns Scholarship** GR major in School of Lib. & Info. Sci.; academic ability; full-time or part-time student; first preference shall be given to minority student.

Chevron MLS Scholarship Fund GR major in School of Lib. & Info. Sci.

Helen Margaret Yerger Dew Scholarship GR full or part-time student in School of Lib. & Info. Sci. who demonstrates an interest in special libraries and information centers.

Donald D. Foos Scholarship GR major in School of Lib. & Info Sci.; academic ability.

Friends of the Lafayette Parish Public Library Fellowship GR major in School of Lib. & Info. Sci.; academic ability; resident of Lafayette Parish.

Mary M. Hanchey Memorial Fellowship GR major in School of Lib. & Info. Sci.; academic ability; a Louisiana graduate with demonstrated leadership skills.

Mary Hutcheson Memorial Fellowship GR pursuing a degree, minor, specialization, concentration or similar pursuit of studies in the School of Library and Information Science.

Jimmy Hartman Hoover Scholarship GR major in School of Lib. & Info. Sci.; academic ability; interested in academic libraries.

Suzanne Hughes-Francis Scholarship GR full or part-time student in School of Lib. & Info Sci.

Jane M. Lambremont Fellowship GR full or part-time student in School of Lib. & Info. Sci. who demonstrates an interest in medical libraries.

Louisiana Library Association Scholarship GR major in School of Lib. & Info. Sci.; academic ability; awarded by LA Library Association.

Lewis Mack Fellowship GR major in School of Lib. & Info. Sci.; academic ability.

**SLIS Frank and Margaret McEntee Travel Fellowship Fund** GR full time student enrolled in the School of Library and Information Science; provides travel assistance to attend programs at the America Library Association's Annual Conference; recipient should have a career goal of public library service.

Florinell F. Morton Scholarship GR major in School of Lib. & Info. Sci.; academic ability.

**Beth M. Paskoff Award** GR full time student enrolled in the School of Library and Information Science; donors' preference to be used for travel to make presentations at regional or national conferences.

**Richard W. Peck Scholarship** GR major in School of Lib. & Info. Sci.; academic ability; interest in youth services. **Agnes Corkern Sayers Fellowship** GR student in School of Lib. & Info. Sci.; first preference given to middle-aged women in the process of changing careers.

**Dorothy Beckemeyer Skau Scholarship Fund** GR full or part-time student enrolled in School of Lib. & Inf. Sci.; 3.0 GPA. **John and Hester Slocum Fellowship** GR major in School of Lib. & Info. Sci.; academic ability; resident of New Orleans. **Sidone Lawrence Walker Scholarship** GR major in School of Lib. & Info. Sci.; academic ability; demonstrated financial need. **H. W. Wilson Scholarship** GR major in School of Lib. & Info. Sci.; academic ability; part-time student.

Nettie Puckett Wilson Scholarship GR major in School of Lib. & Info Sci.; academic ability.

School of Library and Information Science General Scholarship Fund student enrolled in the School of Library and Information Science.

School of Social Work

**Marwood Ahrens Memorial Scholarship** (1) GR; financial need; academic ability; awarded to a full-time student proceeding to the second year of the MSW program who has an interest in the substance abuse field.

**Paul Arst Jr. Scholarship** GR; financial need; academic ability; awarded to a full-time student proceeding to the second year of the MSW program.

Adrian Aycock Memorial Scholarship GR; Awarded to a full-time incoming MSW student with an overall GPA of at least 3.5 for all college work.

**Baton Rouge Board of Realtors' Scholarship in Child Abuse Prevention & Treatment** GR; financial need; academic ability; awarded to a full-time student proceeding to the second year of the MSW program interested in pursuing a career in the area of child abuse prevention and treatment.

**Baton Rouge Metropolitan Lions Club Scholarship** GR; financial need; academic ability; awarded to a full- time student who has a Bachelor's Degree in Social Work from Southern University. Preference given to advanced standing students.

Gloria Pichon Clayton/ Texas Tiger Tournament Endowed Scholarship in Social Work GR; financial need; academic ability; awarded to a full-time student in the MSW program.

James Fairfax Cole Endowed Undergraduate Scholarship in Social Work UG full-time junior or senior students pursuing a degree in social work; demonstrated excellent written and oral communication skills; performed significant community service; financial need.

**Nancy Dicharry Award** GR; financial need; academic ability; awarded to a full-time student proceeding to the second year of the MSW program who has the highest GPA in the foundation year among the applicants.

Peggy Saxton Draughn Scholarship UG student Child and Family Studies; junior level requirements; 3.0 GPA.

**Kyra Leanne Jones Memorial Fellowship** GR; financial need; academic ability; awarded to a student in the School of Soc. Wk. who is physically challenged.

**Charlotte Kamiya Memorial Scholarhsip** GR; financial need; academic ability; awarded to a student transitioning from the part-time program to the full-time program proceeding to the second year of the MSW program and interested in pursuing a career in social work practice with children.

**LGPS Training Award Endowment** GR provides support to students in social work, psychology, or counseling committed to pursuing a career in group psychotherapy to attend groups psychotherapy educational programs.

**Phyllis Lefeaux & Drayton Vincent Fellowship in Mental Health** GR; financial need; academic ability; awarded to a ful- time student proceeding to the second year of the MSW program selected to intern at the LSU Student Mental Health Center.

**Carl Maddox Scholarship** GR; financial need; academic ability; awarded to a full-time student proceeding to the second year of the MSW program.

**Medical Social Work Scholarship** GR; financial need; academic ability; awarded to a full-time student proceeding to the second year of the MSW program who is interested in pursuing a career in medical social work.

**James Midgley Leadership Award** GR provides an award to a graduating masters level student in the School of Social Work who exhibits potential for leadership.

**Jimmy Lea Moles Scholarship** GR; financial need; academic ability; awarded to a full-time student proceeding to the second year of the MSW program.

**Christine Moore Fellowship** GR; full-time student in the second year of the MSW program; interested in pursuing a career in child abuse prevention and treatment; 3.2 GPA.

**C.** Paul Phelps Memorial Scholarship GR; financial need; academic ability; awarded to a full-time student who is interested in pursuing a career in corrections.

Alice A. & Milton E. Schmidt GR; financial need; academic ability; awarded to a full-time student proceeding to the second year of the MSW program who has made the most academic progress since initial enrollment.

School of Social Work Entering Class of 1951 Fellowship Fund GR; financial need; academic ability; awarded to a full-time student proceeding to the second year of the MSW program who has shown commitment and leadership in promoting diversity. School of Social Work Faculty Honor Fellowship GR; financial need; academic ability; awarded to a full- time student proceeding to the second year of the MSW program.

School of Social Work General Scholarship Fund Available to students in the School of Social Work.

Sharing Shores Scholarship GR full time students enrolled in the School of Social Work; donors' preference to be awarded to a female student who is a US citizen and intends to pursue a career in the prevention of abuse of women and children.Betty J. Stewart Memorial Award GR; financial need; academic ability; awarded to a full-time student proceeding to the second year of the MSW program who is interested in pursuing a career in social work practice with children.

## **College of Humanities & Social Sciences**

Above and Beyond Scholarship (1 per semester: \$100) Outstanding FR Air Force ROTC cadet involved in Cadet Wing; awarded by Dept. of Aerospace Studies.

Air Force Association Cadet Scholarship (4:\$250) Outstanding JR or SR Air Force ROTC cadet active in Cadet Wing: awarded by Dept. of Aerospace Studies.

Air Force ROTC Scholarship Four-year scholarship for entering FR desiring career as military officer; two- and three-year programs available for qualified SO/JR/SR; see ROTC for details.

**Robert B. Allen Scholarship for Student Travel Abroad (varies: varies)** FT HSS student; preference in Global Connections Residential College; awarded by Col. of HSS.

American Legion ROTC Cadet Scholarship (varies:varies) Outstanding JR Air Force ROTC cadet with financial need; awarded by Dept. of Aerospace Studies.

**Armed Forces Communication and Electronics Association Scholarship** (1:\$2,000) Outstanding JR Air Force ROTC cadet majoring in computer or mathematics related discipline; awarded by the Dept. of Aerospace Studies.

**Army ROTC Scholarship** Four-year scholarship for entering FR desiring to serve as Army officers; two- and three-year oncampus scholarships available for students attending LSU; see ROTC or Military Science for details.

Humanities & Social Sciences Athletic Scholarship (varies:varies) HSS student; must have overall 3.40 GPA and in LSU System; awarded by Col. of HSS.

Humanities & Social Sciences Advisory Council Scholarship (varies:varies) HSS student with financial need; must have 3.40 GPA overall and in LSU System; awarded by the Col. of HSS.

Humanities & Social Sciences Tiger Athletic Foundation Scholarship (varies:\$1,000) HSS student with financial need; must have a 3.40 GPA overall and in LSU System; awarded by the Col. of HSS.

**Barcelonette Scholarship (varies: varies)** UG student who has completed five semesters of FREN (through 2155); selection criteria includes scholarship, statement of intent, and conversational skills; awarded by Dept. of Fren. Studies.

**Brenda Bercegeay Memorial Award (1:\$1,000)** Incoming FR enrolled in the College of HSS; must have a 3.0 or higher GPA; must be from Ascension Parish; awarded by College of HSS.

Robert N. Bersuder Endowed Scholarship (2:varies) Outstanding JR in history.

**George C. and Merrit D. Betts Endowed Scholarship (varies:varies)** Nonresident of Louisiana; must be U.S. citizen; 3.50 overall GPA and in LSU System; awarded by the Col. of HSS.

Sheldon Beychock President's Leadership Scholarships in Political Science (8:\$1,000) Two scholarships for entering FR students; two for SO; two for JR; and two for SR; GPA of 3.00 and/or ACT of 25; awarded by a scholar-ship committee selected from Dept. of Pol. Sci.

George Warren Bofinger Endowed Scholarship (varies:varies) HSS student with financial need; must have 3.40 overall GPA and in LSU System; awarded by the Col. of HSS.

Jim Springer Borck Memorial Award (varies: varies) GR award; awarded by Dept. of English.

Peter Burland Endowed Scholarship See College of Science.

Cadets of the Ole War Skule Scholarship (varies:varies) SOPH Air Force ROTC cadet with potential and financial need during the freshman spring term.

Roderick Lewis Carleton Fellowship (1:\$450) GR in pol. sci.; awarded by Dept. of Pol. Sci.

Gale Carrithers Outstanding Essay Award (varies: varies) Outstanding GR in ENGL; awarded by Dept. of English.

James Bolner Outstanding Student Award (varies; 1,250) UG student majoring in Pol. Sci.; must have 3.0 overall GPA and in LSU System; financial need may be considered; awarded by Dept. of Pol. Sci.

**James J. Bolner, Sr. and Dudley Rochelle Carter Scholarship in Political Science (varies; varies)** FT Jr. or Sr. majoring in POLI; GPA of at least 3.2; financial need may be considered; awarded by Dept. of Political Science.

Matt Clark Memorial Fellowship (1:varies) FT graduate student pursuing MFA in creative writing with minimum 3.5 GPA; awarded by Dept of Engl.

**William M. Clarke Scholarship (varies:varies)** Full-time UG majoring in Classics with overall LSU GPA of at least 3.00 and at least 3.30 in Classics. Must have completed one year residence at LSU and have shown significant progress toward a degree in Classics (Latin, Greek, or equivalent); awarded by Dept. of For. Lang. & Lit.

**Richard M. Cole Fellowship** (1:varies) FT graduate student in history; fellowship is designed to help cover expenses for travel to archives and libraries to complete doctoral dissertation; preference given to students working in European history east of Rhine River; awarded by the Dept. of Hist.

College Supply Book Store Award (2:varies) Outstanding SO and JR UG soc. major; awarded by Dept. of Soc.

**M. Jane Collins Endowed Scholarship (varies:varies)** Full-time UG majoring in COMD; awarded by Dept of Communication Sciences & Disorders.

**Thomas A. and Peggy S. Collins Scholarship (1:varies)** Full-time incoming freshman enrolled in Col. of Humanities & Social Sciences with financial needs; GPA 3.0; preference of Jena High School or LaSalle Parish and second preference Winn, Caldwell, or Catahoula parishes resident; awarded by College of HSS.

**General A. Harry Conrad ROTC Scholarship (varies:varies)** FT cadet in Dept. of Aerospace Studies or Military Science; must demonstrate leadership potential and meet ROTC requisite academic and physical fitness standards; awarded by Dept. of Military Science and Aerospace Studies.

**Creative Writing Awards (varies:varies)** UG and GR students majoring in creative writing in Engl. Dept; awarded by the Dept. of Engl.

Gary A. Crump Scholarship (1:varies) Outstanding JR in history; awarded by Dept. of Hist.

Louis D. Curet Scholarship (varies:varies) FT student majoring in FREN with a minimum overall GPA of 3.0; awarded by the Dept. of Fren. Studies.

Jane Lucas Degrummond Memorial Scholarship (varies:varies) FT Jr. or Sr. majoring in HIST with a minimum overall GPA of 3.0; awarded by Dept. of History.

**Colonel Charles J. "Chuck" Dumas Air Force ROTC Scholarship (2:varies)** FT cadet in Dept. of Aerospace Studies with financial need; must demonstrate leadership potential and meet the ROTC requisite academic and physical fitness standard; awarded by Aerospace Studies.

ENT Audiology Fellowship (2:\$2,500) GR in final yr. of master's program in audiology; outstanding academic and clinical performance; one awarded each sem. by Dept. of Comm. Sci. & Dis.

**European Summer Session Latin Scholarship (3:\$300)** Awarded to Latin majors to supplement fees resulting from European Summer session; awarded by Dept. of For. Lang. & Lit.

Kenneth S. Falk Award (1:\$450 and plaque) UG in Greek; based on recommendation of head of classics; awarded by Dept. of For. Lang. & Lit.

**Cheryl Colletta Fasullo Scholarship (varies:varies)** Nonresident of Louisiana; must be a U.S. citizen; majoring in PSYC or SOCL with interest in pursuing a career in teaching; awarded by College of HSS.

**Undine Livaudais Fitzgerald Award (1:varies)** Out-standing French student participating in LSU in Paris program; awarded by Dept. of French Studies.

Joel Lafayette Fletcher Graduate Award for the Preservation of French Culture (1:varies) FT GR with concentration in language and society focused on Louisiana French culture.

Ned P. Folse Scholarship in Classical Language and Literature (varies:varies) Outstanding student majoring in Classical Studies; awarded by Dept. of For. Lang. & Lit.

Fred C. Frey Memorial Scholarship Award (varies:varies) Competition for outstanding scholarly paper by UG soc. majors; awarded by the Dept. of Soc.

**Friends of French Studies Graduate Student Scholarship** (varies:varies) GR majoring in French interested in French for Business concentration; awarded by Dept. of French Studies.

Lillie Petit & George Clark Gallagher Graduate Student Scholarship (varies:varies) GR majoring in French; preference given to students participating in travel abroad; awarded by the Dept. of French.

Ryan R. Gibbs Endowed Award for Excellence in Creative Writing (varies: varies) HSS student; two annual competitive awards for excellence in flash fiction and photography under the guidance of the literary journal *New Delta Review*. Paul Grosser Award (1:\$200) Graduate student teaching award; awarded by Dept. of Pol. Sci.

Andrew A. Gunby Award (1:\$50 and plaque) Outstanding graduating SR in Latin; awarded by Dept. of For. Lang. & Lit. William G. Haag Award (2:\$100) MS and PhD students in geog. & anth. presenting the most outstanding papers in professional meetings; awarded by Dept. of Geog. & Anth.

**Elliott Dow Healy Memorial Fellowship (varies:varies)** Outstanding GR in French language, literature, or culture; special preference given to students in Old French and/or Old Provencal; awarded by Dept. of French Studies.

**Dr. Edward Henderson Honorary Scholarship (varies:varies)** Incoming freshman majoring in PHIL or REL; awarded by the Dept. of Phil. & Rel. Studies.

**Colonel J. L. Hendrickson Scholarship (varies:varies)** FT student enrolled in the Air Force ROTC Cadet Group with a minimum GPA of 2.5; awarded by Dept. of Aerospace Studies.

Dr. Stanley Hilton Outstanding History Graduate Student Award (varies:varies) GR majoring in History; awarded by Dept. of History.

**Robert B. Holtman Memorial Scholarship (varies:varies)** FT UG majoring in History with a minimum overall GPA of 3.0; awarded by Dept. of History.

Henry V. Howe Memorial Scholarship Fund See College of Science.

**Major General Oris B. Johnson Scholarship (varies:varies)** AFROTC cadet; awarded by the Dept. of Aerospace Studies. **Elise S. and Charles E. Kaufman Endowed Scholarship (varies:varies)** HSS student with financial need; must have 3.40 overall GPA and in LSU System; awarded by the Col. of HSS.

\*Agatha LaCroix Award (1:varies) Outstanding student in French; awarded by Dept. of French Studies.

Lt. Col. Edward Blaise Landry Air Force ROTC Scholarship (varies:varies) FT Jr. or Sr. enrolled in the Air Force ROTC program; awarded by Col. of HSS and Dept. of Aerospace Studies.

**Lange-Button-King Scholarship** (1:\$600) JR or SR in religious studies with special interest and aptitude in religious studies and in natural or social sci.; awarded by Rel. Studies faculty.

**Hoguet Alexander Major Memorial Scholarship (varies:varies)** UG or Grad students pursuing the study of the French language, rather such study be as part of a business curriculum or a teacher of French; minimum 3.00 GPA. Awarded by the Dept. of French Studies.

Herbert Huey McElveen Scholarship (1:\$500) HSS student; must have overall 3.40 GPA and in LSU System; awarded by Col. of HSS.

**Nora McLin and John Evans McGowan Scholarship (varies: varies)** FT UG majoring in History or Economics; minimum 3.0 GPA; awarded by Col. of HSS.

Mr. & Mrs. James S. McHugh Scholarship (varies:varies) HSS student; must have an overall 3.50 GPA (and LSU System). Awarded by the Col. of HSS.

**William G. McIntire Scholarship (varies:varies)** FT student with an expressed interest in coastal research; awarded by Dept. of G&A and Coastal Studies.

**Gay Miller Meaker and Harold N. Meaker Scholarship (1:varies)** SO, JR, or SR majoring in history with a minimum overall 3.0 GPA; must be LA resident; awarded by the Dept. of Hist.

John Milazzo, Jr. Honorary ROTC Scholarship (1:varies) FT cadet with financial need; must demonstrate leadership potential and meet the ROTC requisite academic and physical fitness standards; awarded by Dept. of Military Science. Military Officers Association ROTC Cadet Scholarship (1:\$100) Outstanding JR or SR Air Force ROTC cadet active in

Cadet Wing; awarded by Dept. of Aerospace Studies.

Kevin Moore Memorial Scholarship (varies:varies) FT student majoring in HIST or ENGL; awarded by College of HSS. Sidney Richards Moore Fellowship in Political Philosophy (varies:varies) FT graduate student studying political philosophy with financial need; awarded by College of HSS.

**Emily D. Mulcahy Scholarship (1:varies)** UG student majoring in POLI with financial need; awarded by Dept. of Poli. Sci. **Mu Sigma Rho Outstanding Upperclassman Scholarship (1:varies)** Award to benefit a graduate of LA high school pursuing an UG degree in the Col. of HSS; awarded by Col. of HSS.

**Bertrand A. Odinet, Sr. Scholarship in Political Science (1:\$1,000)** FT SO, JR, or SR majoring in POLI; GPA at least 3.0; may be required to submit one letter of recommendation and a 250 word essay on one investment local government; awarded by Dept. of POLI.

**Paul F. Paskoff Fellowship in History (1:varies)** FT GR enrolled in HIST; financial need may be a consideration; awarded by Dept. of History.

Roland J. Pellegrin Sociology Award (varies:varies) FT GR majoring in SOCL; awarded by Dept. of SOCL.

Emogene Pliner Fellowship (1:\$750) GR in pol. sci.; awarded by Dept. of Pol. Sci.

Police Jury Association of Louisiana Scholarship (1:\$250) SR in pol. sci.; LA resident; graduate of LA high school; awarded by Dept. of Pol. Sci.

**\*Roddy L. Richard General Studies Scholarship (1:varies)** At least 36 hours in gen. studies curriculum; full-time; at least 3.00 GPA.

Karl and Sue Roider Undergraduate Scholarship (1:\$500) FT UG student who had demonstrated consistent academic progress and has minimum overall GPA of 3.5; awarded by the Col. of HSS.

Richard J. Russell Awards in Physical Geography (varies: up to \$1,500) GR in geography conducting field research in physical geography; awarded by Dept. of Geog. & Anth.

**Corinne L. Saucier Romance Language Scholarship** (1:\$1,000) Graduating SR in French or Spanish; for advanced study at LSU or in foreign country; preference to students planning to teach; awarded by Dept. of For. Lang. & Lit. and Dept. of French Studies.

**Stephen P. Schierling Scholarship (varies:varies)** UG majoring in For. Lang. & Lit. with a minimum overall GPA of 3.0; awarded by Dept. of For. Lang. & Lit.

**Paco Schoonover Scholarship in Creative Writing (1:varies)** FT or PT student; preference given to those majoring in creative writing and who have overcome obstacles (e.g., illness or disability) to pursue college career; awarded by Dept. of Engl. **Harvey Jay and Betty Adele Jacobs Schwartzberg Fellowship (1:\$500)** First-year GR student in HSS; 3.5 UG overall GPA; and UG in ROTC or AROCT; awarded by the Col. of HSS.

Edward Salmond Shirley Scholarship in Philosophy (1:\$700) UG or GR majoring in philosophy or religious studies; awarded by the Department of Philosophy and Religious Studies.

**T. Clayton Simmons Memorial Scholarship** (1:\$500) Full-time incoming freshman enrolled in Col. of Humanities & Social Sciences; GPA 3.0; preference of Bossier Parish resident and participant in 4-H; awarded by College of HSS.

Thomas E. & Rebecca Reeves Simmons Scholarship in Memory of Thomas Clayton Simmons (varies:varies) FT incoming freshman enrolled in College of HSS; preference of Bossier Parish resident and participant in 4-H; awarded by College of HSS. Lewis Simpson PhD Student Travel Award (varies:varies) GR student majoring in ENGL; preference for travel to

conferences, present paper or other academic purpose that will enrich their PhD experience; awarded by Dept. of English. **James M. Smith, Jr. Endowed Scholarship in Romance Languages (varies:varies)** Outstanding UG majoring in a Romance Language; awarded by Dept. of For. Lang. & Lit. and Dept. of French Studies.

**Stage Acadie Scholarship** (1:\$1,000) UG student who has completed five semesters of French (through FREN 2155); selection criteria includes scholarship, statement of intent, and conversational skills; awarded by Dept. of French Studies.

Joy Louise Sullivan Memorial Travel Abroad Scholarship (varies; varies) FT Soph., Jr., or Sr., student; Resident of Louisiana; traveling abroad for an LSU program; financial need may be considered; awarded by College of HSS.

Adam Shelby Holmes Trappey Memorial Scholarship (1:varies) Most outstanding incoming GR in French; awarded by Dept. of French Studies.

Clara Tucker Scholarship (1:\$1,500) Female GR in pol. sci.; awarded by Dept. of Pol. Sci.

**United Services Automobile Association Scholarship (varies:varies)** SOPH and JR Air Force cadets in the top 10 percent of Air Force class and top 25 percent of graduating class; awarded by College of HSS.

Eric Voegelin Institute Scholars Support Fund (1:varies) FT or PT postgraduate student engaged in full- or part-time research; award is for one year; awarded by the Eric Voegelin Institute.

Gary J. Weill Memorial Scholarship (1:\$500) GR in pol. sci. pursuing career in public sector; awarded by Dept. of Pol. Sci. Robert C. West Field Research Award (varies:up to \$1,500) GR in geog. & anth. conducting field work for thesis or dissertation; awarded by Dept. of Geog. & Anth.

**T. Harry Williams Fellowship** (1:varies) FT PhD student in history; purpose is to facilitate recipient's work on dissertation; awarded y the Dept. of Hist.

Ross Willis College Supply Book Store Award (1:varies) Outstanding SR UG soc. major; awarded by the Dept. of Soc. LTC John Trigg Wood, III Memorial Scholarship (varies:varies) Awarded by the Dept. of Mil. Sci.

LSU President & Mrs. M.D. Woodin-Dearing Family Scholarship (2:varies) Full-time UG majoring in history; awarded by Dept. of History.

**Paul C. Young Award (1:varies)** Recognizes the most outstanding senior in the Dept. of Psyc.; UG student with a minimum 3.5 overall GPA and 3.5 GPA in psychology; must be graduating senior in summer, fall, or spring semester following application; awarded by the Dept. of Psyc.

## **Manship School of Mass Communication**

**Patricia Wilson Baldridge Memorial Scholarship** JR or SR female majoring in mass comm.; 3.20 GPA; strong record of campus extra-curricular activities; awarded by the Manship Sch. of Mass Comm.

Luke S. Bashore Memorial Scholarship Entering FR. 4-year scholarship.

**Pete Beardsley Scholarship** Full-time mass comm. SR with concentration in journalism. Financial need is a consideration. **Albert and Virginia Bunch Scholarship** Entering FR in mass comm.; awarded by Manship Sch. of Mass Comm.

John Henderson Cade Memorial Scholarship Full-time print or broadcast communications major with 3.00 overall GPA; must display talent and enthusiasm for writing and have evidence of financial need.

Katheryn Pate Callahan Scholarship FT FR with an interest in print journalism; financial need.

Michael J. Danna TWILA Scholarship SO/ JR/SR. Journalism (print or broadcast), financial need may be a consideration. \*Margaret Dixon Mass Communication Award SR female in mass comm.; media achievement; awarded by Manship Sch. of Mass Comm.

**Robert Ewing Scholarship** Any classification in mass comm.and has 3.50 GPA; awarded by Manship Sch. of Mass Comm. **Jim Featherston Scholarship** JR in mass comm. 3.00 GPA; interest in print journalism; awarded by Manship Sch. of Mass Comm.

**Freeport-McMoRan Minority Scholarship** FR majoring in mass comm.; awarded by the Manship Sch. of Mass Comm. **\*Roberta Gilkison Falk Student Travel Grants** Meritorious mass comm. students; awarded by Manship Sch. of Mass Comm. **Guaranty Broadcasting Scholarship** Full-time mass comm. undergraduate with concentration in journalism.

\*Walter Hitesman Scholarship Mass comm. student having financial need and showing great promise as a journalist; awarded by Manship Sch. of Mass Comm.

Roland T., Jr. and Malva Haynes Huson Full time UG mass comm. major with financial need; preference given to print journalism students.

Johns Memorial Scholarship Mass comm. major with interest in agric. journalism; additional funding available for approved travel; awarded by the LSU Ag. Ctr.

**\*Benjamin F. Leeper Memorial Scholarship** JR in mass comm.; interest in photography; 3.00 GPA; awarded by Manship Sch. of Mass Comm.

Bill Lynch Memorial Scholarship FT SR with a concentration in journalism; must demonstrate financial need and academic excellence.

**Manship Scholarship** Entering FR in mass comm. with superior scholastic record; at least 26 composite score on ACT; renewable; awarded by Manship Sch. of Mass Comm.

Nancy Norris Memorial Scholarship Full-time mass comm. major with at least 3.00 overall GPA; may reapply for additional year.

**Phi Kappa Phi Outstanding Senior Award** SR with highest GPA; selected by dean, Manship Sch. of Mass Comm. **Bryan Putman Memorial Scholarship** SO/JR/SR in mass comm. with 3.00 GPA; awarded by Manship Sch. of Mass Comm to financially needy students.

Barbara Calvit Rogers Scholarship Full-time JR or SR mass comm. major.

Melvin and Charlotte Schexnayder Scholarship Entering FR with demonstrated interest in journalism; or SO or JR full-time mass comm. major in print journalism.

\*Joseph M. Silverberg Memorial Scholarship SR in news-editorial; graduate of LA high school; 3.00 GPA; awarded by Manship Sch. of Mass Comm.

Patrick J. Sorrells Scholarship SO/JR/SR mass comm major with an interest in advertising sales.

Byron St. Dizier Endowed Scholarship SR in mass. com. with demonstrated ability for and commitment to print or broadcast journalism; awarded by Manship Sch. of Mass Comm.

David Yates Memorial Award Outstanding SR male majoring in mass comm.; selected each spring.

### Fellowships

Manship Graduate Fellowship Students admitted to doctoral program in the Manship School of Mass Communication are automatically considered for this award.

**Pennington Fellowship in Health and Environmental Communication** Students admitted to doctoral program in the Manship School of Mass Communication are automatically considered for this award.

Huie-Dellmon Endowed Fellowship Students admitted to doctoral program in the Manship School of Mass Communication are automatically considered for this award.

Scripps Howard Fellowship in Media and Politics Students admitted to doctoral program in the Manship School of Mass Communication are automatically considered for this award.

Ken Uffman/Credit Bureau of Baton Rouge Endowed Fellowship Students admitted to doctoral program in the Manship School of Mass Communication are automatically considered for this award.

Bart Swanson Memorial Award Fund Students admitted to doctoral program in the Manship School of Mass Communication are automatically considered for this award.

Larry D. Smith Endowment Fund Students admitted to doctoral program in the Manship School of Mass Communication are automatically considered for this award.

**Our Lady of the Lake Regional Medical Center Fund** Students admitted to doctoral program in the Manship School of Mass Communication are automatically considered for this award.

Patricia K. Benoit and Weldon G. Cannon Graduate Research Fellowship Award Graduate students with an approved thesis or dissertation proposal may apply for this award. For information, please consult the Associate Dean for Graduate Studies and Research in the Manship School of Mass Communication.

## **College of Music & Dramatic Arts**

### Awards

**Baton Rouge Community Concert Band Award (1:varies)** Awarded to full-time music major, with a GPA of 3.0 or higher. **Lucille J. Blum Award in Music (2:varies)** Awarded to vocal and instrumental students receiving BM degree with highest GPA at graduation.

**Tiger Marching Band Award (varies:\$1,000)** Every Tiger Marching Band member eligible for cash service award at end of each fall semester; participation by audition only with minimum GPA of 2.00.

### **Scholarships**

**Gloria Anderson Scholarship for Graduate Studies in Voice & Opera (1:varies)** Awarded to GR studying voice or opera, full-time with a GPA of 3.0; awarded by the School of Music.

Joan Arceneaux Babin Scholarship (varies) Music major, min GPA 2.75 UG, 3.0 GR, and financial need

George Brown Memorial Fund (varies) UG or GR full-time students in violin performance, with a 3.0 GPA min.

Calhoun Family Scholarship (varies) Awarded to a non-Louisiana resident Theatre student by the Department of Theatre.

**Constance Knox Carroll Piano Scholarship (varies)** Full-time graduate or undergraduate student in piano or piano pedagogy, min. GPA 2.75 UG, 3.0 GR.

David Chang Memorial Scholarship (1:\$1,500) Outstanding violin student; awarded by Sch. of Music.

**Finkelstein Memorial Scholarship in Instrumental Music (varies)** Full-time UG or GR instrumental major in good standing. **Frances Greer Scholarship in Voice (varies)** UG/GR music majors in voice; awarded by the School of Music.

\*Forrest F. Griffen Memorial Scholarship (varies) Outstanding UG/GR tuba or low brass student(s); awarded by low brass faculty.

**Paul Groves Voice Scholarship (varies)** Full-time student, min GPA 3.0, and recommendation from voice faculty. **King Sollberger Educational Scholarship in Music (varies)** Full-time freshman LA or MS resident, 2.5 GPA, and financial need. May be extended for multiple years.

Frances Taylor Kurzweg Distinguished Pianists Scholarship (2:varies) GR; awarded to student by recommendation of the Director of the School of Music.

The Charles Lamar Family Scholarship (varies) Graduate student, min 3.0 GPA.

Baton Rouge Music Club, Marshall Peery Scholarship (1:varies) JR voice student, by audition; awarded by Baton Rouge Music Club.

Baton Rouge Music Club, Gertrude Bott Saucier Scholarship (1:varies) JR instrumental student, by audition.

**Opera Guild of Baton Rouge Scholarship (2:varies)** Outstanding voice student who is (or will be) enrolled in opera workshop; awarded by School of Music.

Gladys Means Loyd Scholarship (1:fee waiver for two sem.) JR/SR or female GR in theatre; academic ability and talent; awarded by theatre faculty.

Susie Chancey-O'Quinn Travel Grant Fund for MFA Directors (varies) Meritorious student directors in Theatre MFA program in need of travel funds to conferences off-campus or as apprentices on professional productions; awarded by Dept. of Theatre.

John Patterson Scholarship (varies) Outstanding bassoon student(s); awarded by the Director of the School of Music. Piano Pedagogy Scholarship (varies) UG/GR piano pedagogy major; GPA; awarded by the School of Music.

**Theodore Presser Foundation Scholarship (1:varies)** Outstanding UG in School of Music; awarded by School of Music. **William Pryor Scholarship in Jazz (varies)** Full-time undergraduate in performance, min GPA 2.75, participation and excellence in jazz.

**Earl Redding Memorial Prize in Musical Theatre (1:varies)** UG concentrating in voice; awarded by School of Music. **\*Claude L. Shaver Scholarship (1:fee waiver)** JR/SR/GR in theatre; academic ability and theatre talent; awarded by theatre faculty.

Oramay Welch Young Scholarship (varies) Awarded to gifted incoming music student.

Frank Collins Memorial Scholarship (1:varies) UG/GR concentrating in organ; awarded by School of Music.

\*Helen Libbey Cordiner Scholarship in Violin (1:varies) UG violin student; awarded by School of Music.

**\*Dr. Michael A. Galasso Memorial Scholarship (1:varies)** UG incoming violin student; awarded by School of Music. **Jack Guerry Piano Fund (varies)** Full-time student in piano performance, 3.0 GPA.

Ernest Harrison Scholarship of Excellence in Oboe & Chamber Music (varies) Full-time graduate student in oboe performance, 3.0 GPA min.

Alvin Earl Hatton Memorial Scholarship (varies) Key-board students; preference to organ; awarded by School of Music. \*L. Bruce & Mary Floy Jones Memorial Scholarship (varies) UG/GR majoring in music education; excellent academic record; awarded by School of Music.

Louise Kinney Scholarship (1:varies) Awarded to UG FT with a GPA of 3.0; awarded by the Director of the School of Music. \*Kenneth Klaus Viola Scholarship (1:varies) Student concentrating in strings in School of Music; musical and academic ability and financial need; awarded by Sch. of Music.

**\*Byron Lamb Memorial Scholarship (1:varies)** Outstanding UG/GR tuba or low brass student; awarded by School of Music. **Carleton Liddle Scholarship in Piano (varies)** Awarded by School of Music.

Mary Sue Chamber Scholarship in Music (varies) Awarded by School of Music.

William M. Newman Opera Scholarship (1:varies) Awarded to UG/GR involved in an LSU Opera production; awarded by the Director of the School of Music.

Richard F. Norem, Sr. Scholarship (1:varies) Awarded to outstanding JR, SR, or GR student concentrating in Horn; musical and academic ability; citizenship; awarded by the School of Music.

Earl W. Redding Memorial Scholarship in Musical Theater (varies) Full-time junior, senior or grad student, 2.75 GPA min, audition by Music Club of Baton Rouge

Brent Rhodes Memorial Scholarship (1:varies) Awarded to UG studying percussion.

The Richinse Endowment in Music (varies) Awarded to outstanding UG or GR students demonstrating musical and academic ability; awarded by the School of Music.

**Ronald D. Ross Scholarship** (1:varies) Awarded to UG/GR with a 3.0 GPA (UG, 3.25 (GR); musical ability; awarded by the Director of the School of Music.

Linda Brenneman Schneider Memorial Scholarship for LSU Opera (varies) full-time student in voice, min GPA 2.75 UG, 3.0 GR, and financial need.

**\*Barrett and Mae Stout Memorial Scholarship (1:varies)** SR music student; distinguished gpa in music theory and lit.; awarded by School of Music.

Everett & Jeanne Timm Flute Scholarship (varies) Graduate or undergraduate student in flute, 3.0 GPA min.

Jesse "Jeff" & Patricia Van Pelt Scholarship for Choral Music (varies) Full-time student in choral studies, 2.75 GPA UG, 3.0 GPA GR and financial need

Voice/Opera Scholarship (varies) Awarded to UG/GR studying voice or opera, FT with a GPA of 2.75 (UG), 3.0 (GR); awarded by the School of Music.

J Forrest West Scholarship in Music (varies) full-time student (soph, jr., sr, grad), 3.0 GPA and financial need

## **College of Science**

\*American Legion and American Legion Auxiliary A. R. Choppin Scholarship UG; enrolled or planning to enroll in Col. of Sci.; LA resident; participated in LA Boys' or Girls' State; awarded by Col. of Sci.

\*Ann and Clarence P. Cazalot, Jr. College of Science Undergraduate Scholarship UG full time; enrolled in the Col. of Sci.; academic excellence

\*Anna and Willie Austin Scholarship UG full time: major in math or phys.; 3.0 GPA; financial need; preference given to a female student; awarded by Col. of Sci.

\*Arthur R. Choppin Scholarship UG: SO/JR/SR; in Col. of Sci.; awarded by Col. of Sci.

Charles Edward Coates Undergraduate Honor Award UG full time; major in Col. of Sci.; academic excellence; awarded by the Col. of Sci.

\*Charles R. Egedy, Jr. Science Residential College Scholarship UG: Incoming FR in the Sci. Res. Col.; outstanding academic credentials; awarded by Col. of Sci.

\*Clarence and Ann Cazalot Geaux Teach Scholarship UG full time; in Col. of Sci.; enrolled in Geaux Teach program; awarded for JR and SR years; awarded by the Col. of Sci.

**\*Dean's Science Emerging Excellence Scholarship** UG: Incoming FR; major in Col. of Sci.; enrolled in the honors college; academic excellence; priority given to underrepresented populations; awarded by the Col. of Sci.

**\*Dennison Family Scholarship in Science** UG full time; Incoming FR; major in Col. of Sci.; 3.0 GPA; financial need; preference given to underrepresented populations; awarded by Col. of Sci.

\*Elizabeth L. Schweigerdt, M.D. Memorial Student Award UG full time JR/SR; in Col. of Sci.; 3.5 GPA; preference given to female students who plan to attend medical school; awarded by Col. of Sci.

\*Ernie Hill Memorial Scholarship UG full time; in Col. of Sci. in good academic standing; awarded by Col. of Sci.

\*Ernie Hill Scholarship in Science UG; majoring in chem. or biol. sci.; U.S. resident; awarded for academic excellence; awarded by Col. of Sci.

**\*\*Frank Jr. and Phyllis Heroy Endowed Scholarship** UG full time; Incoming FR or continuing student who has completed 30 hrs.; major in Col. of Sci. or Engr.; 3.0 GPA; awarded by Col. of Sci. and Col. of Engr. on alternating years.

\*Dr. Gene C. Robinson and Elaine G. Robinson Memorial Science Honors Scholarship UG; major in chem.; enrolled in Honors College; awarded by Col. of Sci.

**\*Houston Foot & Ankle Scholarship** UG full time; major in Col. of Sci.; financial need considered; preference given to Texas resident; pursing a career in medicine or nusring; awarded by the Col. of Sci.

\*Johnny Dardenne, Sr. Texas Tiger Tournament Scholarship UG; major in Col. of Sci.; academic ability; awarded by Col. of Sci.

**\*Pat Bodin Geaux Teach Early Offer Endowed Scholarship** UG full time; major in Col. of Sci.; enrolled in Geaux Teach program; minimum 3.0 GPA; offered as Incoming FR to be awarded during JR and SR years; awarded by the Col. of Sci.

\*\*Peter Burland Endowed Scholarship UG: SO/JR/SR; major in chem. or math; 3.0 GPA; nominated by Col. of Sci.; awarded by Alumni Assoc.\*Ron and Mary Neal Science Honors Scholarship UG; major in Col. of Sci.; enrolled in Honors College; awarded by Col. of Sci.

\*Scott and Susan Brodie Science Honors Scholarship UG; major in Col. of Sci.; enrolled in Honors College; awarded by Col. of Sci.

Tiger Athletic Foundation Scholarship UG; in Col. of Sci.; academic ability; awarded by Col. of Sci.

**\*Willie Belle Shockley Scholarship** UG full time; math or phys. major in Col. of Sci.; 3.0 GPA; preference given to a female student; financial need; awarded by Col. of Sci.

**\*Winnie Wong-Ng Annual Science Honors Scholarship** UG full time; major in Col. of Sci. with preference for chem. major; 3.5 GPA; academic excellence; enrolled in the Honors College; awarded by the Col. of Sci.

## **College of Science-BIOL**

**\*Brandon J. Latiolais Memorial Scholarship** UG:SR; major in biol. sci.; premedical student; minimum 3.5 GPA; awarded by Col. of Sci.

**\*\*Michael F. Ippolito Memorial Endowed Scholarship** UG; major in biol. sci. or marine biology; minimum 3.0 GPA; awarded by Alumni Assoc.

\*Virginia R. Williams Memorial Scholarship UG; preference given to an outstanding female major in biochem.; 3.0 GPA; awarded by Col. of Sci.

**\*William A. Pryor Scholarship in Biological Sciences** UG; major in biochem.; awarded for academic excellence; awarded by Col. of Sci.

### **College of Science-CHEM**

\*ACS-Hach Land Grant Scholars Scholarship UG; major in chem.; concentration in secondary education; 3.0 GPA; awarded by Dept. of Chem.

\*Dr. James E. Coleman Chemistry Scholarship major in chem.; 3.0 GPA; awarded by Col. of Sci.

\*Copolymer Foundation Endowed Scholarship UG full time; major in chem.; awarded by Col. of Sci.

I. H. Gottlieb Memorial Scholarship UG; major in chem.; LA resident; awarded by Col. of Sci.

\*Patrick F. Taylor Scholarship in Chemistry UG; major in chem.; academic ability; financial need; awarded by Dept. of Chem.

\*William A. Pryor Scholarship for Student Affiliates of the American Chemical Society (SAACS) UG; major in chem.; member of LSU SAACS organization; awarded by Col. of Sci.

\*W. W. Tison Memorial Scholarship UG; major in or planning to major in chem.; awarded by Col. of Sci.

## **College of Science -GEOLP**

\*Adam Sturlese Memorial Scholarship Major in geol.; academic ability; U.S. citizen; awarded by Dept. of Geol. & Geophys. \*Ben Stanley Geology Field Camp Scholarship UG full time; attending the LSU Geology Field Camp; academic achievement; financial need; awarded by Dept. of Geol. & Geophys.

\*Billy and Ann Harrison Field Camp Scholarship UG; major in geol.; for use at summer camp; awarded by Dept. of Geol. & Geophys.

\*Candace L. Hays and Ronnie D. Johnson Scholarship UG full time; major in geol.; female; minority; academic ability; attending field camp; awarded by Dept. of Geol. & Geophys.

\*Charles L. Jones Scholarship in Geology & Geophysics UG; major in geol; academic ability; financial need; U.S. citizen; awarded by Patrick F. Taylor Foundation on recommendation.

\*Chevron Energy Leaders Graduate Scholarship in Geology Fund GR; GRE score of above 300; energy career interest; financial need; underrepresented population preferred

\*Debra & James Anderson Superior Graduate Scholarship GR: MS; major in geol.

**\*Dr. & Mrs. H. V. Howe Memorial Scholarship** UG/GR; major in geol.; academic ability; awarded by Dept. of Geol. & Geophys.

**\*Dr. A. E. ''Sandy'' Sandberg Scholarship** UG; major in geol.; academic ability; awarded by Dept. of Geol. & Geophys. **\*Dr. Joe Hazel Memorial Student Award** UG; major in geol.; awarded by Dept. of Geol. & Geophys.

\*George N. May Memorial Scholarship UG:FR; major in geol.; academic ability; financial need; awarded by Dept of Geol. & Geophys.

\*Geology General Scholarship UG/GR full time; major in geol.; awarded by Dept. of Geol. & Geophys.

**\*H. V. Andersen Endowed Scholarship** UG:JR/SR; major in geol.; academic ability; awarded by Dept. of Geol. & Geophys. **\*Harriet Cameron Belchic Memorial Scholarship** UG; major in geol.; academic ability; financial need; geol. field camp; preference given to women with 3.0 GPA; awarded by Dept. of Geol. & Geophys.

\*Houston Energy, L.P. Graduate Student Scholarship GR:MS/PhD; major in geol.

**\*\*John J. Capdevielle Endowed Scholarship** UG:SR full time; major in geol.; LA resident, academic ability; nominated by Dept. of Geol. & Geophys.; awarded by LSU Alumni Association[KTL1]

\*John O' Keefe Barry Endowed Scholarship UG; major in geol.; LA resident; academic ability; awarded by Dept. of Geol. & Geophys.

\*John T. Mestayer Memorial Scholarship UG:JR/SR; major in geol.; academic ability; financial need; geol. field camp; awarded by Dept. of Geol. & Geophys.

\*Laura Cordell & John P "Jay" Moffitt Distinguished Fellowship GR:MS; major in geol.

\*Laurice Sistrunk Scholarship UG:SO full time; major in geol. or pet. engr.; LA resident; academic ability; awarded by Dept. of Geol. & Geophys.

\*Leo W. Hough Geology Scholarship UG full time; major in geol.; academic ability; financial need; awarded by Dept. of Geol. & Geophys.

\*Major J. S. Slack, Jr. Memorial Scholarship UG; major in geol. or pet. engr.; LA resident; academic ability; awarded by Dept. of Geol. & Geophys.

\*Marathon Oil Company Geology Scholarship UG/GR; major in geol.; awarded by Dept. of Geol. & Geophys.

\*Mary Jo Klosterman Superior Graduate Student Scholarship GR:MS/PhD; major in geol.

\*Mary Jo Klosterman Superior Graduate Student Scholarship #2 GR:MS/PhD; major in geol.

\*Masters of Geoscience Program Underrepresented Students Support Fund GR/MS; minority student; awarded by Dept. of Geol. & Geophys

**\*Monica Donellan Memorial Scholarship** UG:JR/SR; major in geol.; financial need; geol. field camp; awarded by Dept. of Geol. & Geophys.

**\*\*Mr. & Mrs. W. D. Millican Scholarship** UG:FR; major in geol.; financial need; 2.5 GPA; may be renewed for four yrs.; nominated by Dept. of Geol. & Geophys.; awarded by LSU Alumni Association.

**New Orleans Geological Society Jules and Olga Braunstein Memorial** Major in geol.; academic ability; nominated by Dept. of Geol. & Geophys.; awarded by N.O. Geological Society.

**New Orleans Geological Society Lee Meltzer Memorial** GR; major in geol.; academic ability; nominated by Dept. of Geol. & Geophys.; awarded by N.O. Geological Society.

\*Patrick F. Taylor Scholarship in Geology and Geophysics UG; major in geol.; U.S. citizen; academic ability; financial need; awarded by Patrick F. Taylor Foundation on recommendation; awarded by Dept. of Geol. & Geophys.

**\*Prof. W. A. van den Bold LSU Geology Field Camp Scholarship** UG full time; major in geol.; attending the LSU Geology Field Camp; academic achievement; financial need; awarded by Dept. of Geol. & Geophys.

\*Sid and Peggy Bonner Scholarship UG:SO or higher; major in geol.; minimum 3.0 GPA; awarded by Dept. of Geol. & Geophys.

### **College of Science-MATH**

**\*\*Demarcus D. Smith, III Undergraduate Scholarships** UG full time; minimum 3.0 GPA; awarded by Dept. of Math **\*Dr. Pasquale Porcelli Math Fund** UG; One award for SO math majors with credit in MATH 1550 and 1552; two awards for JR math majors with at least 19 hours of mathematics numbered 1550 or above; awarded by Dept. of Math.

### **College of Science-PHYS**

**\*Dr. R. Greg Hussey Scholarship for Excellence in Physics** UG; major in phys.; selected by Dept. of Phys. & Astr.; awarded by the Col. of Sci.

# **University College**

### **Scholarships for New Freshmen**

**\*Vincent E. Cangelosi Scholarship (varies)** Entering FR graduated in top 15 percent of high school class with a high school GPA of 3.00 or higher and SAT score of 1100 or above or ACT composite score of 25 or above; student must be enrolled at LSU full-time; non-renewable. Financial need considered.

**\*Delise-Bordelon Family Scholarship (varies)** Full-time FR from single-parent family. Preference given to student whose parent is deceased; student must demonstrate financial need. Student must be enrolled at LSU full-time; and be in good academic standing; non-renewable.

\*King-Sollberger Endowed Scholarship (varies) Entering FR who is resident of LA or MS with at least 2.5 GPA; financial need considered; student must be enrolled at LSU full-time; non-renewable.

\*Marjorie Longsdorf Scholarship (varies) Entering FR who is a graduate of Baton Rouge Magnet High School; plans to enter the School of Education. Student must be enrolled full-time at LSU.

\*Anthony J. Losavio Scholarship (varies) FR with composite ACT of 22-28; must be a graduate of a LA high school. May not hold another scholarship other than TOPS; may have grant, financial aid, and/or job. Financial need, academic ability, leadership, and responsibility are considerations. Student must be enrolled at LSU full-time; non-renewable.

\*Josephine R. Losavio Scholarship (varies) FR with composite ACT of 22-28; must be a graduate of LA high school. May not hold another scholarship other than TOPS; may have grant, financial aid, and/or job. Financial need, academic ability, leadership, and responsibility are considerations. Student must be enrolled at LSU full-time; non-renewable.

## **Scholarships for Continuing Students**

\*Lonnie J. and Carol S. Dore Family Scholarship (varies) Full-time undergraduate student enrolled in University College with a minimum of 3.0 GPA. Financial need may be a consideration.

**\*Dr. Gerald L. and Gayle W. Foret Scholarship (varies)** Full-time undergraduate student with at least a 3.0 GPA, enrolled in University College; preference given to freshman; financial need considered.

\*Elayn Hunt Memorial Scholarship (varies) Full-time freshman female student with a minimum of 15 credit hours and at least 2.00 GPA, enrolled in University College. Student must be a Louisiana high school graduate; financial need considered.

**\*Dr. Mahlon P. Poche, Jr. Scholarship** (varies) Full-time undergraduate student enrolled in University College with a minimum of 15 hours and at least a 3.0 GPA and a member in good standing of the LSU Tiger Band.

**\*Don Redden Sophomore Endowed Scholarship (varies)** Full-time undergraduate student with a minimum of 15 hours and at least a 3.5 GPA enrolled in University College; must be a U.S. citizen and can hold no other scholarships, excluding TOPS. **\*Ryan Paul Shannon Memorial Scholarship (varies)** Full-time undergraduate student enrolled in Allied Health who has at least a 3.00 GPA and an ACT score of 23 or above; first preference to students from St. Charles, Orleans, Jefferson or St. John the Baptist Parishes; financial need considered.

\*Glenda W. Streva Allied Health Scholarship (varies) Full-time undergraduate student enrolled in pre-nursing who has at least a 2.0 GPA; first preference to a student from St. Mary Parish.

**\*Tiger Athletic Foundation Scholarship (\$1,000)** Full-time undergraduate student with a minimum of 15 hours and at least 3.5 GPA, enrolled in University College; must be U.S. citizen and can hold no other scholarship, excluding TOPS.

**\*Tiger Athletic Foundation University College Sophomore Award (varies)** Full-time freshman student with a minimum of 15 hours and at least a 3.5 GPA, enrolled in University College; must be U.S. citizen and can hold no other scholarship, excluding TOPS.

**\*University College Athletic Department Endowed Scholarship (varies)** Full-time freshman student with a composite ACT score between 22-28 and a minimum high school GPA of 3.0, must be a graduate of a Louisiana high school; OR Full-time undergraduate student enrolled in University College with a minimum of GPA of 3.0, preference may be given to students determined as "Bengal Legacy Scholarships for Nonresident Sons and Daughters of LSU Graduates" in accordance with LSU policies and procedures; OR participants in one of University College's programs: McNair Research Scholars, Summer Scholars, and Student Support Services. Financial need may be a consideration; students with any four-year institutional award from LSU will not be eligible, excluding TOPS.

**\*University College General Scholarship (varies)** Full-time undergraduate student enrolled in University College; completion of a minimum of 15 credit hours earned at LSU (excluding advanced standing credit); 3.5 or higher undergraduate cumulative GPA; pursuit of undergraduate degree to be earned at LSU; U.S. citizen; financial need; campus extracurricular involvement; no other scholarships excluding TOPS.

\*Dabadie Family Scholarship (varies) Full-time undergraduate student enrolled at LSU in a

Science/Technology/Engineering/Math-related discipline and maintaining a 3.0 GPA; honorably discharged veteran of the United States Armed Forces; Financial need considered.

**\*Dr. Christopher M. and Julie M. Foret Scholarship (varies)** Full-time student at LSU; completed a minimum of 15 credit hours and have a minimum 3.0 overall GPA; Must be a Washington Parish resident, with preference given to graduates of Bowling Green, Franklinton, Mt. Hermon and Pine Junior/Senior High Schools. Preference given to a freshman. Financial need considered. Students with four-year institutional award from LSU, excluding TOPS, are not eligible.

## **Other Scholarships and Awards**

\*Albert L. Clary Memorial Scholarship (varies) Awarded to EF alumnus of Louisiana Boys State or Girls State; financial need must be considered; awarded by FA&S Cmte.

\*Alexander P. Tureaud, Sr., Chapter Endowed Scholarship (varies) Awarded to EF; minimum 3.00 GPA and 18 ACT; US resident; preference to siblings of alumni; awarded by FA&S Cmte.

\*Anna R. Meyer Memorial Scholarship (1:varies) Awarded to UG from Ouachita Parish; awarded by FA&S Cmte. \*Ben Mayer Scholarship (varies:\$350) LA resident with demonstrated academic ability and financial need; awarded by FA&S Cmte.

\*Bernice and R. J. Stoker Scholarship (varies:\$1,000) Awarded to UG; preference for graduates from Sabine or Caddo Parishes; financial need may considered; awarded by FA&S Cmte.

**\*Bingham Cushman Stewart Scholarship (varies)** Awarded to UG based on academic credentials; preference to family of Boh Bros. Construction Co. employees; awarded by FA&S Cmte.

**Board of Supervisors Scholarship (varies)** Awarded by individual members of the LSU Board of Supervisors for UG in the amount of the UG tuition and GR/professional students in the amount of GR tuition. A limited number of nonresident fee exemptions are available to qualified undergraduate students. Applications available at www.lsusystem.lsu.edu.

**Caffee, Davenport, and Wilkinson Scholarship** (varies) Awarded to SO, JR, or SR; minimum 3.0 GPA; awarded by FA&S Cmte.

\*Campus Club of LSU Scholarship (varies) Awarded to children or grandchilden of dues paying members of LSU Campus Club; minimum 3.0 GPA; awarded by FA&S Cmte.

\*Captain John Adrian Martin Memorial Scholarship (1:\$1,000) Awarded to EF; graduate of Woodlawn High School (B.R., LA); andidates recommended by High School principal; awarded by FA&S Cmte.

\*Carolyn H. Hargrave Scholarship (varies:\$1,000) Awarded to UG; financial need may be considered; awarded by FA&S Cmte.

\*Cary J. Richardson Memorial Fund (varies) Awarded to EF; awarded by FA&S Cmte.

**Charles B. Sherrouse Scholarship (1:varies)** Awarded to UG; graduate of Franklin Parish high school; financial need shall be considered; awarded by FA&S Cmte.

**Chep Morrison Memorial Scholarship** (1:\$950) Awarded to UG; major in pre-law; minimum 3.0 GPA; financial need shall be considered; awarded by FA&S Cmte.

\*Chick-Fil-A Bowl Endowed Scholarship (varies) Awarded to UG; preference to graduate of Play It Smart Program in Atlanta, Georgia; awarded by FA&S Cmte.

\*Christin Claire Cosby Scholarship (1:varies) Awarded to graduate of Live Oak high school; minimum 2.8 GPA; financial need may be considered; awarded by FA&S Cmte.

Clarence P. Dunbar Scholarship (2:\$1,200) Awarded to EF; graduate of a St. Landry Parish high school; awarded by assorted Cmte.

\*Collis B. Temple, Sr. Endowed Scholarship (1:varies) Awarded to UG; financial need shall be considered; preference to minority students; awarded by FA&S Cmte.

**\*Dallas/Ft. Worth LSU Alumni Chapter Scholarship (1:\$1,000)** Awarded to UG resident of D/FW; minimum 3.00 GPA and 23 ACT; financial need may be considered; awarded by FA&S Cmte.

**Dallas Legacy Award (1:\$1,500)** Awarded to UG; graduate of D/FW area high school; minimum 3.00 GPA and 26 ACT; dependent of Alumni Association of Dallas member; awarded by FA&S Cmte.

\*Danton Whitley Scholarship (1:\$1,000) Awarded to SO, JR, or SR; minimum 3.0 GPA; financial need shall be considered; awarded by FA&S Cmte.

**\*Dean Carolyn Collins Distinguished Scholar and Citizenship Scholarship (varies)** Awarded to FR or SO; minority student demonstrating academic excellence and community service; 3.3 GPA; preference to residents; awarded by assorted cmte.

**\*Delta Tau Chapter of Alpha Phi Fraternity Award (varies)** Awarded to SO, JR, or SR; minimum 3.00 GPA; preference for members, alumnae, legacies, or relatives; financial need shall be considered; awarded by FA&S Cmte.

**\*Dennison Family Scholarship (varies)** Awarded to EF; must be enrolled in college of engineering, science, or the E. J. Ourso College of Business; minimum 3.0 GPA; preference to an under-represented group, must be a recipient of the federal Pell Grant, financial need shall be considered; awarded by FA&S Cmte.

**\*Donald W. Keller Family Scholarship (varies:\$1,000)** Awarded to UG; resident of TX; financial need shall be considered; awarded by FA&S Cmte.

**\*Dr. Ben H. and Clare Roy Thibodeaux Scholarship (varies:\$1,000)** Awarded to UG from high schools in certain parishes; financial need may be considered; awarded by FA&S Cmte.

**\*Dr. Charles Henry Voss Memorial Scholarship (1:varies)** Awarded to UG; LA resident; awarded by FA&S Cmte. **\*Fannie Guy Memorial Scholarship (varies)** Awarded to UG; graduate of DeSoto Parish high school; awarded by FA&S Cmte.

**\*Farmer's Grain Terminal Scholarship (1:\$2,000)** Awarded to EF; minimum 3.0 GPA; graduate of high school from certain parishes; financial need may be considered; awarded by FA&S Cmte.

\*Foster Jones Scholarship (1:varies) Awarded to EF; graduate of a Richland Parish high school; outstanding ACT scores and academic ability; selected by LSU Foundation Cmnte.

\*Fred Fenn Endwoed Scholarship (varies) Awarded to EF; outstanding GPA, ACT scores, and class rank; awarded by FA&S Cmte.

\*General Gordon Ingersoll Scholarshp (varies:\$1,000) Awarded to UG; minimum 3.0 GPA; financial need shall be considered; awarded by FA&S Cmte.

**George F. Baumann Estate Scholarship (varies)** Awarded to UG; financial need shall be considered; awarded by FA&S Cmte. **\*George W. Hollinshead Scholarship (varies)** Awarded to UG; preference to graduates of Avoyelles Parish in agriculture or education; financial need shall be considered; awarded by FA&S Cmte.

\*Georgia Pacific Foundation/Port Hudson Scholarship (1:\$1,500) Awarded to EF; graduate of Zachary High School; major in engineering; awarded by FA&S Cmte.

Gertrude Bott Saucier Scholarship (varies:\$800) Awarded to UG; financial need shall be considered; awarded by FA&S Cmte.

\*Gillis W. Long Memorial Scholarship (1:varies) Awarded to UG; LA resident; major in pre-law, pol. sci., or government; financial need shall be considered; awarded by FA&S Cmte.

\*Harry and Edna Tate Halbedel Trust Scholarship (varies: \$500) Awarded to SO, JR, or SR; financial need shall be considered; shows high level of leadership/service; awarded by FA&S Cmte.

Harry and Ruth Henderlite Scholarship (varies) Awarded to UG; financial need shall be considered; awarded by FA&S Cmte. \*J. Leon Clark Scholarship (varies) Awarded to UG or GRAD; financial need shall be considered; minimum 2.5 GPA; nominated by Baptist Collegiate Ministry and awarded by FA&S Cmte.

\*Jacob R. Bankston Scholarship (varies) Awarded to UG; physical/systemic disability; financial need may be considered; application from Disability Services; awarded by FA&S Cmte.

\*James M. Koenecke Memorial Scholarship (varies) Awarded to EF; outstanding academic and leadership qualities; minimum 3.25 GPA and 25 ACT; awarded by FA&S Cmte.

\*James S. and Paula K. McHugh (varies) Awarded to GR; minimum 3.0 GPA; US citizen; financial need may be considered; awarded by FA&S Cmte.

\*Jeffrey Bouton Memorial Graduate Award (varies) Awarded to GR; majoring in Forestry, Herpathalogy, Oceanography, Recreational Therapy, or Veterinary Medicine; awarded by FA&S Cmte.

\*John Boyd and William Terry Mitchell Scholarship (varies) Awarded to UG; must be from specified state; financial need shall be considered; awarded by FA&S Cmte.

\*Joseph A. Kleinpeter Scholarship for Engineering and Science (1:varies) Awarded to UG; majoring in engineering or science/mathematics; minimum 3.00 GPA and 23 ACT; preference for graduates of Amite High School, Oak Forest Academy, and residents of Tangipahoa Parish; awarded by FA&S Cmte.

\*Judge D. Irvin Couvillion Scholarship (varies) Awarded to UG; minimum 2.0 GPA; financial need shall be considered; awarded by FA&S Cmte.

Joseph F. Dohrer Memorial Scholarship (1:varies) Awarded to EF; financial need shall be considered; awarded by FA&S Cmte.

Knights of Pythias Memorial Scholarship (1:\$1,000) Awarded to EF; minimum 3.0 GPA; financial need shall be considered; awarded by FA&S Cmte.

\*Landon Farris Von Kanel Endowed Scholarship (varies) Awarded to EF; minimum 2.5 GPA; preference to residents of the Cayman Islands and MS; awarded by FA&S Cmte.

**Legislative Act 353 of the 1974 Regular Session (varies)** Awarded to UG; dependents of law enforcement officers or fire fighters killed or permanently disabled in the line of duty in Louisiana (who register as full-time students) receive exemptions from tuition, on-campus room and board, and book allowances. Applications available at www.lsu.edu/scholarships.

\*Leon Guerin-Al Evans-Al Girior Memorial Scholarship (4:varies) Awarded to UG; awarded by FA&S Cmte.

\*Leslie G. Gruber Scholarship (1:\$1,000) Awarded to EF; graduate of TN high school; awarded by FA&S Cmte.

\*LSU Foundation General Scholarship Fund (varies) Awarded to UG; minimum 3.0 GPA; awarded by FA&S Cmte.

\*LSU Foundation Merit Scholarship (varies) Awarded to UG; minimum 3.0 GPA; awarded by FA&S Cmte. \*LSU Foundation Strategic Scholarship (varies) Awarded to UG; minimum 3.0 GPA; targets strategic areas of low enrollment; awarded by FA&S Cmte.

\*LSU Foundation Opportunity Scholarship (varies) Awarded to UG; financial need must be considered; awarded by FA&S Cmte.

**LSU Kiwanis Club Scholarship (1:\$1,000)** Awarded to UG; dependent of LSU staff member; minimum 30 hours earned and 2.50 GPA; awarded by FA&S Cmte.

\*LSU Staff Senate Scholarship (1:\$500) Awarded to UG; dependent of LSU current or retired staff member; minimum 24 hours earned and 2.50 GPA; awarded by FA&S Cmte.

\*Marilu Remolina Scholarship (1:\$500) Awarded to UG; foreign born or the child of foreign born parents; international students are not eligible; student must file FAFSA; financial need shall be considered; awarded by FA&S Cmte.

\*Martin Foundation Scholarship (varies:\$1,000) Awarded to UG; minimum 3.0 GPA and 23 ACT; major in forestry, mechanical engineering, or industrial engineering; preference to family of Martin Lumber Co. employees; awarded by FA&S Cmte.

\*Mattye F. McGivney Memorial Scholarship (varies: \$1,000) Awarded to SO, JR, or SR; LA resident; financial need shall be considered; awarded by FA&S Cmte.

\*Mike McNeal Memorial Scholarship (1:\$500) Awarded to EF; graduate of Tara High School; major in Business; minimum 3.3 GPA; awarded by FA&S Cmte.

**\*Olson Family Endowed Scholarship (varies)** Awarded to UG; minimum 3.0 GPA; LA resident; financial need shall be considered; awarded by FA&S Cmte.

**\*Pam Kinamore Memorial Scholarship (varies)** Awarded to UG; major in Art & Design; minimum 3.00 GPA; financial need shall be considered; awarded by FA&S Cmte.

**\*Philip J. Barbier Memorial Scholarship (varies)** Awarded to UG; minimum 3.0 GPA; financial need shall be considered; awarded by FA&S Cmte.

**\*Roland Kizer Student Body President Scholarship** (1:\$500) Awarded to student body president as of October 1st; awarded by FA&S Cmte.

**\*Rose Long McFarland Scholarship (varies)** Awarded to JR or SR; major in Science; financial need may be considered; preference to single mothers; awarded by FA&S Cmte.

**Police Jury Association of LA Award (1:\$500)** Awarded to JR; LA resident; major in pol. sci., government, or education; awarded by Police Jury Association of LA, Inc.

**\*Sigma Chi Endowed Scholarship (varies)** Awarded to UG; member of LSU Sigma Chi fraternity; minimum 2. 5 GPA; demonstrated leadership ability and personal character; awarded by FA&S Cmte.

\*Skip Bertman Leadership Scholarship (varies:\$1,000) Awarded to EF; minimum 2.75 GPA; demonstrated outstanding leadership ability; financial need may be considered; awarded by FA&S Cmte.

\*Sports Diva Scholarshp (varies) Awarded to UG; preference to first generation and female students; financial need shall be considered; awarded by FA&S Cmte.

**\*Susan Wang Redfearn Memorial Award (varies)** Awarded to UG; participate in Campus Crusade for Christ, Chapel on Campus College Ministry, or Navigators; financial need shall be considered; awarded by FA&S Cmte.

### **Graduate Scholarships and Awards**

For additional information on scholarships and awards for students in the Graduate School or professional schools, see the publications issued by those divisions.

### School of Library and Information Science

\*Jimmy H. Hoover Scholarship (1) GR major in LIS; academic ability; awarded by SLIS.

Louisiana Library Association Scholarship (1) GR major in LIS; academic ability; awarded by LA Library Association.

\*Florinell F. Morton Scholarship (1) GR major in LIS; academic ability; awarded by SLIS.

\*Nettie Puckett Wilson Scholarship (1) GR major in LIS; academic ability; awarded by SLIS.

\*Mary Marguerite Hanchey Memorial Fellowship (1) GR major in LIS; academic ability; awarded by SLIS.

\*Sidone Lawrence Walker Scholarship (1) GR major in LIS; academic ability; awarded by SLIS.

\*Lewis Mack Fellowship (1) GR major in LIS; academic ability; awarded by SLIS.

Mary Moore Mitchell Scholarship (1) GR major in LIS; academic ability; part-time student; awarded by LA Library Association.

\*Richard W. Peck Scholarship (1) GR major in LIS academic ability; interest in youth services; awarded by SLIS.

\*Ollie H. Burns Scholarship (1) GR major in LIS; academic ability; full-time or part-time student; first preference shall be given to minority student; awarded by SLIS.

Donald D. Foos Scholarship (1) GR major in LIS; academic ability; awarded by SLIS.

\*Charles Patterson Scholarship (1) GR major in LIS; academic ability; full-time or part-time student; pursuing a CLIS degree or other post-master's degree program as the School may offer in the future; awarded by SLIS.

\*Friends of the Lafayette Parish Public Library Fellowship (1) GR major in LIS; academic ability; resident of Lafayette Parish; awarded by SLIS.

\*H. W. Wilson Scholarship (1) GR major in LIS; academic ability; part-time student; awarded by SLIS.

Louisiana Library Association Trustees Section Fellowship (1) GR major in LIS; academic ability; LA resident interested in public libraries; awarded by SLIS.

\*John and Hester Slocum Fellowship (1) GR major in LIS; academic ability; resident of New Orleans area; awarded by SLIS.

# **Federal Financial Aid Programs**

LSU administers all Title IV federal programs which are based on a student's demonstrated financial need. Funds received from the federal programs help students to cover school expenses, including tuition and fees, room and board, books and supplies, and transportation. All such programs are subject to regulations authorized by the United States Department of Education, as well as university policies consistent with these federal regulations and are subject to change.

Detailed information on these programs can be found on the Internet at www.lsu.edu/financialaid.

### **Eligibility for Financial Aid**

All students must meet the following criteria to apply for Title IV federal aid-grants, work study, and loans:

- Be enrolled as a regular student in a degree-granting or certificate program.
- Be a U.S. citizen or eligible noncitizen (permanent resident).
- Be enrolled at least half-time (most programs—regular semesters: undergraduate, six hours; graduate, five hours;
- Not be in default on prior student loans or owe a refund on a federal grant.
- Be making satisfactory academic progress as described in the section, *Satisfactory Academic Progress for Purposes of Financial Aid Eligibility*.

### **Application for Federal Financial Aid**

Students who wish to apply for the programs described in this section should file either the *Free Application for Federal Student Aid (FAFSA) or the Renewal Application.* The FAFSA is available online at www.fafsa.gov. It is recommended that the application be filed no later than March 1 for summer or fall enrollment or October 1 for spring enrollment. These applications cover aid awarded for the upcoming academic year (beginning with the summer term) and application must be made each year.

Once the Office of Enrollment Management has received your FAFSA, additional documentation will be requested through your myLSU accounts. To receive a loan for the academic year, the deadline to return all required documents is the first business day of May. To receive a semester only loan, the deadline to return all required documents is:

- Summer-only loans—July 15th
- Fall-only loans—First business day of December
- Spring-only loans—First business day of May

For consideration for Pell grants only, documents may be accepted later than the stated dates. Check with the Financial Aid Office for deadlines.

Once all documents are processed, an award letter will be sent via the student's myLSU account to allow them to accept or decline their aid. The deadline for a student to accept a loan is:

- Semester-only loans—First day of final exams for that semester
- Academic-year loans (summer/fall/spring or fall/spring loans)—First day of spring semester final exams

Please note that students will not receive an award notice until all verification documents have been properly submitted and processed. Documents submitted after the stated deadlines may not result in an award. Students submitting documents after the stated deadlines may jeopardize their opportunity to receive funding for that academic year.

For additional information on these programs, as well as, information regarding how financial need is determined and an LSU student's cost of attendance, visit www.lsu.edu/financialaid.

#### Grants

- *Federal Pell Grants*—Undergraduate students working toward their first degree are eligible for consideration. Eligibility is determined by a federal need analysis formula.
- *Federal Supplemental Educational Opportunity Grants*—Undergraduate students working toward their first degree, who show exceptional financial need may qualify. Funds are limited.

- *Louisiana Go Grants*—Undergraduate students working toward their first degree, who demonstrate financial need not exceeding 60% of need based eligibility after deducting their Estimated Family Contribution (EFC) and all federal/state/institutional grant. Funds are limited.
- *Teacher Education Assistance for College and Higher Education Grant*—Undergraduate and Graduate students enrolled in an eligible program, maintain a 3.25 GPA, and commit to teach in high-need filed, at a low-income school, for at least four years within eight years of completing the program for which the grant was awarded.

#### **Campus-Based Programs**

- *Federal Perkins Loans*—Low-interest (5 percent) loans made by LSU and repaid to LSU. Interest is subsidized while the student is in school. Students must show financial need and be enrolled at least half-time. Deferment and cancellation privileges are available under certain circumstances. Funds are limited.
- *Federal Work-Study Program*—Campus jobs provided to full-time students, not on academic probation, who show financial need. Students earn an hourly wage (beginning at minimum wage) and are paid every two weeks. Students who are awarded Federal Work-Study employment have the option of choosing job sites designated as community service agencies. Funds are limited.

### William D. Ford Federal Direct Loans

LSU participates in the following Loan Programs:

- *Direct Subsidized Stafford Loans*—Based on financial need, the interest on this loan does not accrue while the student is in school. Payments are deferred until six months after the student ceases being enrolled on at least a half-time basis.
- *Direct Unsubsidized Stafford Loans*—This program enables students to borrow, regardless of need. Interest will accrue on this loan while the student is enrolled, and may be paid or capitalized as agreed by the borrower and the lender.
- Direct Parent Loan for Undergraduate Students (PLUS)—This program allows parents of dependent students to borrow per year up to the cost of education, less any other aid. The repayment period begins on the day the loan is disbursed, and the first installment to the DOE is due within 60 days of that date. This loan is not based on need.
- Direct Graduate PLUS Loans (GRAD PLUS)—This program is a loan for graduate and professional students that are taken in their own name. This loan will give these students a valuable federal loan alternative to private loans. Just like parent borrowers, these students will be able to borrow under the PLUS program up to the cost of education less other aid received. In addition, these borrowers will have to meet the same credit eligibility requirements that apply to parent borrowers.

Loan disbursements normally occur the week prior to the start of classes. Depending on the award package, loans will be disbursed accordingly: (1) summer, fall, and spring loans will occur in three equal disbursements; (2) fall and spring loans will occur in two equal disbursements; and (3) semester only loans will disburse in one disbursement at the start of the semester. All federal aid funds are applied directly to your student account in the Office of Bursar Operations. If the amount credited to your account is greater than the amount you owe to the university, you will be issued a refund for the credit balance. Allow up to seven business days for the Office of Bursar Operations to process a direct deposit or refund check.

Students borrowing under the William D. Ford Direct Loan Program described above, except Parent PLUS, are required by federal regulation to have an *entrance counseling session* before they receive their first disbursement at LSU. This brief online session explains important information about borrowing student loans and money management during school. When a student borrower graduates, resigns, or otherwise ceases to be enrolled on at least a half-time basis at LSU, he/she is required to attend an *exit counseling session*. The online session explains what the borrower should expect upon entering loan repayment. Entrance counseling can be accomplished at www.studentloans.gov. Exit counseling can be accomplished at www.sludentloans.gov. For additional information on a student's rights and responsibilities regarding federal financial aid, refer to www.lsu.edu/financialaid to view *The Guide to Federal Student Aid* published by the U.S. Department of Education.

### **Loan Cancellation**

The deadlines for a student (or parent in the case of a PLUS loan) to cancel one or more of their loans or disbursements of their loan(s), is as follows:

- Academic year loans: 1<sup>st</sup> business day of May
- Summer only loans: July 15th
- Fall only loans: 1<sup>st</sup> business day of December
- Spring only loans: 1<sup>st</sup> business day of May

Contact the Office of Enrollment Management for information on how to complete this process. Exceptions to the stated deadlines will be made on a case-by-case basis.

### Satisfactory Academic Progress for Purposes of Financial Aid Eligibility

Undergraduate Students

In order to receive financial aid, a student must be making "satisfactory academic progress. For the purpose of participating in any of the federal student aid programs, the LSU Office of Enrollment Management has established the following policy for determining satisfactory academic progress for undergraduate students:

- Students must have a 2.0 cumulative GPA at the end of each fall, spring, and summer semester.
- Students must earn at least 75 percent of all hours attempted.
- Students may only receive financial aid for a maximum of 160 attempted credit hours (215 for a five year curricula).
- Students pursuing multiple bachelor's degrees may only receive financial aid for a maximum timeframe of 133 percent of the minimum hours to complete the degree minus the hours completed as general education courses.

If these established criteria are not met at the end of the fall, spring, or summer semesters, students may seek to appeal if mitigating circumstances affected their academic performance. For a student to re-establish eligibility they must either (1) receive an approved appeal or (2) meet the Satisfactory Academic Progress requirements at the end of the next semester in which they enroll. The complete Satisfactory Academic Progress policy may be viewed at www.lsu.edu/financialaid.

#### Graduate/Professional Students

For the purpose of participating in any of the federal student aid programs, the LSU Office of Enrollment Management has established the following policy for determining satisfactory progress for graduate and professional students:

Graduate Students:

- Students must have a 3.0 cumulative GPA at the end of each fall, spring, and summer semester.
- Students must earn at least 75 percent of all hours attempted.
- Students may only receive financial aid for a maximum of 40 attempted credit hours.
- Students pursuing multiple master's degrees will be allowed an additional 133 percent of the published length of the academic program.

• Doctorate students may receive financial aid for a maximum of seven years from the first semester of their program. Professional Students:

- Students must have a 2.0 cumulative GPA at the end of each fall, spring, and summer semester.
- Students must earn at least 75 percent of all hours attempted.
- Students pursuing DVM degrees may only receive financial aid for a maximum of 236 attempted credit hours.
- JD/CL students may receive financial aid for a maximum of 125 attempted credit hours.

If these established criteria are not met at the end of the fall, spring, or summer semesters, students may seek to appeal if mitigating circumstances affected their academic performance. Students are notified when they are not considered to be making satisfactory academic progress at the end of each semester. For a student to re-establish eligibility they must either (1) receive an approved appeal or (2) meet the Satisfactory Academic Progress requirements at the end of the next semester in which they enroll. The complete Satisfactory Academic Progress policy is available online.

### **Resignations/Unofficial Withdrawals**

Students who receive financial aid funds and then resign or unofficially withdraw (cease attendance) during the first 60 percent of the enrollment period will be required to repay all or part of the aid they received. The amount of aid that must be returned is based on the period of time the student remained enrolled. Detailed information regarding the return of funds and postwithdrawal disbursements, if applicable, is located at www.lsu.edu/financialaid.

Federal aid must be returned within 45 days to the appropriate programs in the following order: Unsubsidized Federal Stafford Loans, Subsidized Federal Stafford Loans, PLUS (Parent) Loans, Graduate PLUS Loan, Pell Grants, and SEOG. The amount of aid to be returned will be calculated at the time of resignation. For unofficial withdrawals, the amount will be calculated at the end of the enrollment period. Until this obligation is settled, requests for academic transcripts will not be processed and any further financial aid may be in jeopardy.

### **Campus Employment**

Those students who want to work on campus, but do not qualify on the basis of financial need, may seek regular student employment by contacting various departments on campus. Only full-time students who are not on academic probation are eligible to hold campus jobs. Graduating seniors who are part-time in their final semester may have permission to work in a campus job. The LSU Olinde Career Center location in the Student Union provides assistance to those who seek part-time, internship, co-op, or volunteer positions on and off campus. Graduate students should inquire about the availability of assistantships in their departmental offices. For additional information, visit careercenter.lsu.edu.

### Short-Term LSU Loans

Full-time students, who have completed registration, and have not received a credit balance check, may apply for short-term Hiram Student Loans in the amount of \$300 for undergraduate students and \$500 for graduate/professional students. Students must not be on academic probation to receive these loans. Students must have repaid any prior short-term loans to be eligible. Loans are made starting on the first day of classes and continues for the first two weeks of classes. Students are permitted a maximum of 60 days to repay the loan in full. A 2 percent service charge is assessed on the amount borrowed. This 2 percent service charge is equivalent to an annual interest rate of 12 percent.

Hiram Student Loans are to be repaid at the Office of Bursar Operations, 125 Thomas Boyd Hall, on or before the maturity date shown on the promissory note signed by the student at the time the loan was negotiated. Students who fail to repay Hiram Student Loans by the maturity date may jeopardize their chances of receiving future loans.

Accounts that must be turned over to LSU's attorneys for collection are assessed an additional collection fee. *All international students who are interested in Hiram Loans should contact the International Student Office* **prior** to receiving loans or working in jobs on campus.

### Veteran's Benefits

The Office of Financial Aid and Scholarships, 1146 Pleasant Hall, assists students who qualify for various Veterans Affairs educational benefits, Louisiana National Guard, or Dependents' State Aid exemptions. Students should contact the Office of Veterans Affairs to request processing of enrollment certifications for each term they will receive the benefit.

More information is available at the Office of Veterans Affairs website: www.lsu.edu/vetaffairs.

### **Undergraduate Fees and Expenses**

The Board of Supervisors may adjust fees and costs for dining plans and housing at any time and without providing advance notice to students. Please check with the Office of Budget & Planning's website, http://www.lsu.edu/bgtplan/, for up-to-date fee information.

### **Fees and Expenses**

Student expenses, other than campus fees and nonresident fees, will vary with the individual. A Baton Rouge area student living with parents or a student living on campus spends about \$6,580 in addition to fees, housing, and a dining plan per school year. A student living off campus can expect to spend at least \$22,592 per academic year for rent, food, clothing, laundry, cleaning, books and school supplies, transportation, entertainment, and incidentals.

The following is an **approximation** of what a student may expect to spend each semester for fees, housing, and dining plan.

### Semester Fees for Undergraduate Students

Please refer to the Office of Budget & Planning website (http://www.lsu.edu/bgtplan/Tuition-Fees/fee-schedules.php) for the listing of current fees.

### **Housing Fees**

Published on-campus rental rates for residence halls and apartments are per semester, per student. Please refer to the Residential Life website (http://lsu.edu/reslife/) for a listing of current rates.

### LSU Dining

Please refer to the LSU Dining website (www.lsudining.com) for information on meal plans, locations, and pricing.

# **Application Fee**

A *nonrefundable application fee* of \$40 is required upon submission of the online application. Online options for payment include credit card or bank draft. In addition to this fee, a *nonrefundable late application fee* of \$15 is charged to students who file applications after **December 1** for the spring semester, after **April 15** for the summer term, and after **April 15** for the fall semester. Applications submitted after the deadline date will be considered on an appeal basis only. The university is not responsible for cash sent by mail.

### **Graduation Fees**

- Bachelor's degree fee, \$25
- Duplicate diploma fee, \$20 (charged if a diploma is ordered and student does not graduate at that commencement)
- Replacement diploma fee, \$30

See the The Graduate School chapter of this catalog for graduate student's graduation fees.

### **Special Fees**

#### **Academic Excellence Fee**

The Academic Excellence Fee is used to promote academic excellence by enhancing instructional programs.

### **Operational Fee**

During the 2004 Regular Session, the Louisiana Legislature passed House Bill 1062 authorizing the LSU Board of Supervisors to assess an operational fee of up to four percent of the total mandatory tuition and fees. The operational fee is used to cover state mandated costs and enhance instructional programs at the university.

#### **Student Technology Fee**

This fee is dedicated to the acquisition, installation, maintenance, and intelligent use of state-of-the-art technology solely for the purpose of supporting and enhancing student life and learning and preparing graduates for the workplaces of the 21st century.

#### **Building Use Fee**

During the 2013 Regular Session, the Louisiana Legislature passed House Bill 671, authorizing the LSU Board of Supervisors to assess a building use fee beginning in the fall of 2013. The fee is used to construct, acquire, repair, maintain, operate, or improve the facilities and physical infrastructure of the university.

#### **Student Excellence Fee**

The purpose of this fee is to enhance the LSU student learning experience. The fee revenues are used to increase instructional and student support services as part of LSU's graduation and retention efforts. The majority of the funds are allocated to academic colleges, with the remainder allocated to student support functions such as the Center for Academic Success, LSU Libraries, mental health counseling, and campus safety.

#### **Student Health Fee**

During registration, all full-time students are assessed the student health fee. This fee, included in the required fees, entitles the student to use of the Student Health Center.

There is no charge to visit primary care and specialty medical clinicians, but charges are assessed for procedures, injections, prescriptions, diagnostic imaging, and laboratory work. Students can also see a mental health clinician, health educator, and registered dietitian at no additional charge.

Part-time students have the option to pay the student health fee. They can elect to pay the fee when they register for classes or at any time during the semester. They start receiving services at the time they pay the fee.

If their student spouse is eligible for services, non-student spouses have the option to pay the student health fee. Payment of the fee entitles them to the same services as full-time students. Ancillary service charges (lab and diagnostic imaging) will be assessed at current student rates.

### **Student Recreation Fee**

During registration, all full-time students are assessed the student recreation fee. This fee entitles students membership to University Recreation and access to the UREC Student Recreation Complex and UREC Field Complex. Please refer to www.lsu.edu/urec for a listing of the current rates, programs, and services.

Part-time students may elect to purchase a UREC membership at the current student rate. Memberships may be purchased at the Student Recreation Center operations desk. Student spouse, dependent, and family memberships are also available.

### **Audit Fees**

Fees for auditing courses are in accordance with the "Regular Semester" and "Summer Term" fees. Fees for students enrolling for combined credit and audit work will be assessed in accordance with total hours scheduled.

### **Registration through LSU Olinde Career Center Cooperative Education (Coop) or Internship Programs**

Upon receiving an offer for an internship or co-op, students must officially register the position with LSU by contacting the LSU Olinde Career Center. For more information about officially registering a co-op or internship, please visit www.lsu.edu/careercenter/students/work/intern/register.

Students enrolled in the alternating Co-op Program or Internship Program pay the tuition and required fees as follows:

#### **Cooperative Education or Internship Only**

Students enrolled in cooperative education or internship only during the fall, spring, or summer semester pay the \$50 co-op or intern fee and all full-time required fees (excluding the Student Sports Recreation and Student Health Service Fee). Please refer to the Office of Budget & Planning website for the listing of current fees. Note: The LSU Board of Supervisors can modify tuition and/or fees at any time without advance notice.

#### **Cooperative Education or Internship & One or More Courses**

A student enrolled in cooperative education or an internship and one or more courses during the fall, spring, or summer semester pays tuition appropriate for those credit hours and all full-time required fees (excluding the Student Sports Recreation and Student Health Service Fees). Please refer to the Office of Budget & Planning website.

### **Three-Week Summer Short Courses**

See note section at bottom of Summer Student Required Fees Schedule on the Office of Budget & Planning website.

#### **Undergraduate Field Fees**

Tuition & Required Fees for Summer short and field courses conform to the regular Full Time Summer Term Tuition & Required Fees. Please refer to the Office of Budget & Planning website "Required Fees" section at http://www.lsu.edu/bgtplan/Tuition-Fees/fee-schedules.php for additional information.

#### **Other Fees**

- A small number of curricula and courses require the payment of additional fees. These fees are detailed in the college, school, departmental listings, or in the course descriptions.
- Students registering for *degree only* pay no registration fee. (Such students must register through the Office of the University Registrar no later than the beginning of the semester or summer term when the degree is to be conferred.)
- Departmental Proficiency and Advanced-Standing Examinations- \$20 per examination. An additional \$20 processing
  fee is assessed for each examination administered by the Office of Assessment & Evaluation. These examinations are
  given free of charge to beginning freshmen who are participants in the Spring Invitational, Freshman Orientation, or
  Special International Student Testing programs, provided the students complete the testing by the final date to add
  courses for credit during their first term of enrollment at LSU. All other students must pay the fees specified above.
- Each LSU nonimmigrant student will be charged \$10 per semester to support the programs, operations, and maintenance of the *International Cultural Center*. F/J status non-immigrant students will also be charged \$50 per semester for International Student Service Charge (ISSC). This service charge allows the LSU International Services office to meet federal mandates and provide advisory and immigration services to the international population at LSU.

### **Parking Permit Fee**

All students (full-time, part-time, night, and auditors) who operate or expect to operate a motor vehicle on campus regularly or occasionally are required to purchase the appropriate permit through Parking & Transportation Services. The permit can be purchased for a day, week, month, semester or annual time period; however, it is strongly encouraged to purchase an annual permit. Motorcycle, motor scooter and moped permits are available as well. The exact amount of this fee will be published each year in the *Traffic & Parking Regulations and Map* publication issued by Parking & Transportation Services or on the Parking & Transportation Services website.

# **Student Medical Health Insurance Plan**

A student medical insurance plan is offered to students and their eligible dependents through an insurance company provided by the University. This coverage is strongly recommended to relieve students of possible financial strain in meeting expenses for medical services that the Student Health Center fee does not cover.

All non-immigrant international students on "F" and "J" visas will be automatically enrolled in the LSU Student Medical Insurance Program at the time of registration. International students on "F" and "J" visa statuses may substitute the LSU Student Medical Insurance Plan with a private medical insurance plan which meets all mandatory requirements. Acceptable medical insurance plans must meet or exceed the following:

- Policy minimum of \$50,000 per accident or sickness for F-1 and F-2 visa (issued I-20 forms) or \$100,000 minimum aggregate. Policy minimum of \$100,000 per accident or sickness for J-1 or J-2 visa holders (issued DS-2019 forms) (required by the U.S. Department of State regulations)
- Maximum deductible amount of \$500 per accident or per illness (for multiple party plans: \$500 per person not to exceed \$1,000 per policy year)
- Policy benefits must include maternity coverage paid as any other health conditions, regardless of gender
- A U.S. representative physically located in the U.S. with a U.S. telephone number/contact who acts on behalf of insurance company/insurance plans: (benefit verification and processing ability)
- Policy must cover office visits for non-emergency services and emergency visits (no emergency care only policies will be accepted)
- Minimum coverage of \$25,000 repatriation of remains to home country. (pre-existing conditions related deaths (including suicide) must be covered; coverage must remain in force during entire stay in the U.S.)
- Minimum coverage of \$50,000 medical evacuation to home country. (pre-existing conditions related illnesses must be covered; coverage must remain in force during entire stay in the U.S.)
- For J-1 and J-2 visa holders (issued DS-2019 forms) –(required by the US Department of State):
  - Underwritten by an insurance corporation having an A.M. best rating of "A-" or above, an Insurance Solvency International Ltd. (ISI) rating of "A-I" or above, a Standard & Poor's Claims-Paying Ability rating of "A-" or above, a Weiss Research, Inc. rating of "B+" or above; OR
  - o Backed by the full faith and credit of the government of the exchange visitor's home country
  - Co-insurance provisions will be permitted requiring exchange visitor to pay up to 25% of covered benefits per accident or illness

The School of Veterinary Medicine students are required to have the student medical insurance coverage through enrollment in the University-sponsored plan or to provide proof of enrollment in a medical plan which meets all mandatory requirements.

# **Payment of Fees**

Students are notified by e-mail each semester by the Office of Bursar Operations of the date the online fee bill is available on myLSU. All fees and other university charges are due by the date indicated on the online fee bill.

### **Payment Options**

- *Online check/bank draft* Pay your fee bill with an online check or bank draft via myLSU from the "Fee Bill" application.
- *Credit card* Pay your fee bill with a MasterCard, Visa, American Express, or Discover credit card via myLSU from the "Fee Bill" application. Note: A 2.5 percent processing fee will be added to credit card payments.
- *Mail* Print and return the online remittance stub and payment to the LSU Office of Bursar Operations, 125 Thomas Boyd Hall, Baton Rouge, LA 70803.
- In person Pay by cash, check, or money order in 125 Thomas Boyd Hall.
- Deferred payment plan Eligible student can defer 50 percent of the current semester charges. Payment of 50 percent of current semester charges and any prior account balance must be received by the payment due date. Note: A \$15 service charge will be assessed on all deferments. The deferred payment plan may be selected via myLSU from the "Defer Payment/Payroll Deduct" application.

### Late Registration Service Charge

Students who do not pay fees by the deadline must pay a \$75 late registration service charge when subsequently registering.

# Fee Exemptions for Individuals Over 65

According to the provisions of Act 525 of the 1975 Louisiana legislature, individuals over 65 years of age may enroll in one or more college-level courses and be exempt from the payment of the university fee. Further information may be obtained from the Office of the University Registrar.

# **Financial Obligations to the University**

A student will be subject to dismissal from the university as a result of failure to pay fees and/or other charges when due or when a check offered by the student in satisfaction of an obligation to the university is not honored by the bank on which it was drawn. Due notice of the delinquency shall be given to the student by the Office of Bursar Operations. There will be a charge of \$25 per returned check.

# **Refund of Fees**

- Refund of the university fee, nonresident fee, student health service fee, academic excellence fee, operational fee, and student technology fee will be made on the basis of the official withdrawal of the student. Refer to chart below for the schedule for refund of fees. ("Days of classes" are days on which regular classes are held.)
- No refunds will be processed for at least six weeks after registration.
- No refunds will be made to anyone who owes the university. Student-initiated resignations will not be completed until all money owed to the university is paid.
- Field service and transportation fees will be refunded on an individual basis upon recommendation of the department concerned.
- Reductions and increases of fees resulting from student schedule changes will be refunded or charged in accordance with the schedule below.
- All full-time students who become part-time students after the last day to receive a refund will continue to be eligible for all student activity privileges.
- Students in good standing at the university, registered in any semester or summer term, who volunteer for military service before the day mid-semester examinations begin, will have the university fee, nonresident fee, student technology fee, and student health service fee refunded. Students in good standing at the university, registered in any semester or summer term, who volunteer for military service after mid-semester examinations begin, will be refunded 50 percent of the university fee, nonresident fee, academic excellence fee, operational fee, student technology fee, and student health service fee. See also "Refund of Residence Hall Rent" in the "Student Resources" section of this catalog.
- Students registered in any semester or summer term, who are called to active duty in the armed forces through the last class day of the semester or summer term, will have 100 percent of the university fee, nonresident fee, academic excellence fee, operational fee, student technology fee, and student health service fee refunded. See also "Refund of Residence Hall Rent" in the "Student Resources" section of this catalog.
- For information on the refund of other fees (such as housing, meal plans, etc.) refer to the section in this catalog pertaining to those fees.

Title IV program fund recipients resigning from the university without completing at least 60 percent of the enrollment period will be required to return all or part of the aid they received to the appropriate programs in the following order: Unsubsidized Federal Stafford Loans, Subsidized Federal Stafford Loans, Perkins Loans, PLUS (Parent) Loans, Graduate PLUS Loans, Pell Grants, Academic Competitiveness Grant (ACG), National SMART Grant and SEOG. Specific information regarding this refund schedule is available at www.lsu.edu/financialaid.

SCHEDULE FOR REFUND OF FEES				
Semester • Summer Term	100% Refund	90% Refund	50% Refund	No Refund
Fall or Spring Semester	Before class begins	First 6 class days	7 <sup>th</sup> -24 <sup>th</sup> class day	After 24 <sup>th</sup> class day
Regular Semester Eight-Week Sessions	Before class begins	First 3 class days	4 <sup>th</sup> -12 <sup>th</sup> class day	After 12 <sup>th</sup> class day
Summer Session A	Before class begins	First 3 class days	4th-12th class day	After 12 <sup>th</sup> class day
Summer Session B	Before class begins	First 3 class days	4 <sup>th</sup> -7 <sup>th</sup> class day	After 7 <sup>th</sup> class day
Intersessions	Before class begins	First class day	2 <sup>nd</sup> -4 <sup>th</sup> class day	After 4 <sup>th</sup> class day
LSU Online Module	Work day prior to first class day	N/A	1 <sup>st</sup> -3 <sup>rd</sup> class day	After 3 <sup>rd</sup> class day

### **Undergraduate Degree Requirements**

LSU has the responsibility to protect its educational mission and the health and safety of its community and of the property therein, through regulating the use of university facilities and setting standards of scholarship and conduct for its students.

Because of its educational mission, the university also has the responsibility to carry out its disciplinary authority in a manner that contributes to the development and education of the student.

The disciplinary authority of LSU is derived from the provisions of the *Louisiana Revised Statutes*. These statutes established the Board of Supervisors and gave it the power to adopt rules and regulations necessary for the government of the university consistent with its mission and to adopt rules and regulations governing student conduct.

All students are bound by the LSU Code of Student Conduct, Bylaws, and Regulations of the Board of Supervisors, University Policy Statements, and Permanent Memoranda. Any student found in violation of the aforementioned policies may be held accountable and be subject to the accountability process. The LSU Code of Student Conduct, "the Code", can be found at www.lsu.edu/saa.

The purpose of the Code is to engage students on issues of community membership, encourage responsible decision-making, promote academic integrity, safeguard the health and welfare of all members of the university community, and protect university property.

Faculty and staff are required to follow the procedures outlined in this Code when they become aware of behavior that may violate the standards of this Code. These procedures are an important part of the educational process.

### **Student Responsibility**

Each student is responsible for completing all requirements established for his or her degree by the university, college, and department. It is the student's responsibility to learn these requirements; a student's advisor or counselor will not assume that responsibility.

Any substitution, waiver, or exemption from any established departmental or college requirement or academic standard may be accomplished only with the approval of the dean of the college offering the major. Exceptions to university requirements, including general education requirements, will be authorized only with the recommendation of the dean of the college offering the major and the approval of the Office of Academic Affairs.

Each student must see an academic advisor or coordinator in the academic dean's office offering the major to review and sign a final degree audit report during the semester prior to the semester in which the degree is to be awarded. See the degree requirements sections in the individual college sections in this catalog to determine if degree check out is required earlier than the semester prior to the semester in which the degree is to be awarded.

# The Catalog that Determines the Curricular Requirements for an Undergraduate Degree

Degree-seeking students are expected to adhere to the curricular requirements for an undergraduate degree based on the *General Catalog* at the time of entry into the university. This catalog may be used for a maximum of 10 years provided enrollment is not interrupted for two or more consecutive regular semesters. Students whose enrollment is interrupted for two or more consecutive semesters follow the curricular requirements stated in the catalog issue at the time of readmission.

Degree-seeking students who are currently enrolled at the university may opt to follow new curricula requirements that are revised in catalogs issued after their initial enrollment. This decision must be approved by the students' academic deans.

Transfer students may use the *LSU Catalog* in effect at the time of their first entry into any accredited higher education institution provided that the transfer to LSU is made within five years of their first entry to a college or university and provided enrollment has not been interrupted for two or more consecutive regular semesters.

Students enrolled in non-degree programs are expected to adhere to curricular requirements in effect at the time they are admitted to a degree program.

The university will make a reasonable effort to honor the curricular requirement in the chosen issue of the catalog. However, because courses and programs are sometimes changed or discontinued, the university, having sole discretion, shall make the final determination of whether or not curricular requirements are met.

**Note:** Admission to LSU does not guarantee admission to a student's program of choice; many programs have highly selective admission criteria. Students follow the senior college program admission requirements in their catalog of entry into LSU. However, students transferring from another institution to LSU or from one major to another within the university must meet the program admission requirements in the catalog in effect at the time of transfer. Students are encouraged to obtain the most up-to-date and accurate information about requirements and changes at www.lsu.edu/catalogs.

### **Catalog Issue and University Policy Changes**

The university has the right to implement academic policy changes regardless of a student's year of catalog issue. For instance, a change in a course attribute such as the prerequisite can be implemented immediately after receiving final university approval. It is the student's responsibility to stay abreast of university policies.

# Academic Requirements For Obtaining A Degree

- A grade point average of 2.00 on all work taken, except for those courses in which grades of "P", "W", or "I" are recorded, is required for graduation. In order to meet graduation requirements, students must have a 2.00 average on work taken at this university (all LSU campuses) as well as a 2.00 average on their *entire* college record.
- Candidates for a bachelor's degree must earn at least 25 percent of the total number of hours required for the degree at this university and meet the residence requirements of their college as stipulated in each college's and school's section of this catalog.
- Due to varying residency and senior college academic requirements, students should contact their academic counselor prior to earning credit from other institutions.
- Students must complete a general education component of 39 semester hours in approved courses in six major areas: English composition, analytical reasoning, arts, humanities, natural sciences, and social sciences. Each student must demonstrate computer literacy in ways deemed appropriate by the faculty of the senior college in which the student is enrolled. "The General Education Component of Undergraduate Education " section of this catalog specifies approved courses and the regulations governing applicable credit.
- Students should review specific curricula for precise degree requirements.
- In addition to these minimum requirements, students must meet all special regulations established by the faculties of their respective colleges and listed in each college's section of this catalog.
- Degrees, both honorary and earned, are conferred only by vote of the Board of Supervisors upon recommendation of the faculty of the university or the faculty of the appropriate college, school, or division of the university (all LSU campuses).
- Once degrees have been conferred, additional majors, minors, concentrations, etc., may not be appended to the degrees.

# **Undergraduate Areas Of Concentration**

An *area of concentration* is an alternative track of courses within a major, accounting for at *least 30 percent* of the major requirements. Establishment of an area of concentration does not require prior approval by the Board of Regents. Areas of concentration are available within most undergraduate curricula. For additional information, see the curricula listed in the appropriate college section.

With the permission of the dean's office offering the concentration, students may earn multiple areas of concentration within a major. To do so, they must declare a primary area of concentration and fulfill all requirements for each area of concentration. Each declared area of concentration must include a minimum of six hours of coursework that is unduplicated in any other area of concentration.

# **Undergraduate Minors**

A *minor* is that part of a degree program consisting of a specified group of courses in a particular discipline or field. Establishment of a minor does not require prior approval of the Board of Regents. The minor usually consists of *15 percent* or more of the total hours required in an undergraduate curriculum. Minors are established by departmental, school, or college faculties. Once a minor has been established, students are subject to the following rules and procedures:

- When a student wishes to pursue a minor, the student must obtain permission from his/her dean's office.
- The course requirements for the minor, including prerequisites, as published in the *LSU General Catalog*, must be followed. Any substitutions in the minor must be approved by the faculty advisor in the department of the college offering the minor and the student's dean's office.
- A student following a particular catalog for the major field typically follows the minor requirements stated in the same catalog. However, exceptions must be approved by the student's dean's office.
- A student must earn a minimum 2.00 GPA in the minor field, although some faculties may impose higher minimum GPA requirements.
- Courses used to satisfy the minor may not be taken on a pass/fail basis, except with permission from the department and the student's dean's office.
- Degree audits for minors will be verified by the college in which the student is enrolled. The minor should be declared no later than graduation check-out time. All course requirements for the minor must be completed by the time of graduation.

### Earning Two Degrees or One Degree with Two Majors

With the dean's approval, a student may enroll in two bachelor's degree programs concurrently, and thereby earn two degrees. A student also has the option to earn one degree with two majors listed on the transcript, provided all requirements are completed as of the same commencement.

A student may earn one degree, with two majors listed on the transcript, by completing the residence and academic requirements for each major and the degree program to which it belongs. The student may earn two degrees by, in addition, earning 30 hours more than required for the degree that requires the fewer number of hours.

If the two programs are in different colleges, then the student must be accepted for admission to both colleges and must adhere to the regulations of both colleges. The student must declare a home college, where registration will be initiated and permanent files maintained, and must maintain contact with the second college to ensure that satisfactory progress is being made toward the requirements of its degree program.

### **Requirements for a Second Baccalaureate Degree**

Graduates who wish to obtain a second baccalaureate degree from this university must meet all academic and residence requirements set by the college(s) concerned and must earn a minimum of 30 semester hours beyond the work counted to meet the degree requirements of the first degree. Students may only earn one bachelor's degree at LSU with the same major field of study.

### **Graduate Credit and Baccalaureate Degrees**

Graduate credit courses cannot be used to satisfy any undergraduate degree requirements, including electives. The only exception to this rule is when a student enrolls in a combined curriculum program in which the faculty has approved graduate credit courses fulfilling undergraduate degree requirements.

# **Procedural Requirements for Obtaining a Diploma**

- During the semester prior to the one in which graduation is anticipated, candidates must request that the dean of their college evaluate their academic records for compliance with degree requirements. (Each college establishes its own degree requirements, which are listed in that college's section of this catalog.) At the time of degree application, candidates must indicate how they wish their names to appear on the diploma and in the commencement program.
- At their last registration, candidates must pay the graduation fee. Students should consult the current *Registration* Schedule of Classes for the deadline to receive a refund of the graduation fee. Students who previously have paid a graduation fee, but who did not graduate at the expected time, must pay a \$20 duplicate diploma fee.
- All financial indebtedness to the university (all LSU campuses) must be cleared prior to graduation. Students who received Stafford loans will be notified via U.S. mail to complete an online exit interview.

### **Degree Audit**

Degree audit is an online electronic system that monitors the progress of an undergraduate major toward completion of the degree. A currently enrolled student can view a degree audit report through myLSU. The degree audit report is a valuable tool for academic planning because it lists the courses the student has taken, the degree requirements he or she has fulfilled, and the requirements that remain to be completed. Students may request a degree audit report for their current major or for an alternative major.

# **Comprehensive Academic Tracking System (CATS)**

The **Comprehensive Academic Tracking System (CATS)** is designed to help students reach academic success at LSU and make sure they are progressing toward graduation each semester. Each major has a Recommended Path, designed by the LSU departmental faculty, which is the optimal path for graduation in four years. CATS checks students' progress each semester by tracking them on the critical requirements outlined in their Recommended Path and gives feedback when students are not meeting those requirements.

CATS provides feedback on a student's progress in a major, helping them to find the best academic path to complete their degree. By assessing students' progress toward degree completion, CATS will identify those students who may be struggling. This affords the university the opportunity to provide additional counseling and advisement resources to assist students.

### **Critical Tracking Requirements**

The critical tracking requirements have been identified by departmental advisors for each major. The criteria are specific performance measurements that have been singled out as mandatory for progression in that degree program. These are the requirements that students must meet to maintain minimum academic progress and continue progressing in their chosen major.

#### **Minimum Academic Progress**

Students must meet the critical tracking requirements within the Recommended Paths to demonstrate minimal progress toward degree completion. Critical tracking requirements typically include both critical courses and minimum GPA requirements. The critical requirements for a given semester are located at the top of a student's recommended path. Additionally, all critical requirements are listed on the top line of each semester, and appear in bold throughout the Recommended Paths.

Recommended Paths for all catalogs from 2013-14 on will be found within each departmental section of the online catalog. Recommended Paths for all catalogs beginning with the 2006-07 version up to the 2012-13 version can be found at cats.lsu.edu/degreepath. Students are encouraged to use these plans when scheduling courses in their chosen program of study.

All full-time, incoming freshmen will be monitored to determine if they have met the critical tracking requirements for their chosen program, regardless of the number of hours earned through dual enrollment or credit by examination. Transfer students enrolling at the university with fewer than 70 credit hours earned will be tracked beginning with their second semester of enrollment. Students who are undecided about their major must follow the Recommend Path and critical tracking requirements established within one of three general areas of interest: Science and Engineering, Arts and Humanities, or Social Sciences. These students will be advised by the Center for Freshmen Year and are required to select a major before scheduling courses for their third semester.

### **Assessments of Academic Progress**

Two assessments run during the semester to determine if students are making minimal academic progress in their degree programs. As a result of these assessments, students will receive a myLSU e-mail notification if they are not making minimal progress. This e-mail contains a link directing them to their myLSU desktop and the CATS Status Application (located under the Student Services tab). The two assessments that run are as follows:

**Mid-Semester Assessment** – This assessment occurs prior to course scheduling for the upcoming semester. It is run to determine if students are taking the critical courses required for the current semester. If critical requirements are not being met, a hold is placed on the student's registration, preventing them from scheduling for the upcoming semester without first seeing their advisor.

End of Semester Assessment – This assessment occurs after final grades are submitted. It is run to check for all critical requirements, including grades in courses, a student's GPA, and potentially, admission to a senior college. A hold is placed on the student's registration if critical requirements have not been met. If the student has already scheduled for the next semester, he or she cannot make any changes to their schedule until they see an advisor. Additionally, students not meeting minimum GPA requirements are advised to seek guidance from the Center for Academic Success.

# Students Who Do Not Make Minimal Progress for Two Consecutive Semesters

If a student is flagged for not making minimal progress in their major in two consecutive semesters, the student will have a hold placed on their registration, and the student is required to meet with an academic advisor to select a new major that is better aligned with the student's interests and abilities.

#### **Resources Available to Help With Selecting a New Major**

The Center for Academic Success offers study skills workshops and other sessions geared towards improving overall academic performance. Additionally, the Center for Academic Success directs students to programs that would be a better fit for their academic needs and interests.

The LSU Olinde Career Center offers workshops and counseling assistance to help students select a new major.

# Honors

### **President's Honor Roll**

The President's Honor Roll is prepared each semester. Undergraduate students completing at least 15 college-level hours at LSU in the semester, with a semester GPA of 4.00 and no "I" grades for the semester, are included on the roll. Distance Learning Programs courses will not be used to determine eligibility under the 15-hour requirement.

### **Dean's List**

The Dean's List is compiled each semester and summer term. Undergraduate students completing at least 15 college-level hours at LSU in the semester or at least 9 college-level hours at LSU in the summer term, with a semester or summer term average of at least 3.50, but less than a 4.00, and no "I" grades for the semester or summer term, are included in the list. Distance Learning Programs courses will not be used to determine eligibility under the 9- or 15-hour requirement.

### **University Honors**

Students awarded the baccalaureate degree with honors must satisfy all requirements imposed by their colleges, schools, or departments. In addition, two GPAs will be computed for each student: (1) on all work completed and (2) on all work completed at the university (all LSU campuses). These GPAs will be inclusive of all grades, including those previously excluded through the Grade Exclusion Policy. <u>All grades</u> will be used to determine University Honors. The **lower** of the averages will be used to determine eligibility for Latin honors as follows:

- *summa cum laude* if the GPA is at least 3.90,
- *magna cum laude* if the GPA is at least 3.80,
- *cum laude* if the GPA is at least 3.70.

Students in combined undergraduate, graduate, and professional curricula (medical, veterinary medicine, law, allied health) who earn more than 50 percent of their credits in an undergraduate college at the university (all LSU campuses) with a GPA greater than or equal to 3.70 are eligible to receive their degrees with honors. To determine honors, the student's average at the university (all LSU campuses) is weighted with the average furnished by the professional school.

### **University Medal**

The University Medal is awarded to the undergraduate student (or students) graduating with the highest GPA, provided that more than 50 percent of the credits required for the degree has been earned at LSU A&M. Grade-point averages will be computed for (1) all work completed and (2) all work completed at LSU A&M with the lower of the two averages determining eligibility for the medal. Course grades that were excluded previously through the Grade Exclusion Policy will be included in determining the University Medalists. All grades will be used to determine medalists.

Since the University awards A+ grades, plus/minus grading impacts the awarding of the University Medal. All students with the applicable GPA of 4.00 or higher will be awarded the medal. That is, a GPA above 4.0 will be truncated and considered as a 4.0 GPA for the selection of University Medalists. As a point of clarification, a student who has earned all A+ grades would have a GPA of 4.00 and another student who has all A grades including an A- grade and an A+ will have a GPA of 4.0 and would be eligible to receive the medal. Conversely, a student who has earned all A grades, including an A- would not be eligible for the medal if another student has earned a 4.00 GPA.

### Regulations

### **Enrollment At LSU**

### Registration

Students must complete registration, including payment of fees as stipulated in the "Undergraduate Fees and Expenses" section of this catalog, to attend class. The Office of the University Registrar will provide evidence of registration to instructors. *The Students Records and Registration View Class Roster Screen, myLSU Class Rosters, and Moodle Class Rosters indicate if students are officially registered. Students who are not officially registered may not attend class.* 

Approval to register by the student's dean's office is required after the official "final date for adding courses for credit" specified in the "Academic Calendar".

### **Identification Cards**

When first enrolled in the university, students are issued permanent photo identification cards (Tiger Cards) at no cost. The ID card is the property of the university and must be retained for each subsequent term of enrollment.

Lost or stolen ID cards must be reported to the Tiger Card Office, 109 LSU Student Union, as soon as the loss or theft is discovered. Students who do not report lost or stolen cards in a timely manner may be held responsible for any charges incurred on the cards.

Students who alter or intentionally mutilate a university ID card, who use the ID card of another, or who allow others to use their ID cards may be subject to university discipline.

A charge is assessed to replace a lost, stolen, or mutilated ID card, even if the student is re-enrolling after an interruption of study. If a replacement card is issued, the original card is no longer valid.

#### Addresses

Students are expected to keep the university informed of their current addresses. Students will be held responsible for communication from any university office sent to the most recent address(es) provided. Changes in address may be made by using myLSU, in deans' offices, or in the Office of the University Registrar.

Students may choose to withhold information from the Internet using myLSU and following the procedure listed.

Students' names, e-mail addresses, and telephone numbers are displayed on the myLSU directory. Students may withhold this information by using myLSU and following the procedure provided at that site.

#### **First Class Meeting**

Students who fail to attend the first class meeting without prior arrangement with the department may be dropped or required to drop the course to make space available to other students.

Students are responsible for ensuring that they have been dropped from the course; otherwise, they are liable for a grade of "F."

#### Attendance

Students should observe any special attendance regulations stated by their college, school, division, or the instructor. The instructor may report a student's absences and the student may be placed on attendance probation by his or her dean. A student may be dropped from the college by violating the written terms of such probation.

For online courses, logging into a course's management system (e.g., Moodle) does not constitute attendance in that course. Instructors of online courses may define and include *any* "academically related" activity as participation in a course.

These activities can include, but are not limited to:

- 1. Participating in any assigned activity (e.g., attending a synchronous teleconference or video conference, submitting assignments, taking examinations, engaging in an assigned study group, participating in a discussion forum)
- 2. Completing interactive tutorials or interactive, computer-assisted instruction
- 3. Discussing the course's subject matter (e.g., participating in course activities, interacting with other students or the instructor via email, course management system, or Internet)

An absence due to illness or other causes beyond a student's control will be excused when the instructor is convinced that the reason for absence is valid. The university's *Policy Statement 22* discusses approved trips, activities, and other instances of excused absences.

Instructors will excuse any student who is unable to attend or participate in class or an examination on a religious holiday supported by the student's religious beliefs. It is the student's responsibility to anticipate such conflicts and discuss this with the faculty member well in advance.

### **Adding or Dropping Courses**

To avoid schedule changes after the official registration period, students are encouraged to plan each semester's coursework in consultation with academic advisors. Any schedule changes should be made as soon as possible after the beginning of classes.

Semester/Term	Add Courses	Drop Courses Without Receiving a ''W'' Grade	Drop Courses and Receive a ''W'' Grade
Fall & Spring Semester	8th class day	7th class day	8th class day through final date to drop courses
Fall & Spring Semester Eight Week Session	4th class day	3rd class day	4th through 26th class day
Summer Term – Session A	4th class day	3rd class day	4th class day through final date to drop courses
Summer Term – Session B	4th class day	3rd class day	4th class day through final date to drop courses
Intersessions	2nd class day	1st class day	2nd through 8th class day
LSU Online Module	Work day before classes begin	3rd class day	4th through 26th class day

Students may add and drop courses as follows:

A "W" grade will be entered on a student's record for any course dropped as indicated in the last column in the table above. Students should consult the academic calendar maintained by the University Registrar (www.lsu.edu/registrar) to determine deadlines each semester.

### **Undergraduate ''W'' Grade Policy**

Within the limits of the following table, "W" grades do not affect a student's GPA; however, an excessive number reflects negatively on a student's record and involves substantial cost by way of tuition, books, room and board, and lost opportunities. To graduate in a timely manner, a student should complete at least 15 hours per semester and plan on attending at least one summer term.

Withdrawals cannot exceed the numbers allowed in the following table unless authorized by the dean of the student's college. Withdrawal allowances cannot be carried forward.

Hours Earned	Withdrawals Allowed Since August 2010
0-59	3
60-119	3
>119	1

Hours Earned does not include advance standing type credits with respect to this policy.

"W" grades earned via the following methods do not count in the number of drops permitted:

- Resignation from the university.
- Courses dropped during the summer term or intersessions.
- Courses offered through the Division of Continuing Education that students drop.

#### **Undergraduate Enrollment in Graduate Courses**

Refer to "Course Numbering System" in the section, "Courses: General Information," in the catalog for information on the enrollment for undergraduate credit in 4000- or 7000-level courses.

Superior undergraduates may also register for graduate credit under the section "Accelerated Master's Degree Program". Requirements for the program are specified in the section, "The Graduate School," in this catalog.

### **Registration of LSU Nonacademic Employees**

Full time, nonacademic (excluding faculty) employees, who have been employed at least one year, with approval from their department head or supervisor, may register for job-related undergraduate or graduate courses at any LSU campus for up to six hours per semester and receive full tuition exemption. Only three hours per week of the approved job-related courses may be taken during work time without charge to annual leave. Continued participation in the tuition exemption program will be based on making satisfactory progress, as determined by the employee's supervisor. Satisfactory progress shall generally be interpreted to include completion of the course with a passing grade. (Please note that the provisions of this policy do not apply to specialized self-supported educational programs such as the Executive MBA Program. Employees should consult with the Chief Academic Officer on their campus to determine eligibility.)

Full-time, nonacademic, and other academic (excluding faculty) employees, during the first year of employment and with approval from their supervisors, may register, at their own expense, for a job-related course and be allowed to take the course during work time for no more than one hour per day up to three hours per week.

#### **Cancellation of Registration**

Students who drop all of their classes prior to the first day of class will have their registration cancelled.

These students will receive a 100 percent refund (less the \$10 nonrefundable registration fee). Undergraduates whose fall or spring semester registrations are cancelled must apply to reenter the university before they can register for a subsequent semester or summer term. Graduate students whose registrations are cancelled can re-enroll without applying to be readmitted as long as they do so within three subsequent semesters (summer term included).

### **Resignation from the University**

A student may voluntarily resign from the university beginning with the first day of class through the final day for resigning shown in the "Academic Calendar". Resignation is initiated in the office of the student's academic dean. The student must obtain a resignation form and file the form with the Office of the University Registrar within 10 days after it has been endorsed by each administrative office indicated on the form. *Resignation is not complete until the form is submitted to the Office of the University Registrar*.

Students who absent themselves from the university without leave and without official resignation will not be assigned "W" grades and, at the end of the semester, normally will receive grades of "F" in courses for which they are registered.

Students who withdraw from the university without approval, or who are dropped from the university for any reason, may be ineligible for readmission for a semester or longer.

# **Academic Credit**

### **Year Classification of Students**

The number of semester hours of credit earned determines a student's year classification, as follows:

Freshman • fewer than 30 hours
Sophomore • at least 30, but fewer than 60
Junior • at least 60, but fewer than 92
Senior • 92 or more
Exception • A student in a five-year program with at least 60, but fewer than 136 hours, is a junior; with 136 or more, a senior.

See "Course Numbering System" for regulations governing the level of courses students may take, based on their classifications.

#### **Student Enrollment Status**

Students are classified as full-time, three-quarter time, and half-time in accordance with the following provisions:

STUDENT	SEMESTER/TERM	FULL-TIME	THREE-QUARTER TIME	HALF-TIME
Undergraduate	Fall Spring	12	9-11	6-8
Undergraduate	Summer	6	5	3-4
Graduate	Fall Spring	9	7-8	5-6
Graduate	Summer	6	5	3-4
Veterinary Medicine	Fall Spring Summer	10	8-9	5-7

#### Full-Time Students

- *Undergraduate*—To graduate in four years, a student should complete at least 15 hours per semester. Undergraduate students who carry 12 or more hours of resident credit in a regular semester or six hours in a summer term are considered full-time.
- *Graduate*—Full-time graduate students enroll in the Graduate School for at least nine hours of resident credit in the fall and spring (six hours in the summer term).

Only full-time students will be approved for campus employment or may represent LSU in any athletic, dramatic, literary, musical, or other university organization.

#### Part-Time Students

Undergraduate students are classified as part-time if they schedule or drop to fewer than 12 hours of coursework in a semester or in a summer term. Criteria for part-time status in the Graduate School are available from "The Graduate School" section of this catalog.

### **Maximum Credit Load for Undergraduates**

Each college establishes the number of semester hours of coursework required in each year of its curricula. *Registration for more* than 19 hours of degree credit in a regular semester requires the approval of the dean of the student's college. Dean's approval is also required for registration for more than 12 hours in the long summer session, more than six hours in the short session, or more than 12 hours in a combination of summer sessions. With dean's approval, students may schedule up to six hours in an intersession.

Full-time students who are doing unsatisfactory work because of a heavy academic load may be required by their college dean to withdraw from one or more courses, provided such action does not change their full-time status. Such mandatory withdrawals do not count toward the student's number of permitted "W" grades.

#### **Undergraduate Transfer Credit Policies**

The extent to which credit earned in other colleges and universities is accepted toward fulfilling degree requirements at LSU (including all campuses of the university) is determined by the dean of the college awarding the degree. Students may not receive credit for work taken concurrently at another college or university without prior written approval from their academic dean.

The Statewide Student Transfer Guide and Articulation System Matrices (Board of Regents' E-matrix) indicate transfer equivalences of courses among Louisiana's public colleges and universities and may be accessed through the Board of Regents' web page. The matrices are not all-inclusive; there are additional courses that articulate between campuses. Students are advised to contact their dean's office or the Office of Enrollment Management if they are unclear as to whether academic credit at other institutions is transferable.

Only work that is acceptable by the offering institution as baccalaureate degree credit is recognized. Credit earned in two-year technical or terminal degree programs which, when completed, results in an "associate in applied sciences" diploma may be accepted to the extent that the courses parallel baccalaureate degree work here, as determined by the appropriate department and subject to the normally applicable conditions.

Due to varying residency and senior college academic requirements, students should contact their academic counselor prior to earning credit from other institutions.

A maximum of one-fourth of the credit required for the degree may be earned through regionally accredited university correspondence study.

*General Education Credit* • Deans are to determine the applicability of transfer courses to a component of LSU's general education requirements.

If the college does not approve a transfer course for general education credit, the student may petition the Office of Academic Affairs for a decision.

*LSU Transcript*–Regardless of whether or not transfer credit fulfills degree requirements, all transfer courses accepted by the university are included on the LSU transcript.

#### **Auditors**

An *enrolled student* may be admitted to class as an auditor by obtaining written consent from the course instructor and the dean of the college offering the course. After scheduling the course, students must submit the required approvals to their deans' offices to change their enrollment from credit to audit. Other students who desire *only to audit* (and not to schedule any courses for credit) may obtain special enrollment forms from the Office of the University Registrar. Auditors will not receive credit for courses audited, although courses previously audited may later be taken for credit. See "Undergraduate Fees and Expenses" for a listing of fees for auditing courses.

Change in registration from audit to credit or credit to audit requires permission from the instructor of the course and the student's dean. Approval for change from audit to credit must be obtained no later than the final date for adding courses for credit as shown in the "Academic Calendar." A request for a change from credit to audit must be submitted no later than the final date for dropping courses without receiving a grade of "W."

#### **Distance Learning Programs Courses**

A Distance Learning Programs (DLP) course grade will be posted to the transcript when the course is completed. If a student takes the final examination by the last day of the final examination period of a semester/summer term, the grade will be posted to that semester/term. If the final examination is taken after that date, the DLP grade will be posted to the next regular semester or summer term. DLP grades will not be posted to Intersession. The grade will be used to determine academic action for registered students at the conclusion of that semester or summer term.

### **Grading Systems**

Faculty members must provide the university and the student with an individual evaluation of each student's work. At the beginning of each semester, faculty members must distribute written course syllabi in all courses, graduate and undergraduate, clearly stating the relative weight of the component factors of the final grade. While it is appropriate that the instructor should exercise subjective judgment in determining grades, particularly in "borderline" cases, the judgment should be based solely on academic considerations. *Because class absences are likely to affect a student's mastery of course content, they may be considered among these "academic considerations" in determining the final course grade. Therefore, instructors, at their discretion, may also include "unexcused" absences as component of the course grade, as long as attendance policies are spelled out clearly in the course syllabus at the beginning of the semester. Additionally, in 4000-level courses in which instruction of undergraduates for undergraduate credit and graduate students for graduate credit is combined, syllabi should clearly set forth any different expectations of performance by students in the two groups (beyond the expectation of a 2.00 minimum GPA for undergraduates and a 3.00 minimum GPA for graduate students).* 

Grades must not be utilized as coercive or punitive measures reflective of a student's behavior, attitude, personal philosophy, or other personal characteristics except as those qualities relate directly to the student's level of mastery of the course material.

On request, faculty should provide to students a review of all graded material, including final examinations, that contributed to the course grade and a review of the method by which the grade was determined.

Unreturned examinations and other graded material should be kept on file for at least six months following the end of the *academic term*. Faculty members who leave the campus during this period should file all course material in their departmental offices.

It is the right and responsibility of *faculty members* to determine and assign the grade for each student enrolled in their courses beyond the final date for withdrawing with a "W," as specified in the "Academic Calendar". The instructor's assignment of a grade is final; the grade may not be changed or altered except through the academic appeal procedure, following appropriate investigation.

In extraordinary circumstances that make it impossible for the instructor to fulfill the responsibility of determining a course grade, the department chair shall assign the grade. In such a case, the department chair may elect to award the grade of "P" (Pass). This "P" grade would be excluded from the normal limits on use of the pass-fail option indicated below. *Re-examination, special examinations, extra-credit projects, or extra laboratory hours cannot be made available to an individual student unless the same options are available to the entire class.* 

#### **Undergraduate Grades**

- The definitions for letter grades when used in undergraduate courses are presented below.
  - The letter grade A, including A+ and A-, denotes distinguished mastery of the course material.
  - The letter grade B, including B+ and B-, denotes good mastery of the course material.
  - The letter grade C, including C+ and C-, denotes acceptable mastery of the course material.
  - 0 The letter grade D, including D+ and D-, denotes minimally acceptable achievement.
  - The letter grade F denotes failure.

References to specific letter grades in university regulations and requirements refer to the full *letter grade range*. For example, if a grade of C is required, a student must achieve a final grade in the C range (i.e. C+, C, or C-) or better.

A grade of "**P**" (pass) denotes satisfactory completion (grade of "C" or better) of advanced-standing or proficiency examinations, pass-fail option courses, and certain other courses. A grade of "**NC**" (**no credit**) indicates that no credit is earned.

• **Grading scale**—A student's GPA is determined by the ratio of quality points earned to semester hours attempted. Quality points are assigned to letter grades using the following scale:

GRADE	HOURS CARRIED	QUALITY POINTS
A+	1	4.3
A	1	4.0
A-	1	3.7
B+	1	3.3
В	1	3.0
B-	1	2.7
C+	1	2.3
C	1	2.0
C-	1	1.7
D+	1	1.3
D	1	1.0
D-	1	0.7
F	1	0.0

All courses taken for which the grades above are assigned, *including repeated courses*, are considered in calculating GPAs. Grades of "P," "W," "I," and "NC" are not used in computing the official GPA and, therefore, do not carry quality points.

- Plus/Minus Grading and Regulations Applicable on a Course-by-Course Basis—All regulations applicable on a course-by-course basis and requiring a specific letter grade are interpreted to mean a specific *letter grade range*. For example, if a student must achieve a C or better in one course as a prerequisite for subsequent course, the student must achieve a final grade in the C range (i.e., C+, C or C-) or better.
- "W" grades—A "W" will be entered on a student's record for any approved course dropped within the dates specified in the "Academic Calendar". In extraordinary cases, upon written petition, the dean of the student's college may authorize a resignation and/or a drop from a course after the last date specified.
- Grades earned in courses offered by the Hebert Law Center, the School of Medicine, the School of Dentistry, and the School of Veterinary Medicine shall not be considered in computation of the GPA of an undergraduate student unless approval is given by the dean or director of the student's college/school to permit the student to use the professional courses as electives or to pursue a combined curriculum.

#### "I" Grades

Work which, because of circumstances beyond the student's control, is incomplete, may be marked "I" (incomplete) with the dean's office representative's permission.

#### **Student Expectations:**

- It is typically the responsibility of the student to initiate the request for the academic dean's authorization. Exceptions to this regulation will only be considered in extenuating, documented circumstances or for university sanctioned and administrative purposes.
- "I" grades are only considered for approval when an extraordinary situation occurs at or after the university's deadline to resign for the semester, as specified in the "Academic Calendar". It is the student's responsibility to promptly notify an authorized representative of their academic dean's office and provide appropriate documentation to support the "I" grade request. An approved "I" grade allows the student to make up coursework that was missed due to the extenuating documented circumstances.
- It is the student's responsibility to contact the instructor to discuss his/her academic status in the class. If the "I" grade request is approved, the student and the instructor will then create a timeline for completing all outstanding coursework.
- An "I" grade will allow a student additional time to complete work missed due to the extenuating and documented circumstance but does not guarantee a passing grade in the course.
- An "I" grade will be converted to "F" unless it is removed during the next regular semester in which the student is in residence in one of the university's campuses *prior* to the deadline for adding courses for credit, as specified in the "Academic Calendar."

#### **Faculty Expectations:**

- An "I" grade may be assigned for undergraduates only if the instructor receives appropriate authorization from the dean of the college in which the student is enrolled. If authorization is not received, the instructor is to consider the delinquent work to be of failing quality, and an "I" grade may not be assigned.
- In accordance with the LSU Code of Student Conduct, faculty should assign an "I" grade to any assignment referred to the Office of Student Advocacy and Accountability for alleged academic misconduct. If a student is found responsible for an academic violation, the outcome letter, issued by the Office of Student Advocacy and Accountability, will contain the final grade determination for the assignment and, potentially, the entire course.
- LSU Academic Programs Abroad course instructors may request permission to award "I" grades when the timing of a program does not match the university calendar except in cases of graduating seniors.

#### **Dean's Office Expectations:**

- A representative of the academic college in which the student is enrolled will gather pertinent information related to the "I" grade request, including the effective dates for the absence to the extent known and communicate the outcome to all parties.
- In extraordinary cases, the dean of the student's college may authorize that the "I" grade become permanent or that an extension of time for removing the grade be allowed.

### **Computation of the Grade Point Average**

For all academic purposes, except for determining recipients of the University Medal, GPAs shall be specified to three significant figures (two decimal places), with the last figure to reflect rounding from a four-significant-figure average (three decimal places) where possible. If the third figure after the decimal point is equal to or greater than five, upward rounding shall occur. If the third figure after the decimal point is less than five, it shall be dropped, regardless of what the fourth or subsequent figures may be. Thus, 3.9550 becomes 3.96, and 3.9549 becomes 3.95. In calculations to determine relative rank in class, a student's average may be carried to three decimal places.

Any GPA cited to only one decimal place (as 2.0) shall be construed to mean, mathematically, a figure accurate to two decimal places (as 2.00), regardless of the text.

### **Pass-Fail Option for Undergraduates**

Some courses have been approved to be graded pass-fail for all students enrolled. In courses with regular grading, students may petition for the pass-fail grading option, subject to the guidelines indicated below. In all undergraduate courses with pass-fail grading, the grade of "P" will be given for work of "C" quality or better. The grade of "F" will be given for work below "C" quality.

Students may be registered in several courses regularly graded pass-fail during a given semester and still elect to take an additional course under the pass-fail option program.

Courses passed with a grade of "P" may be offered for degree credit, but the grade will not be considered in computing the GPA. An "F" in a pass-fail course will be treated as any other "F," both with regard to credit earned and to GPA calculation.

Limited use of a pass-fail option is permitted at the discretion of the individual colleges and schools, subject to the following policies.

- The pass-fail option is available only to those students whose GPA in the university (all LSU campuses) is 2.50 or better.
- The pass-fail option is allowed only for unrestricted electives or other courses approved by the student's major department.
- No more than 12 semester hours of degree credit in the pass-fail option program are permitted; pass-fail enrollment may not exceed one course per semester, excluding those courses normally graded pass-fail.
- Enrollment under the pass-fail option program must have the prior approval of the instructor, the chair of the student's major department, and the dean of the college in which the student is enrolled.
- Through the last day to add courses for credit, students may, with appropriate approval, change from pass-fail to graded status and vice versa. No change in the grading option may be made after the last day for adding courses for credit.

For information about the pass-fail option for graduate students, see "The Graduate School".

#### **Grade Reports**

Final and midsemester grades are available through myLSU. Students may request, via myLSU, that the Office of the University Registrar mail them reports of their final grades, provided their financial accounts with the university (all LSU campuses) are current.

### **Transcripts**

Upon written request and via myLSU, former and currently enrolled students may obtain complete transcripts of their academic records, provided they are current in their financial obligations to the university (all LSU campuses). Requests must include the signature of the student. Partial transcripts are not issued. Normally, two days of processing are required after the transcript request is received. At the beginning or end of a semester, considerably more time may be required. Telephone requests for transcripts cannot be honored.

# **University Undergraduate Scholastic Requirements**

### Definitions

*GPA* • Grade point average is calculated by dividing the total number of quality points earned by the total number of semester hours attempted. For example, a student who has attempted 46 hours and has earned 122 quality points has a GPA of 2.65.

Cumulative GPA • The cumulative GPA is calculated on work attempted at all colleges and universities attended.

LSU GPA • The LSU GPA is calculated on all work attempted at the university (all LSU campuses).

### General

The following university scholastic requirements apply to all students, except those enrolled as "visiting" students. For details regarding the use of Distance Learning Programs grades to determine scholastic standing, refer to "Undergraduate Admissions" of the catalog. Courses taken at Southern University through the LSU-SU Cooperative Program, and Baton Rouge Community College through the LSU-BRCC Cross-Enrollment Program, are recorded as transfer credit. Credit taken through these co-op programs are calculated in only the cumulative GPA.

A student on University Scholastic Warning, Probation, or Drop will have a notation of the academic status recorded on the official LSU transcript.

#### **University Scholastic Warning**

At the end of the fall or spring semester, intersession, summer term, or LSU Online module, students will be placed on University Scholastic Warning if their GPAs are one to nine quality points below a 2.00 on all work attempted or on all work attempted in the university (all LSU campuses). A notation to that effect will be recorded on their transcripts. Students will remain on University Scholastic Warning until they bring their GPAs up to 2.00, or are placed on University Scholastic Probation.

#### **University Scholastic Probation**

At the end of the fall or spring semester, or an LSU Online module, students will be placed on University Scholastic Probation if their GPAs are 10 or more quality points below a 2.00 on all work attempted or on all work attempted in the university (all LSU campuses). Students will remain on University Scholastic Probation until they have cumulative averages of 2.00 or higher on all college work attempted and on all work attempted in the university (all LSU campuses).

Students who have been removed from University Scholastic Probation will be placed on University Scholastic Warning or Scholastic Probation again at the end of any fall or spring semester, or LSU Online module, in which their LSU or cumulative averages are less than 2.00 as follows:

- If the student's LSU or cumulative averages are one to nine quality points below a 2.00, they will be placed on University Scholastic Warning.
- If the student's LSU or cumulative averages are ten or more quality points below a 2.00, they will be placed on University Scholastic Probation.

### **University Scholastic Drop**

Students on University Scholastic Probation will be dropped from the university at the end of any fall or spring semester, or LSU Online module, if their semester or module average is less than 2.00 unless application of the Grade Exclusion Policy results in the student's LSU and cumulative GPAs being recomputed to 2.00 or higher.

Resident students dropped for university scholastic deficiency may enroll, with permission of their dean, in the summer term at LSU. If their quality point deficits are totally removed during the summer term, they may petition their dean to allow them to enroll for the fall semester. Students who remove their quality point deficiency and complete all degree requirements may not graduate at the end of the summer term. They must register for *degree only* during the subsequent fall semester and receive their degrees at December Commencement.

Resident students dropped for university scholastic deficiency who are already enrolled in an intersession, may continue their enrollment. If their quality point deficits are totally removed during the intersession, they may enroll for the subsequent semester or summer term. Students who remove their quality point deficiency and complete all degree requirements may not graduate at the end of an intersession. They must register for degree only during the subsequent semester or summer term.

### The Summer Term/Intersessions

Resident students cannot be placed on University Scholastic Probation or dropped from the university on the basis of work taken during the summer term or an intersession. They can, however, be placed on University Scholastic Warning status.

Work taken during the summer term can result in resident students being removed from University Scholastic Warning status, Scholastic Probation, or Scholastic Drop status.

Work taken during an intersession can result in resident students being removed from University Scholastic Warning or University Scholastic Probation.

#### **Re-entry after Scholastic Drop**

Resident students dropped for the first time for academic reasons can be considered for readmission when they have been out of the university (all LSU campuses) for one regular semester.

LSU Online students dropped for the first time for academic reasons can be considered for readmission when they have been out of the university (all LSU campuses) for two consecutive modules.

Resident and LSU Online students dropped the second or subsequent time for academic reasons must remain out of the university (all LSU campuses) for one calendar year.

In either instance, readmission may be delayed or denied at the discretion of the dean of the college in which the student desires to enroll. Students entering the university after University Scholastic Drop will be admitted on University Scholastic Probation. Reinstatement after a University Scholastic Drop (see "Appeal of Academic Ineligibility to Enroll") will not remove the drop notation from the transcript.

### **College Scholastic Requirements**

Students may also be placed on College Scholastic Probation or College Scholastic Drop status on the basis of unsatisfactory progress toward meeting the specific requirements of their academic program. College Scholastic Requirements differ from University Scholastic Requirements in that they apply only while a student is enrolled in the college that imposed the academic action. College Scholastic Probation and College Scholastic Drop are not noted on the official LSU transcript. Students should refer to the college sections for regulations regarding college academic action.

### **Academic Renewal**

Under specified conditions, undergraduate students who have not been enrolled in any credit-bearing coursework for a period of at least five consecutive calendar years may, at the time of application for admission to the university, declare academic renewal. Under this policy all college work taken at an earlier date is eliminated from computation of the grade point average *and cannot be applied toward a degree at LSU*. Such work will remain on the student's scholastic records and transcripts, but *will not* be used in the computation of the grade point average for honors or the University Medal. It may, however, be used to compute the grade point average for admission to graduate and professional study.

Students qualifying for academic renewal will be admitted on scholastic probation. Details of this policy may be obtained from the Office of Enrollment Management.

Courses earned under the LSU 25+ program are not eligible for the academic renewal policy.

### LSU Second Chance

Students who have declared academic renewal may petition the dean of the student's major college to apply for readmission through the LSU Second Chance application. If the application is accepted, all previous work remains on the student's scholastic records and transcripts but will not be used in the computation of the grade point average. However, previous grades of "C-" or better are displayed as "P" grades and applied to total hours earned, which can then be applied to degree program requirements. Previous grades of "D+" or lower will not be applied to the total hours earned.

Students must meet the residency requirements for the university before graduation. Refer to the "Academic Requirements for Obtaining a Degree" section for specific university residency requirements.

Only students who were admitted to LSU and left without a degree are eligible for the LSU Second Chance. Transfer students and students who have a degree from LSU are not eligible for consideration.

Once a student invokes the LSU Second Chance, it cannot be revoked and can only be awarded once. It may not be invoked retroactively. Students will not be eligible for Latin Honors or the University Medal.

Students qualifying for the LSU Second Chance will be admitted on scholastic probation. Details of this program may be obtained from the Office of Enrollment Management.

### **Appeals and Appeal Review**

LSU provides students with an appeal procedure for questioning the application of any regulation, rule, policy, requirement, or procedure as it applies to the individual student in their capacity as a student.

Most undergraduate student academic appeals are routed directly to the college in which the student is currently enrolled for consideration. See below for a list of common types of academic appeals and the office responsible for the review of said appeal:

TYPES OF APPEAL	OFFICE RESPONSIBLE FOR APPEAL REVIEW	
Appeal of Academic Ineligibility to Enroll	See below for full procedure. The college in which the student was last enrolled or the college in which the student is seeking admission acceptance	
Comprehensive Academic Tracking System (CATS) Appeal (off-track twice in the major)	Senior college or school offering the student's major	
Grade Appeal	See below for full procedure. Begins with faculty member who assigned the grade at issue	
Appeals for an exception to the General Education requirements	Appeals are submitted through the college or school in which the student is enrolled. Final decision made by the Faculty Senate Committee on General Education. See the "The General Education Component of Undergraduate Education" section for full procedure.	
Repeating a course in which a failing grade was earned twice	Senior college or school offering the student's major	
Retroactive add of a course/drop of a course with or without a W grade/resignation (i.e., dropping all courses from a semester) pertaining to a semester during the last academic year	The college or school in which the student was enrolled during the semester being appealed	
Grade Exclusion Appeal	Appeals are submitted through the college or school in which the student is enrolled and forwarded to the Office of the University Registrar for review	
Late Registration Service Charge Appeal	Appeals are submitted through the Office of the University Registrar and forwarded to the Office of Bursar Operations for review	
Distance Education Appeal	For distance education students residing in an NC-SARA member state, who have issued complaints through the institution's standard procedure for resolution of student grievances, the additional final step in the appeal process, excluding appeals about grades and student conduct penalties, is review by the Louisiana state portal agency. https://regents.la.gov/divisions/planning-research-and- academic-affairs/institutional-licensure/sara/	
Retroactive add of a course/drop of a course with or without a W grade/resignation or any academic appeal pertaining to a semester, term, or module over one academic year ago	Office of Academic Affairs	

Other types of academic appeals exist. In addition, the colleges, schools, and offices may have specific guidelines for the submission of certain appeals. Students should contact a representative of the appropriate college, school, or office directly for guidance or for further information prior to appeal submission.

Students who have had an appeal denied in a college/school/office *and* who believe that a serious procedural error or an abuse of discretionary authority occurred in the review process may file an appeal for consideration in the Office of Academic Affairs. The decision by the Executive Vice President and Provost shall conclude the matter, subject to the right of the President to review the case, at the President's discretion. The student does not have a right to review by the President.

#### PS-48: Student Appeals

PS-48 is a university policy that establishes procedures that a student may use to formally request the review of the application of any university regulation, rule, policy, requirement, or procedure not otherwise covered by an established procedure as it applies to that individual student.

#### **Grade Appeals**

The university implemented a plus/minus grading system with the 2015 fall semester. The plus/minus grading system will not be used when grades are changed for courses taken prior to the 2015 fall semester.

Appeals of final grades must be initiated by the student by requesting in writing or actually attending a meeting with the faculty member who assigned the grade at issue within 30 calendar days after the first day of classes in the next regular semester. For students in the LSU Online programs, appeals of final grades must be initiated by the student in writing with the faculty member who assigned the grade by the end of the first week of the next regular module. The procedure is as follows:

• The student and the faculty member must have a discussion and attempt to arrive at a solution. For the purposes of this policy, a "discussion" can be accomplished via a face-to-face meeting or through other forms of communication such as letters, emails, conference calls, video/web conferences, etc. Although each may have an advisor present, it is believed that under most circumstances, the meeting will be more productive if only the student and the faculty member are present. To the extent an advisor is utilized at this or any stage of the procedure, the advisor is not allowed to argue, advocate, make statements, present information, question witnesses, or raise objections on behalf of either party.

If the faculty member is on sabbatical leave or is otherwise unavailable, his/her place will be taken by a faculty member appointed by the department chair or his/her designee. The faculty member must inform the student of his/her decision within seven calendar days. If the decision reached requires change in an official university record, the faculty member must comply with all university regulations and procedures necessary to accomplish the change.

If an administrative officer (department chair, dean, executive vice president and provost) is the faculty member who assigned the grade that is appealed, that officer should recuse himself or herself from the appellate process in any capacity other than as the faculty member who assigned the grade; his or her place in the procedure will be taken by a faculty member appointed ad hoc by the executive vice president and provost or the president, as appropriate.

A change of grade is accomplished by filing a "Grade Correction Report." A satisfactory reason for the change is "academic appeal." The department chair and/or the student's dean (dean of the college in which the student is enrolled) may request documentation of the facts of the matter to facilitate any decision with respect to approval of the grade change.

• If the matter is not resolved between the student and the faculty member, and the student wishes to pursue the appeal, he or she shall make a written request to the chair of the department in which the course was taught asking for a meeting of the department chair, the faculty member, and himself or herself. The faculty member will provide the name of the appropriate department chair. The written request should clearly state the purpose of the meeting and should indicate the faculty member's name; however, it should not go into detail as to justification for the appeal. This request must be submitted within 45 calendar days after the first day of classes of the next regular semester. For students in the LSU Online programs, this request must be submitted by the 15th calendar day of the next regular module (starting with the first day of class).

The department chair shall arrange a meeting within 14 calendar days from the date of receipt of the request. Meetings may be face-to-face or via video/web conference. At this meeting, both the student and the faculty member may be accompanied by an advisor. At the close of the meeting, or within seven calendar days thereafter, the department chair shall make a decision. If a decision is made at the close of the meeting, it is to be given orally to all present. If the

matter is taken under advisement, the department chair shall inform all parties, including the student's dean, of his or her decision in writing. If the decision reached requires change in an official university record, the faculty member must comply with all university regulations and procedures necessary to accomplish the change.

• Either the student or the faculty member may appeal the decision reached by the department chair to the dean of the college in which the department offering the course is located. The dean's name will be furnished by the department chair. Appeals concerning courses numbered 8000 or above should be directed to the dean of The Graduate School.

The appeal must be in writing and must be submitted within 14 calendar days after notification of the department chair's decision. The appeal must contain the following information: (1) a statement of the action(s) complained of; (2) the relief requested; and (3) a specific statement of the reasons supporting the relief sought.

Upon receipt of the appeal, the dean must promptly forward copies to the department chair and the other party concerned, who must promptly reply with *individual written statements* supporting their positions. Copies of the written replies must be forwarded to the appellant.

When the replies have been received from the department chair and the other party, the appellant may choose one—and only one—of the following options: (1) the dean will decide the question on the basis of the written appeal and the written replies from the other party and the department chair; (2) the dean will meet, either in person or via video/web conference, with all parties concerned, who may be accompanied by advisors if desired, and, after discussion, reach a decision; (3) the student, the faculty member, or the department chair may request that the dean refer the appeal to a hearing panel for its recommendation. Such a request must be made when the appeal is submitted to the dean.

Hearing panels to consider grade appeals will be appointed by the dean and shall be composed of three faculty members selected by the dean, with no more than two from the same department, and two students appointed by the president of the college's student governing body. The dean should designate the chair of the panel.

The panel shall hold a hearing with the department chair, the faculty member, and the student, each of whom may be accompanied by an advisor. The hearing may be held in person or via video/web conference. After deliberation, the panel will make its recommendation in writing to the dean. Copies of the recommendation and the dean's final decision must be given to all parties, including the student's dean.

Regardless of the method used, the dean must make his or her decision within a reasonable time from the date of receipt of the appeal. The decision must be written, listing the reasons supporting the decision; copies must be given to all parties, including the student's dean. If the decision requires change in an official university record, the faculty member must comply with all university regulations and procedures necessary to accomplish the change.

• Any party to the appeal who believes that a *serious procedural error* occurred or that there was an *abuse of discretionary authority* in reaching the decision may file with the executive vice president and provost a written petition for review. This petition, which must be filed within seven calendar days after receipt of the decision, must contain a complete statement of the alleged serious procedural error, or examples of abuses of discretionary authority complained of, and also must contain reasons for the relief sought. The petition must be accompanied by all documents produced in the appeal. Copies should be sent to all parties to the appeal and to the student's dean.

The executive vice president and provost or the provost's designee shall decide within 30 calendar days after receipt of the petition whether further action should be taken. In reaching this decision, he or she may ask other parties to the appeal to make written replies to the request for a review, or these parties, on their own, may make written replies. If the decision is reached that a review is not justified, the student and all other parties, including the student's dean, will be so notified.

If the executive vice president and provost or his or her designee decides to respond favorably to the petition for review, he or she may hold a formal meeting with all parties and their advisors, interview any persons who may have relevant information, and/or review and consider any related records or documents.

Once a decision is reached, the executive vice president and provost will notify all parties, including the student's dean, of his or her decision. The decision of the executive vice president and provost shall conclude the matter, subject to the

right of the president to review the case. The president will consider the case only on the basis of a petition for review following the procedure outlined above.

This grade appeal procedure is an academic process designed to provide students with the ability to appeal a final grade only. Interim grades and grades on particular exams, papers, projects, and other assignments may only be appealed to and discussed with the faculty member who assigned the grade. Any questions, regarding the interpretation or implementation of the grade appeal procedures shall be resolved by the executive vice president and provost or his or her designee.

### **Appeal of Academic Ineligibility To Enroll**

An undergraduate student dropped from the university because of scholastic deficiency may appeal the ineligibility based on extenuating circumstances. Such appeals must be submitted to the office of the student's dean at least seven calendar days prior to the beginning of the semester/summer term in which the students wishes to enroll. The appeal should be in the form of a letter to the dean, accompanied by documentation of the extenuating circumstances.

Appeals may be reviewed by the dean or, at the option of the dean, by a college committee established for that purpose. In the latter case, the committee will make a recommendation to the dean. Final authority in the college rests with the dean. If the appeal is approved:

- the student is eligible to enroll at LSU on academic probation for the next semester/term;
- the dean may set conditions based on the student's situation, which may include specific academic requirements the student must meet. The student will be informed of any conditions in writing; and
- the student's transcript will carry a notation that the student was dropped but reinstated, based on appeal.

If the dean denies the appeal, the student may submit it to the Office of Academic Affairs for review, along with a statement of the reasons why the Office of Academic Affairs should consider the appeal. Final authority rests with the executive vice president and provost.

### **Undergraduate Credit for Repeated Courses Policy**

A student may not repeat a course in which a grade of "C" or better has been earned unless the catalog description indicates that the course may be repeated for credit or the student's dean approves the repetition for some special reason. If a student registers for a course in violation of the above policy, the student's dean may deny degree credit for the course.

Unless otherwise stated in the course description, credit will be awarded only once for a course that is repeated. When students are permitted to repeat for credit a course previously taken, only the last grade determines acceptability of the course for degree credit. The last grade earned in a repeated course will be the grade applied toward graduation, even if it should be lower than the previous grade. If a student receives a failing grade when repeating a course for which a passing grade had been previously earned, the student will lose the credit previously earned for the course.

All course attempts will be recorded on the LSU transcript.

### **Undergraduate Grade Exclusion Policy**

#### The Office of the University Registrar maintains a list of courses ineligible for grade exclusion.

As of the 2013 fall semester, the university has implemented the Grade Exclusion Policy. Under this policy, students may improve the undergraduate LSU and cumulative GPAs by repeating a maximum of three courses (up to 12 credit hours) in which a grade of "D" or "F" was received and requesting that the repeat grade be the only one that is used in the calculation. Students can exceed the total hours (more than 12 hours) in completing the third course, but students cannot take a third course if they have already excluded 12 hours. The following rules apply to this policy:

- students must file a written petition to invoke the policy with the dean of the college in which the student is enrolled by the <u>last day to add courses in the semester or term in which the subsequent attempt is made;</u>
- petitions filed by student athletes must be approved by the both the dean of the college in which the student is enrolled and the Academic Center for Student Athletes;
- once a petition to exclude a grade has been accepted by the dean of the college in which the student is enrolled, it may not be changed;
- only three such requests are available to students in their undergraduate careers;
- the policy will apply to courses attempted prior to the 2013 fall semester or thereafter, but the subsequent attempt(s) must be made beginning with the 2013 fall semester;
- the repeated grade must be in the same course rubric and number taken at LSU (if a course is cross-listed, the course must be repeated under the same rubric as it was originally attempted);
- the policy will apply to LSU dual enrollment courses;
- the policy can only apply to courses that have been scheduled (for the current or a future term);
- waitlisted courses are not eligible for grade exclusion;
- transfer courses are not eligible for grade exclusion;
- special topics, independent study, and research type courses are not eligible for grade exclusion;
- variable credit courses are not eligible for grade exclusion;
- courses in which incomplete grades have been awarded are not eligible for grade exclusion;
- courses offered through the Division of Continuing Education are not eligible for grade exclusion;
- academic programs may opt to exempt certain courses from this policy;
- withdrawal from a course for which an exclusion has been approved will not result in the original grade being excluded, but will count toward the three courses or 12 credit hour exclusion limit;
- once a grade exclusion is applied to a course, the quality points and credit hours attempted and earned will be removed from only the calculation of the LSU and cumulative GPAs. Past semester GPAs will not be recalculated;
- grade exclusions do not retroactively change the status of the student's semester academic honors (e.g., Dean's List) or result in a refund of tuition or fees;
- grade exclusions do not result in a recalculation of a student's academic standing (e.g., scholastic warning, probation, or drop) at the end of a previous semester or term;
- the exclusion adjusted GPA <u>will not</u> be used in determining both Latin Honors and University Medalists. <u>All grades</u> will be used to determine Latin Honors and University Medalists.
- the excluded grade will be annotated on the transcript with the symbol "E" to denote that the grade was excluded;
- upon communication to the University Registrar by the Dean of Students or designee, the policy may not be used to exclude a grade assigned as a result of academic dishonesty;
- students may invoke the policy multiple times for the same course;
- once a student has earned a degree, the grade exclusion policy cannot be invoked with respect to any course attempted prior to earning the degree.

Many graduate and professional schools re-compute GPAs in the process of considering an applicant for admission to such programs. The re-computation of GPAs may include restoring the cumulative GPA effects of initial attempts at courses repeated under this policy.

### **Undergraduate ''F'' Grade Policy**

Students who fail a course twice at LSU may not retake the course without approval from the dean of the student's major college. Appeals to enroll in a course after having failed the course twice need to be initiated immediately following the semester or summer term in which the second failing grade was earned, but no later than the first class day of the next semester or summer term enrolled.

Students who receive an "F" in a course must repeat the course *within the campuses of the university* in order to receive credit and quality points for it. With *prior* concurrence of the chair of the department in which the course is offered and the dean of the college in which the student is enrolled, credit and quality points may be approved in individual cases for courses repeated outside the campuses of the university.

### **Undergraduate Examinations**

### **Credit Examinations**

*LSU Credit* • Students awarded advanced-standing or proficiency credit on other campuses within the university can transfer that credit to LSU if the basis for awarding the credit is comparable to that on this campus. The student is responsible for requesting that the registrar on the other campus send an official transcript to the LSU Office of Enrollment Management showing the credit earned.

*Credit from Other Collegiate Institutions* • Credit earned through departmental proficiency examinations administered by other accredited colleges/universities and listed on the official transcript is evaluated in accordance with policies applying to resident credit earned at those institutions. Grades earned through credit by examination are not included in the computation of the GPA.

Subject Examinations • Transfer students who have taken subject examinations in the College Level Examination Program (CLEP) or who have participated in the Advanced-Placement Program of the College Board should have their examination scores sent directly to the Office of Enrollment Management for evaluation.

Transfer credit is not awarded for work or travel experience, except as validated through appropriate departmental proficiency examinations at LSU.

*Credit by Examination* • Credit by examination is limited to 30 semester hours and cannot be used to reduce the minimum residence requirement for graduation.

- With approval of the appropriate academic dean, credit earned through advanced-placement courses of the College Board will be excluded from the 30-semester-hour credit limit.
- Credit exams will not be used to meet the 15-hour requirement in determining honors or dean's list eligibility.
- If a grade of "C" or higher is earned on the examination, a mark of "P" and regular credit in the course are entered on the student's transcript. If a grade lower than "C" is earned, only the fact that the examination has been attempted will be recorded on the academic record; credit will not be allowed. The grade "NC" will appear on the LSU transcript.
- A student may take a proficiency examination in a particular course only once.

*Proficiency Examinations* • A limited number of proficiency examinations are offered through academic departments. Proficiency tests are considered equivalent to final examinations in college-level courses. Ordinarily, students must obtain permission from their academic deans and from the chairs of the departments offering the courses prior to taking the examinations. Students may apply for these tests at any time after they have been admitted to the university. Tests are administered subject to the conditions specified below.

- The student must have been admitted to the university (includes all LSU campuses) and must be in good standing.
- To initiate the examination, permission must be obtained from the appropriate dean and the chair of the department offering the course. After authorization is granted, the Office of the University Registrar will issue an Advanced-Standing or Proficiency Exam Grade Report upon payment of the required fees. No instructor may give a proficiency examination until he/she has received the official grade report.

- Students must pay a fee of \$20 for each examination in which credit by proficiency examination is being sought; an additional \$20 processing fee is assessed for each examination administered by the Center for Assessment & Evaluation.
- If a grade of "C" or higher is earned on the examination, a mark of "P" and regular credit in the course are entered on the student's transcript. If a grade lower than "C" is earned, only the fact that the examination has been attempted will be recorded; credit will not be allowed. The grade "NC" will appear on the LSU transcript.
- A student may take a proficiency examination in a particular course only once.
- Course credit will be posted to the semester that corresponds to the date entered in the date field on the Advanced-Standing or Proficiency Exam Grade Report, provided the student is enrolled.
- Students are not permitted to schedule proficiency examinations in courses in which they have earned unsatisfactory grades.
- Credit earned through proficiency examinations will not be used in computing the student's GPA.

#### **Midsemester Examinations**

Faculty must report midsemester grades in all undergraduate courses. These grade sheets are available through myLSU.

# **Final Examinations**

### **Concentrated Study Period**

The five-day period during the fall and spring semesters (Wednesday through Sunday) immediately preceding the week of final examinations will be set aside as a concentrated study period. The day preceding the final exam period during the Summer Term Session A will be set aside as a concentrated study day.

To promote a learning-centered environment, graded coursework (including but not limited to tests, exams, quizzes) is not permitted during concentrated study period. Exceptions to this policy include: laboratory courses; graduate and professional courses; presentations, papers, and projects identified on the syllabus on the first day of class; and participation. During this time, no extracurricular student activities, such as social and athletic events, will be held on or off campus.

Any exceptions to this policy *must receive prior approval from the Office of Academic Affairs*. Students should report any violations of this policy to the Office of Academic Affairs. This can be done through the Student Appeals process.

### **Final Examinations**

The fall and spring semester final examination period will be comprised of six days (Monday through Saturday). Final examinations are required in all courses. When a final examination is inappropriate because of the nature of the course, exceptions to this requirement may be made upon approval of the appropriate department chair and dean/director.

TERM	FINAL EXAMINATION PERIOD
Summer term – Session A	The two days following the concentration study day
Summer term – Session B	The Saturday after the last class day
Intersessions	The day after the last class day

The final examination period for other terms are as follows:

Final examinations must be given during the published dates for the final examination period.

A final examination is defined as the last in a series of major tests specified in the course syllabus. It need not be comprehensive. If the course syllabus does not call for a final examination, the last major unit examination is to be considered the final examination and must be given during the final examination period. When a series of major tests is scheduled in addition to the

final examination, the last of the major test series may not be given during the concentrated study period. Exams and performances in laboratory-type courses may be given or required during the concentrated study period.

A student who, because of illness or other valid reason, is *absent* from any final examination may take a special examination only with authorization of the dean of the student's college.

During this time, no extracurricular student activities, such as social and athletic events, will be held on or off campus.

## **Privacy and Release of Student Education Records**

The Family Educational Rights and Privacy Act of 1974 (sometimes referred to herein as "the Act"), as amended, sets forth requirements designed to protect the privacy of student education records. The Act gives parents certain rights with respect to their children's education records. These rights generally transfer to the student when he or she reaches the age of 18 or attends post-secondary (beyond 12th grade) school. The law governs access to records maintained by educational institutions and the release or disclosure of certain information from those records. This notice is published in each "Registration Schedule of Classes" to explain the rights of students with respect to records maintained by Louisiana State University and A&M College ("LSU" or "the university"). It also outlines LSU's procedures to comply with the requirements of the Act. Copies of the Act, the Federal Regulations adopted pursuant to it, and this notice are available for viewing on LSU's website (www.lsu.edu/registrar), and in the Office of the University Registrar, Room 112, Thomas Boyd Hall, Baton Rouge, LA 70803.

## Definitions

#### I. EDUCATION RECORDS

1. The meaning of "education records" is, with certain exemptions as listed below, those records, files, documents, and other materials which contain information directly related to a student, and are maintained by any employee or agent of the university. The following categories of information are exempted and are not considered to be "education records":

- Records made by university personnel which are in the sole possession of the maker and are not accessible or revealed to any other person except a temporary substitute of the maker.
- Records maintained by the LSU Police Department for law enforcement purposes.
- Medical and counseling records used solely for treatment. (Medical records may be personally reviewed by a physician of the student's choice.)
- Records of student workers related exclusively to the student's employment with the university.
- Records only related to a former student (alumni records) that are not directly related to the student's attendance as a student. Records of that individual while a student continue to be considered education records.

2. All records pertaining to students which are maintained by university offices are official university records, and as such, remain the property of the university.

3. Each university unit has an obligation to keep a record of requests for access to, and disclosures of, personally identifiable information in student records information except when the request is from the student, a university official with a legitimate educational interest, someone requesting directory information, or related to a request with written consent from the student. Students have the right to review this record of requests and disclosures of student record information.

#### II. PERSONALLY IDENTIFIABLE INFORMATION

Data or information which includes, but is not limited to the following:

- The student's name.
- The name of the student's parents or other family members.
- The address of the student or the student's family.
- A personal identifier such as the student's Social Security Number, LSUID, or biometric record.
- Other indirect identifiers, such as the student's date of birth, place of birth, mother's maiden name.

- Other information that alone or in combination, is linked or linkable to a specific student that would allow a reasonable person in the school community, who does not have personal knowledge of the relevant circumstances, to identify the student with reasonable certainty.
- Information requested by a person whom the university reasonably believes knows the identity of the student whom the education record relates.

#### III. STUDENT

Any individual who is or has been in attendance at LSU and regarding whom LSU maintains education records.

## **Policy Detail**

#### I. RIGHT TO INSPECT AND REVIEW

Students are granted the right to inspect and review all of their education records, except the following:

- Financial records of parents.
- Confidential letters and statements of recommendation placed in education records prior to January 1, 1975.
- Confidential letters and statements of recommendation for admission, employment, or honorary recognition placed in education records after January 1, 1975, for which students have waived their right of access.

#### II. WAIVER OF RIGHTS OF ACCESS

Students may waive their right of access to confidential letters and statements of recommendation. Even if the student signs a waiver, upon request, the names of all persons making confidential recommendations will be made available. Employees or agents of the university may not require a student to waive his or her right of access for receipt of university benefits or services.

#### III. PROCEDURES FOR INSPECTION AND REVIEW

- 1. Students have the right to inspect and review education records within 45 days after receipt of the request for access. Requests to review records must be made separately, in writing, to each office maintaining records. That office will make arrangements to comply with the request as expeditiously as possible not later than 45 days after receipt of the request. If the records are not maintained by the office to which the request was submitted, that office shall so advise the student, and the student shall address his or her request to the appropriate office.
- 2. Information contained in education records will be fully explained and interpreted for students by university personnel assigned to, and designated by, the appropriate office.
- 3. Students have the right to review only their own records. When a record contains information about more than one student, disclosure cannot include information regarding the other student(s).
- 4. The university reserves the right to deny copies of records, including transcripts, not required to be made available by the Act if the student has an unpaid financial obligation to the university.

#### IV. RIGHT TO CHALLENGE INFORMATION IN RECORDS

- 1. Students have a right to challenge the content of their education records if they consider the information contained therein to be inaccurate, misleading, or in violation of the student's privacy rights.
- 2. This process includes an opportunity for amendment of the records or insertion of written explanations by the student into such records.
- 3. Students challenging information in their records must submit, in writing, a request for a hearing to the appropriate office maintaining the record, listing the specific information in question and the reasons for the challenge.
- 4. Within 45 days of receipt of the written request for hearing, the university will inform the student of the date, place, and time of the hearing and the identity of the official in charge of the hearing. The notice will be mailed to the student at least two weeks in advance of the hearing.
- 5. The right to challenge grades does not apply under the Act unless the grade assigned was inaccurately recorded, under which condition the record will be corrected.

#### V. PROCEDURES FOR HEARING TO CHALLENGE RECORDS

1. Students challenging information in their records must submit, in writing, a request for a hearing to the appropriate office maintaining the record, listing the specific information in question and the reasons for the challenge.

- 2. Within 45 days of receipt of the written request for hearing, the university will inform the student of the date, place, and time of the hearing and the identity of the official in charge of the hearing. The notice will be mailed to the student at least two weeks in advance of the hearing.
- 3. Hearings will be conducted by a university official who does not have a direct interest in the outcome of the hearing.
- 4. Students shall be afforded a full and fair opportunity to present evidence relevant to the reasons for the challenge, as referenced in item IV. The student may be assisted by individuals or an attorney at his or her expense.
- 5. The hearing officer will render a decision, in writing, noting the reason and summarizing all evidence presented within 30 days of the hearing. The decision will be based solely on the evidence presented and will include a summary of the evidence and the reason(s) for the decision.
- 6. Should the hearing be in favor of the student, the record shall be amended accordingly and the university shall notify the student of the amendment in writing. Should the request be denied, the student may choose to place a statement with the record commenting on the accuracy of the information in the record and/or setting forth any basis for inaccuracy. When disclosed to an authorized party, the record will always include the student's statement and the hearing officer's decision, as long as the student's record is maintained by the university.
- 7. If students have questions regarding the procedure for challenging records, they should contact the Office of the University Registrar at registrar@lsu.edu or 225-578-1690.

#### VI. CONSENT FOR RELEASE REQUIRED

Written, dated, and signed consent must generally be obtained from students for the release of information from education records, specifying what is to be released, the reasons for release, and name of the party or class of parties to whom the record are to be released, with a copy of the record sent to the student if he or she desires.

#### VII. RELEASE WITHOUT CONSENT

- 1. The requirement for consent does not apply to the following:
  - Requests from school officials who have a legitimate education interest on a "need to know" basis. School officials are members of the faculty and staff of LSU, including student employees or agents of the university, as necessary or appropriate, to conduct official business, as authorized by the university. Legitimate educational interest includes performing a task related to the regular duties of the employee or agent, the student's education, the discipline of a student, a service or benefit for the student, or maintaining safety and security of the campus.
  - Requests from a person employed by or under contract with the university to perform a special task.
  - $\circ$  To public officials as specified in the Act.
  - To agencies or institutions that have requested records in which a student seeks or intends to enroll or is already enrolled so long as the disclosure is for purposes related to the student's enrollment or transfer.
  - To organizations for use in studies designed to develop, validate, or administer predictive tests, administering student aid programs, and improving instruction. Such agencies must agree not to divulge personally identifiable records to third parties and must agree to ultimately destroy these records.
  - Requests in compliance with a judicial order or lawfully issued subpoena, provided the university makes a
    reasonable attempt to notify the student in advance of compliance (except in certain cases involving grand
    jury subpoenas and subpoenas issued for law enforcement purposes and the court has ordered that the
    existence of the subpoena not be disclosed); or, when the university is involved in a legal action with a parent
    or student, where disclosure to the court, without a court order or subpoena, of records that are relevant for
    the university to proceed as plaintiff or to defend itself is permissible.
  - To comply with a court order obtained under the USA PATRIOT Act of 2001 for education records considered relevant to a terrorism investigation or prosecution, without advance notice to the student.
  - Requests in connection with a student's application for or receipt of financial aid.
  - Requests by state authorities and agencies specifically exempted from the prior consent requirements by the Act for disclosure of records to organizations conducting studies on behalf of the university, if such studies do not permit the personal identification of students to any persons other than to representatives of such organizations and if the personal identification data is destroyed when no longer needed.
  - Information submitted to accrediting organizations.
  - o Requests by parents of a dependent student, as defined in Section 152 of the Internal Revenue Code of 1986.
  - To parents or legal guardians of a student regarding the student's violation of any federal, state or local law, or of any rule or policy of the university governing the use or possession of alcohol or a controlled substance.

- To any person, including a parent, whose knowledge of the situation is necessary to protect the health or safety of the student or any other individuals when, considering the totality of the circumstances, the university has determined that there is an articulable and significant threat to the health or safety of a student or any individual.
- o To authorized federal officials who have need to audit and evaluate federally-supported programs.
- To the U.S. Citizenship and Immigration Services (USCIS)/Department of Homeland Security (DHS) concerning an F, J, or M nonimmigrant alien, only to the extent necessary for the university to comply with Student and Exchange Visitor Program (SEVP) reporting requirements, as mandated by the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, the USA PATRIOT Act, the Enhanced Border Security and Visa Entry Reform Act of 2002, and the regulation at 8 CFR 214.1(h). Consent is not necessary for the university to disclose required information to USCIS or DHS in compliance with SEVP reporting obligations.
- As of January 3, 2012, the U.S. Department of Education's FERPA regulations expand the circumstances 0 under which education records and personally identifiable information (PII) contained in such records including the Social Security Number, grades, or other private information — may be accessed without the student's consent. First, the U.S. Comptroller General, the U.S. Attorney General, the U.S. Secretary of Education, or state and local education authorities ("Federal and State Authorities") may allow access to the records and PII without the student's consent to any third party designated by a Federal or State Authority to evaluate a federal- or state-supported education program. The evaluation may relate to any program that is "principally engaged in the provision of education," such as early childhood education and job training, as well as any program that is administered by an education agency or institution. Second, Federal and State Authorities may allow access to education records and PII without the student's consent to researchers performing certain types of studies, in certain cases even when the university objects to or does not request such research. Federal and State Authorities must obtain certain use-restriction and data security promises from the entities that they authorize to receive the PII, but the Authorities need not maintain direct control over such entities. In addition, in connection with Statewide Longitudinal Data Systems, State Authorities may collect, compile, permanently retain, and share without the student's consent PII from education records, and they may track a student's participation in education and other programs by linking such PII to other personal information about the student that they obtain from other Federal or State data sources, including workforce development, unemployment insurance, child welfare, juvenile justice, military service, and migrant student records systems.
- The results of any disciplinary proceeding conducted by the university against an alleged perpetrator of a crime of violence to the alleged victim of that crime.
- To the victim of an alleged perpetrator of a crime of violence or non-forcible sex offense.
- To disclose information provided to the university under Section 170101 of the Violent Crime Control and Law Enforcement Act of 1994 (42 U.S.C. 14071) concerning registered sex offenders who are required to register under that section.
- Requests for "directory information" (see item VIII).
- The university reserves the right to verify the accuracy of any information contained in what purports to be an official university document (e.g., a transcript or diploma) or is provided to a third party. In addition, degrees (any honors, majors, minors and specializations) are considered public information since they are conferred in a public ceremony.

#### VIII. DIRECTORY INFORMATION

- 1. LSU, in accordance with the Act, has designated the following information about students as public (directory) information:
  - o Name
  - Address (local, home, and e-mail)
  - Telephone (local and home)
  - Major field of study/classification
  - Dates of attendance
  - o Degrees, awards, and honors received
  - Most recent educational agency or institution attended
  - Participation in officially recognized activities and sports
  - Weight and height of members of intercollegiate athletic teams

- 2. Students have the right to have this directory information withheld from the public if they so desire. Each student who wants all directory information to be withheld needs to complete a form available in the Office of the University Registrar. The hold will remain in effect until the student requests that it be lifted. Only currently enrolled students may place a hold on the release of directory information.
- 3. The university receives many inquiries for "directory information" from a variety of sources, including friends, parents, relatives, prospective employers, other institutions of higher education, honor societies, licensing agencies, government agencies, and the news media. Each student is advised to carefully consider the consequences of a decision to withhold "directory information." The university, in good faith, will not release directory information requested to be withheld, and any requests from persons or organizations outside the university will be refused unless the student provides written consent for the release.
- 4. Given the ability of students to stay connected with family and friends via the Internet, etc., the university strongly recommends that personnel with access to directory information not release any addresses, phone numbers, or e-mail addresses to third parties. Requestors are to be directed to the Office of the University Registrar.
- The university publishes student address information on the myLSU Directory, but not on the public directory. If students want to withhold their address information from the myLSU Directory, they may do so using the myLSU Directory Information application.

IX. COMPLAINTS, CONCERNS, OR SUGGESTIONS

Final responsibility for the interpretation of the provisions of this policy rests with the University Registrar. Any student who has reason to believe that the university is not complying with the Act or this policy should inform the University Registrar in writing. The University Registrar shall promptly review all such allegations. Students also have the right to file a complaint with the U.S. Department of Education concerning alleged failures by the university to comply with the Act.

## Resources

#### I. TYPE, LOCATION, AND CUSTODIAN OF STUDENT RECORDS

LSU does not maintain education records in one central office. Education records are maintained in the respective colleges and schools, the Graduate School, and the Office of the University Registrar. Other education records are maintained in the Office of Academic Affairs, Student Life and Enrollment Management (undergraduate admission, financial aid information, and student employment), Student Advocacy and Accountability (disciplinary records), Athletic Department, International Services Office, and other offices. Questions regarding individual student records should be directed to the appropriate location. See complete list under "Responsibilities."

#### II. RESPONSIBILITIES

Position or Office	Location	Custodian
Academic Affairs, Office of	Room 156, Thomas Boyd Hall	Dr. Stacia L. Haynie
Academic Success, Center for	Room B-31 Coates Hall	Ms. Melissa Brocato
Admissions, Graduate	Room 114, David Boyd Hall	Dr. Michelle Masse
Admissions, Undergraduate	Room 1146, Pleasant Hall	Mr. Danny Barrow
Advising & Counseling, Center for	Room 150, Himes Hall	Ms. Andrea Jones
Agriculture, College of	Room 138, Woodin Hall	Dr. William Richardson
Art & Design, College of	Room 213, Design Building	Dr. Alkis Tsolakis
Athletics	6 <sup>th</sup> Floor Athletic Administration Building	Mr. Joe Alleva
Bursar Operations, Office of	Room 125, Thomas Boyd Hall	Ms. Elahe Russell
Business, E. J. Ourso, College of	Room 1053, Business Education Complex	Dr. Richard White
LSU Olinde Career Center	158 LSU Student Union	Ms. Jesse Downs
Coast & Environment, College of	Room 1002U, Coast and Environment Building	Dr. Chris D'Elia
Continuing Education, Division of	Room 1225, Pleasant Hall	Mr. Doug Weimer
Disability Services	Room 115, Johnston Hall	Mr. Benjamin Cornwell
Engineering, College of	Room 3139, Taylor Hall	Dr. Mary Julia Wornat
Enrollment Management, Office of	Room 1146, Pleasant Hall	Dr. Jose Aviles
Financial Aid, Office of	Room 1146, Pleasant Hall	Ms. Amy Marix
Freshman Year, Center for	Room 150, Allen Hall	Ms. Andrea Jones
The Graduate School	Room 114, David Boyd Hall	Dr. Michelle Massé
Human Sciences & Education, College of	Room 236, Peabody Hall	Dr. Damon Andrew
Humanities and Social Sciences, College of	Room 119, Hodges Hall	Dr. Troy Blanchard
Ogden Honors College	8 Johnston Hall	Dr. Jonathan Earle
Paul M. Hebert Law Center	Room 202, Law Center	Ms. Michele Forbes
Mass Communication, Manship School of	Room 213, Journalism Building	Dr. Jerry Ceppos
Music & Dramatic Arts, College of	Room 102, School of Music Building	Dr. Todd Queen
Residential Life	Room 99, Grace King Hall	Mr. Steve Waller
Science, College of	Room 351, Hatcher Hall	Dr. Cynthia Peterson
Student Advocacy & Accountability	Room 340, LSU Student Union	Dr. Jonathan Sanders
Student Life & Enrollment	Room 240, Thomas Boyd Hall	Dr. Kurt Keppler
University Registrar, Office of the	Room 112, Thomas Boyd Hall	Mr. Robert Doolos
Veterinary Medicine, School of	Room 1102, Veterinary Medicine Building	Dr. Joel Baines

III. LSU Office of the Dean of Students

Student Advocacy & Accountability, 225-578-4307 LSU Code of Student Conduct. http://www.lsu.edu/saa/students/codeofconduct.php

#### IV. U. S. Department of Education

U.S. Department of Education, 1-800-872-5327. www2.ed.gov/policy/gen/guid/fpco/index.html

#### V. Contacts

Subject	Office	Telephone	E-mail/URL
Interpretation of the policy or referral to area of responsibility for maintaining record(s)	Office of the	225-578-1686	registrar@lsu.edu http://www.lsu.edu/registrar/privacy-guidelines/index.php

## **Other Rules and Regulations**

## **Standards of Conduct**

The university's guidelines and expectations for behavior and accountability procedures for students are outlined in the *Code of Student Conduct*. Policies and procedures governing student organizations, activities, and conduct may be accessed at www.lsu.edu/deanofstudents and www.lsu.edu/campuslife. Student Advocacy & Accountability has administrative responsibility for coordinating all university accountability procedures for students and student organizations. Students who are charged with alleged violations of the Code of Student Conduct are provided rights, including the right to a notice and a hearing. Additional details regarding standards of conduct may be found at: www.lsu.edu/saa. LSU's Commitment to Community is an additional university document which details the expectation to uphold the highest standards of performance in an academic and social environment.

## The General Education Component of Undergraduate Education

## The General Education Component of Undergraduate Education

The general education of LSU students spans the four years of undergraduate study; there are two components. One component requires students to complete 39 hours that provide a breadth of knowledge across the following six major areas:

- English composition (six hours)
- Analytical reasoning (six hours)
- Arts (three hours)
- Humanities (nine hours)
- Natural sciences (nine hours)
- Social sciences (six hours)

The second component requires that courses used to satisfy the above requirement also contribute to the student's competency in one or more of the University's Learning Outcomes:

- 1. An LSU graduate will demonstrate effective communication of complex knowledge and ideas through written, oral, visual, and technological media.
- 2. An LSU graduate will demonstrate an understanding of historical, cultural, and philosophical complexity which supports sophisticated discourse.
- An LSU graduate will be able to conduct research-based inquiry, including articulation of complex disciplinary and interdisciplinary problems, effective evaluation and analysis of primary and secondary sources, and integration of relevant information into original discourse.
- 4. An LSU graduate will be able to employ scientific and mathematical methods and technology in the resolution of laboratory and real-world problems.
- 5. An LSU graduate will demonstrate an understanding of the factors associated with global interdependence, including economic, political, psychological, cultural, and linguistic forces.
- 6. An LSU graduate will have the knowledge, skills, and disposition which attest to a commitment and ability to recognize and to participate in processes which improve the civic life of communities.

Recognizing that the fundamental characteristics for effective participation in the marketplace and the community necessarily involve multidisciplinary study, each student designs a unique curriculum based on a major field of study and including 39 hours of general education courses across six areas of focus: English Composition, Analytical Reasoning, Arts, Humanities, Natural Sciences, and Social Sciences. In general education courses, students begin the development of the LSU Learning Outcomes, which are refined and focused in disciplinary courses taken during the junior and senior years, with the intention that all graduates, regardless of major, will develop a set of intellectual abilities, a degree of sophistication, and a civic-minded perspective that correspond to the high level of functionality represented in the outcomes taken as a whole.

## Regulations

- Students must complete the 39-hour general education requirement *prior to graduating from LSU*. It is recommended that students complete the requirement during their first four semesters at the university.
- Only those courses on the approved list below may be used to satisfy the general education requirement.
- An entering student may receive *three or six hours of credit in English composition* on the basis of ACT scores and/or performance on approved placement tests.
- An entering student may receive credit for *one or more of the required mathematics courses* on the basis of placement test scores.
- Advanced placement and advanced standing credit may be used to satisfy the general education requirement.
- General education courses *will be graded on the "A+," "A," "A-," "B+," "B," "B-," "C+," "C," "C-," "D+," "D," "D-," "F" system.* No courses taken on a pass/fail basis will count toward the general education requirement.
- Appeals for an exception to the general education requirements: A "Request for an Exception to the General Education Component" must be submitted to the dean of the student's college using the appropriate form. Please note that the

General Education Component is a highly intentional aspect of undergraduate education. Courses are listed in the Component on the basis of criteria associated with clear expectations for student achievement. Accordingly, appeals of this type are discouraged and will be considered only in extreme circumstances. Scheduling difficulties or allegations of poor advising do not constitute a reasonable basis for an appeal, nor does the perception that the content of a course adequately substitutes for a course listed in the Component. Requests are heard by the Faculty Senate Committee on General Education. Where students intend to substitute a course for an existing approved general education course, they should obtain a decision prior to taking the course intended for substitution.

## **Transfer Course Approval**

Deans are to determine the applicability of transfer courses to a component of LSU's general education requirements.

If the course is deemed to be applicable, and there is no equivalent LSU course, deans are asked to enter a course substitution on the Student Records and Registration database, indicating that the course is accepted for general education credit. Documentation concerning this decision should be kept on file in the college.

If it is determined that a course is equivalent to an LSU course, colleges should notify the Office of Enrollment Management so the Admissions Transfer Table can be updated.

If the college does not approve a transfer course for general education credit, the student may petition the Office of Academic Affairs for a decision.

### **Regents' Statewide Articulation**

LSU participates in the Board of Regents' Statewide Articulation Consortium. Students who plan to transfer to another Louisiana public institution should consult the Office of Enrollment Management for information about the course transfer agreement.

## **General Education Courses**

In the list of courses in the "\*\*COURSE SEARCH\*\*" section of this catalog, general education courses are designated within the course description.

In the list below, cross-listed courses are identified by information enclosed in parentheses.

- I. English Composition (6 Sem. Hrs.)
- II. Analytical Reasoning (6 Sem. Hrs.)
- III. Arts (3 Sem. Hrs.)
- IV. Humanities (9 Sem. Hrs.)
- V. Natural Sciences (9 Sem. Hrs.)
- VI. Social Sciences (6 Sem. Hrs.)

## The General Education Component of Undergraduate Education

## I. English Composition (6 Sem. Hrs.)

All students must complete 6 credits in English composition, one course from each group listed below.

#### Group one:

#### English

- ENGL 1001 English Composition (3) or
- ENGL 1004 English Composition (3) (for international students only)

#### Group two:

#### English

- ENGL 1005 English Composition (3) (for international students only)
- ENGL 2000 English Composition (3)

#### Honors

- HNRS 2000 Critical Analysis (3)
- HNRS 2012 The 19th Century (3)
- HNRS 2013 The 20th Century (3)
- HNRS 2020 Contemporary Studies (3)
- HNRS 2021 Colloquium in the Arts (3)
- HNRS 2030 Humanities Colloquium (3)
- HNRS 2033 Social Science Colloquium (3)
- HNRS 2041 Classical Traditions: The Mediterranean World (4)
- HNRS 2042 Modern Traditions: Europe and the West (4)

## II. Analytical Reasoning (6 Sem. Hrs.)

General education analytical reasoning courses must come from the following list. All students must have credit in at least one Mathematics course.

#### **Computer Science**

• CSC 1240 Statistics and Graphics with MATLAB (3)

#### **Experimental Statistics**

• EXST 2201 Introduction to Statistical Analysis (4)

#### Mathematics

- MATH 1021 College Algebra (3)
- MATH 1022 Plane Trigonometry (3)
- MATH 1023 College Algebra and Trigonometry (5)
- MATH 1029 Introduction to Contemporary Mathematics (3)
- MATH 1100 The Nature of Mathematics (3)
- MATH 1431 Calculus with Business and Economic Applications (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- MATH 1551 HONORS: Analytic Geometry and Calculus I (5)
- MATH 1552 Analytic Geometry and Calculus II (4)
- MATH 1553 HONORS: Analytic Geometry and Calculus II (4)
- MATH 1554 Calculus II for Life Sciences (4)

#### Philosophy

- PHIL 1021 Introduction to Logic (3)
- PHIL 2010 Symbolic Logic I (3)

## III. Arts (3 Sem. Hrs.)

#### Architecture

• ARCH 2401 Appreciation of Architecture (3)

#### Art

• ART 1001 Introduction to Fine Arts (3)

#### Art History

- ARTH 1440 Historical Survey of the Arts (3)
- ARTH 1441 Historical Survey of the Arts (3)
- ARTH 2401 Art of the Ancient Near East and Egypt (3)
- ARTH 2402 Classical Art and Archaeology (3)
- ARTH 2411 Survey of Asian Art (3)
- ARTH 2470 Survey of Modern to Contemporary Art (3)

#### Honors

• HNRS 2021 Colloquium in the Arts (3)

#### **Interior Design**

• ID 1051 Introduction to Interior Design (3)

#### Landscape Architecture

• LA 1201 Introduction to Landscape Architecture (3)

#### Music

- MUS 1600 American Popular Music (3)
- MUS 1751 Music Appreciation (3)
- MUS 1755 HONORS: Music Appreciation (3)
- MUS 1799 Rudiments of Music (3)
- MUS 2000 History of Jazz (3)

#### Theatre

- THTR 1020 Introduction to Theatre (3)
- THTR 1021 HONORS: Introduction to Theatre (3)
- THTR 1800 Introduction to Dance (3)
- THTR 2022 Introduction to Theatrical Design (3)
- THTR 2024 Live Entertainment Technology (3)
- THTR 2028 Introduction to Dramatic Literature (3)

## IV. Humanities (9 Sem. Hrs.)

Students must take three humanities courses to fulfill this requirement.

#### African & African American Studies

- AAAS 2025 African American Religion (3)
- (See also REL 2025 African American Religion)

#### Arabic

- ARAB 1101 Beginning Arabic (4)
- ARAB 1102 Beginning Arabic (4)
- ARAB 2101 Intermediate Arabic (3)
- ARAB 2102 Intermediate Arabic (3)

#### Architecture

- ARCH 2007 History of Architecture I (3)
- ARCH 2008 History of Architecture II (3)

#### Chinese

- CHIN 1101 Beginning Mandarin Chinese (4)
- CHIN 1102 Beginning Mandarin Chinese (4)
- CHIN 2001 Intermediate Mandarin Chinese (4)
- CHIN 2002 Intermediate Mandarin Chinese (4)
- CHIN 2070 Chinese Cinema (3)

#### **Classical Studies**

- CLST 2101 Ancient Greek Civilization (3)
- CLST 2102 Ancient Roman Civilization (3)

#### **Communication Studies**

- CMST 1061 Fundamentals of Communication (3)
- CMST 2040 Introduction to Performing Literature (3)
- CMST 2060 Public Speaking (3)
- CMST 2063 Argumentation and Debate (3)

#### **Comparative Literature**

- CPLT 2201 Introduction to World Literary Traditions (3)
- (See also ENGL 2201 Introduction to World Literary Traditions)
- CPLT 2202 Introduction to Modern World Literature (3)
- (See also ENGL 2202 Introduction to Modern World Literature)

#### English

- ENGL 2024 Critical Strategies (3)
- ENGL 2824 HONORS: Critical Analysis of Literature (3)
- ENGL 2025 Fiction (3)
- ENGL 2027 Poetry (3)
- ENGL 2029 Drama (3)
- ENGL 2123 Studies in Literary Traditions and Themes (3)

- ENGL 2823 HONORS: Studies in Literary Traditions and Themes (3)
- ENGL 2148 Shakespeare (3)
- ENGL 2201 Introduction to World Literary Traditions (3)
- (See also CPLT 2201 Introduction to World Literary Traditions)
- ENGL 2202 Introduction to Modern World Literature (3)
- (See also CPLT 2202 Introduction to Modern World Literature)
- ENGL 2220 Major British Authors (3)
- ENGL 2231 Reading Film (3)
- ENGL 2270 Major American Authors (3)
- ENGL 2300 Interpreting Discourse (3)
- ENGL 2593 Images of Women: An Introduction (3)
- ENGL 2673 Literature and Ethnicity (3)
- ENGL 2674 Introduction to African-American Literature (3)

#### French

- FREN 1001 Elementary French (4)
- FREN 1002 Elementary French (4)
- FREN 1201 Elementary Cajun French (4)
- FREN 1202 Elementary Cajun French (4)
- FREN 2101 Intermediate French (3)
- FREN 2102 Intermediate French (3)
- FREN 2155 Readings in French Literature (3)
- FREN 2201 Intermediate Cajun French (3)
- FREN 2202 Intermediate Cajun French (3)

#### German

- GERM 1101 Elementary German (4)
- GERM 1102 Elementary German (4)
- GERM 2075 German Civilization (3)
- (See also HIST 2075 German Civilization)
- GERM 2101 Intermediate German (3)
- GERM 2102 Intermediate German (3)
- GERM 2155 Readings in German Literature (3)

#### Greek

- GREK 1001 Elementary Greek (4)
- GREK 2051 Intermediate Greek (4)
- GREK 2103 Intermediate Greek Prose (3)
- GREK 2153 Homer (3)
- GREK 2155 Greek Drama (3)
- GREK 2156 New Testament (3)
- GREK 2165 Plato's Dialogues (3)
- GREK 2166 Attic Oratory (3)

#### Hebrew

• HEBR 1001 Beginning Hebrew (4)

- (See also REL 1001 Beginning Hebrew)
- HEBR 1002 Beginning Hebrew (4)
- (See also REL 1002 Beginning Hebrew)
- HEBR 2003 Intermediate Hebrew (4)
- (See also REL 2003 Intermediate Hebrew)
- HEBR 2004 Intermediate Hebrew (4)
- (See also REL 2004 Intermediate Hebrew)

#### History

- HIST 1001 Western Civilization to 1500 (3)
- HIST 1002 HONORS: Western Civilization to 1500 (3)
- HIST 1003 Western Civilization Since 1500 (3)
- HIST 1004 HONORS: Western Civilization Since 1500 (3)
- HIST 1005 World History to 1500 (3)
- HIST 1007 World History Since 1500 (3)
- HIST 2012 Britain from 1689 to the Present (3)
- HIST 2014 Goddesses to Witches: Women in Europe 500 BCE -1700 CE (3)
- HIST 2020 Medieval Europe (3)
- HIST 2022 Modern Europe (3)
- HIST 2025 Early Modern Europe 3
- HIST 2030 War, Mass Violence, and Genocide (3)
- HIST 2035 Home Fronts (3)
- HIST 2049 Violence in the American West 3
- HIST 2055 The United States to 1865 (3)
- HIST 2056 HONORS: The United States to 1865 (3)
- HIST 2057 The United States from 1865 to the Present (3)
- HIST 2058 HONORS: The United States from 1865 to the Present (3)
- HIST 2061 African American History (3)
- HIST 2065 History of Popular Culture in the United States (3)
- HIST 2075 German Civilization (3)
- (See also GERM 2075 German Civilization)
- HIST 2085 Colonial Latin America (3)
- HIST 2096 East Asian Civilization Since 1800 (3)
- HIST 2100 Introduction to Asia (3)
- HIST 2125 The History of Premodern Cities (3)
- HIST 2126 Cities in European History since 1500 (3)
- HIST 2160 Contemporary Middle East (3)
- HIST 2184 Introduction to African Civilizations (3)
- HIST 2185 African Colonialism 1800-1960 (3)
- HIST 2186 Post-Colonial Africa (3)
- HIST 2190 Modern South Asia 3

#### Honors

- HNRS 2000 Critical Analysis (3)
- HNRS 2012 The 19th Century (3)

- HNRS 2013 The 20th Century (3)
- HNRS 2020 Contemporary Studies (3)
- HNRS 2030 Humanities Colloquium (3)
- HNRS 2041 Classical Traditions: The Mediterranean World (4)
- HNRS 2042 Modern Traditions: Europe and the West (4)

#### Italian

- ITAL 1001 Elementary Italian (4)
- ITAL 1002 Elementary Italian (4)
- ITAL 2101 Intermediate Italian (3)
- ITAL 2102 Intermediate Italian (3)
- ITAL 2155 Readings in Italian Literature (3)

#### Landscape Architecture

• LA 1203 Views of the American Landscape (3)

#### Latin

- LATN 1001 Elementary Latin (4)
- LATN 2051 Intermediate Latin (4)
- LATN 2053 Intermediate Latin (3)
- LATN 2065 Golden Age Narrative Poetry (3)
- LATN 2066 Golden Age Prose (3)
- LATN 2073 Roman Historians (3)
- LATN 2074 Golden Age Lyric Poetry (3)

#### Philosophy

- PHIL 1000 Introduction to Philosophy (3)
- PHIL 1001 HONORS: Introduction to Philosophy (3)
- PHIL 2018 Professional Ethics (3)
- PHIL 2020 Ethics (3)
- PHIL 2024 Philosophy in Literature (3)
- PHIL 2028 Philosophy of Religion (3)
- (See also REL 2028 Philosophy of Religion)
- PHIL 2033 History of Ancient and Medieval Philosophy (3)
- PHIL 2053 HONORS: History of Ancient and Medieval Philosophy (3)
- PHIL 2035 History of Modern Philosophy (3)
- PHIL 2050 HONORS: Ethics (3)

#### **Religious Studies**

- REL 1000 Religions of the World (3)
- REL 1001 Beginning Hebrew (4)
- (See also HEBR 1001 Beginning Hebrew)
- REL 1002 Beginning Hebrew (4)
- (See also HEBR 1002 Beginning Hebrew)
- REL 1004 Old Testament (3)
- REL 1005 New Testament (3)

- REL 2000 Introduction to the Study of Religion (3)
- REL 2001 Faith and Doubt (3)
- REL 2003 Intermediate Hebrew (4)
- (See also HEBR 2003 Intermediate Hebrew)
- REL 2004 Intermediate Hebrew (4)
- (See also HEBR 2004 Intermediate Hebrew)
- REL 2025 African American Religion (3)
- (See also AAAS 2025 African American Religion)
- REL 2027 Asian Religions (3)
- REL 2031 HONORS: Asian Religions (3)
- REL 2028 Philosophy of Religion (3)
- (See also PHIL 2028 Philosophy of Religion)
- REL 2029 Judaism, Christianity and Islam (3)
- REL 2030 HONORS: Judaism, Christianity and Islam (3)
- REL 2033 American Religions (3)

#### Social Work

• SW 2500 Introduction to LGBTQ Studies (3)

#### Spanish

- SPAN 1101 Elementary Spanish (4)
- SPAN 1102 Elementary Spanish (4)
- SPAN 1152 Intensive Beginning Spanish (4)
- SPAN 2101 Intermediate Spanish (3)
- SPAN 2102 Intermediate Spanish (3)

#### Women's and Gender Studies

- WGS 2500 Introduction to Women's & Gender Studies (3)
- WGS 2501 HONORS: Introduction to Women's & Gender Studies (3)

## V. Natural Sciences (9 Sem. Hrs.)

To complete the natural science requirement, a student must take at least nine semester hours from the following list. A minimum of six hours must be in a physical or a life science course sequence and the remaining hours must be in an area other than that previously selected (i.e., both physical and life sciences must be taken). Life science courses are identified in the following list with an asterisk (\*).

#### **Sequence Courses**

#### Astronomy

- ASTR 1101 The Solar System (3)
- ASTR 1102 Stellar Astronomy (3)

#### **Biological Sciences**

- BIOL 1001 General Biology (3) \*
- BIOL 1002 General Biology (3) \*
- BIOL 1201 Biology for Science Majors I (3) \*
- BIOL 1202 Biology for Science Majors II (3) \*
- BIOL 1503 Honors: Biology for Science Majors II (4) \*

#### Chemistry

- CHEM 1001 Chemical Fundamentals (3)
- CHEM 1002 Chemistry of Life and the Environment (3)
- CHEM 1201 General Chemistry I (3)
- CHEM 1421 HONORS: General Chemistry (3)
- CHEM 1202 General Chemistry (3)
- CHEM 1422 HONORS: General Chemistry (3)

#### **Environmental Sciences**

- ENVS 1126 Introduction to Environmental Sciences (3) \*
- ENVS 1127 HONORS: Introduction to Environmental Sciences (3) \*
- ENVS 2126 Environmental and Anthropogenic Impacts of Microbes (3) \*

#### Geography

- GEOG 2050 Physical Geography: The Atmosphere (3)
- GEOG 2051 Physical Geography: Land and Water Surfaces, Plant and Animal Realms (3)

#### Geology

- GEOL 1001 General Geology: Physical (3)
- GEOL 1002 HONORS: General Geology: Physical (3)
- GEOL 1003 General Geology: Historical (3)
- GEOL 1004 HONORS: General Geology: Historical (3)

• GEOL 2020 Geology and the Environment (3)

#### Honors

- HNRS 1007 Introduction to Life Sciences (4) \*
- HNRS 1008 Introduction to the Life Sciences (4) \*

#### Horticulture

- HORT 2050 General Horticulture (3) \*
- HORT 2061 Plant Propagation (3) \*

#### **Physical Science**

- PHSC 1001 Physical Science (3)
- PHSC 1002 Physical Science (3)

#### Physics

- PHYS 1201 General Physics for Physics Majors (4)
- PHYS 1202 General Physics for Physics Majors (4)
- PHYS 2001 General Physics I (3)
- PHYS 2002 General Physics II (3)
- PHYS 2110 Particle Mechanics (3)
- PHYS 2112 Fluids, Thermodynamics, Waves, and Modern Physics (3)
- PHYS 2113 Fields: Gravity, Electricity, and Magnetism (3)

#### Laboratories and Other Individual Science Courses

#### Agriculture

• AGRI 1005 Science and Society (3) \*

#### Agronomy

• AGRO 1001 Plants and People (3) \*

#### **Biological Sciences**

• BIOL 1011 Microorganisms and Man (3) \*

#### Geology

• GEOL 1066 Dinosaurs, Catastrophes and Extinctions (3)

#### Honors

• HNRS 1035 Life Science Seminar (3) \*

• HNRS 1036 Physical Science Seminar (3)

#### **Medical Physics**

• MEDP 2051 Radiation Science with Applications (3)

#### **Oceanography and Coastal Sciences**

- OCS 1005 Introduction to Oceanography (3)
- OCS 1006 HONORS: Introduction to Oceanography (3)
- OCS 2050 Coastal Systems Ecology and Ecosystem Design (3) \*

#### Physics

• PHYS 2401 Introduction to Concepts in Physics (3)

#### **Renewable Natural Resources**

• RNR 1001 Natural Resource Conservation (3) \*

#### Women's & Gender Studies

• WGS 1001 Evolution of Sex and Gender (3) \*

## VI. Social Sciences (6 Sem. Hrs.)

All students must take at least three hours of social sciences at the 2000-level.

#### African & African American Studies

• AAAS 2000 Introduction to African & African American Studies (3)

#### **Agricultural Economics**

• AGEC 2003 Introduction to Agricultural Economics (3)

#### Anthropology

- ANTH 1001 Introduction to Physical Anthropology and Prehistory (3)
- ANTH 1003 Introduction to Cultural and Social Anthropology (3)
- ANTH 2015 Introduction to Archaeology (3)
- ANTH 2050 World Archaeology (3)
- ANTH 2051 Introduction to World Ethnography (3)
- ANTH 2423 Introduction to Folklore (3) (See also ENGL 2423 Introduction to Folklore)

#### **Communication Disorders**

• COMD 2050 Introduction to Language (3)

#### **Communication Studies**

• CMST 2010 Interpersonal Communication (3)

#### **Curriculum and Instruction**

- EDCI 2001 Education, Schooling and Society (3)
- EDCI 2500 Knowing and Learning in Mathematics and Science (3)

#### **Economics**

- ECON 2000 Principles of Microeconomics (3)
- ECON 2001 HONORS: Principles of Microeconomics (3)
- ECON 2010 Principles of Macroeconomics (3)
- ECON 2011 HONORS: Principles of Macroeconomics (3)
- ECON 2030 Economic Principles (3)
- ECON 2031 HONORS: Economic Principles (3)

#### English

- ENGL 2423 Introduction to Folklore (3) (See also ANTH 2423 Introduction to Folklore)
- ENGL 2716 Language Diversity, Society, & Power (3) (See also LING 2716 Language Diversity, Society, & Power)

#### Geography

- GEOG 1001 Human Geography: Americas and Europe (3)
- GEOG 1003 Human Geography: Africa and Asia (3)

#### Honors

- HNRS 2000 Critical Analysis (3)
- HNRS 2012 The 19th Century (3)

- HNRS 2013 The 20th Century (3)
- HNRS 2020 Contemporary Studies (3)
- HNRS 2033 Social Science Colloquium (3)
- HNRS 2041 Classical Traditions: The Mediterranean World (4)
- HNRS 2042 Modern Traditions: Europe and the West (4)

#### **International Studies**

• INTL 2000 Contemporary Global Issues (3)

#### Kinesiology

• KIN 1600 Individual Wellness and Public Health (3)

#### Library & Information Science

• LIS 2000 Introduction to Information & Society (3)

#### Linguistics

 LING 2716 Language Diversity, Society, & Power (3) (See also ENGL 2716 Language Diversity, Society, & Power)

#### **Mass Communication**

- MC 2000 Introduction to Mass Media (3)
- MC 2001 HONORS: Introduction to Mass Media (3)
- MC 2002 Sports and Mass Communication (3)
- MC 2025 The Business of Entertainment Media (3)
- MC 2030 Civic Engagement, Youth and Media (3) (See also POLI 2030 Civic Engagement, Youth and Media)

#### **Political Science**

- POLI 1001 Fundamental Issues of Politics (3)
- POLI 2030 Civic Engagement, Youth and Media (3) (See also MC 2030 Civic Engagement, Youth and Media)
- POLI 2051 American Government (3)
- POLI 2052 HONORS: American Government (3)
- POLI 2053 Introduction to Comparative Politics (3)
- POLI 2057 Introduction to International Politics (3)
- POLI 2060 Introduction to Political Theory (3)

#### Psychology

- PSYC 2000 Introduction to Psychology (3)
- PSYC 2001 HONORS: Introduction to Psychology (3)

#### Sociology

- SOCL 2001 Introductory Sociology (3)
- SOCL 2002 HONORS: Introductory Sociology (3)
- SOCL 2501 Current Social Problems (3)
- SOCL 2505 Marriage and Family (3)

#### Women's & Gender Studies

• WGS 2900 Gender, Race and Nation (3)

## **University College**

ANDREA JONES	DEBORAH HOLLIER
Executive Director	Director, Student Support Services
JOSEPH GIVENS	
Director, Ronald E. McNair Research Scholars	
150 Allen Hall	
TELEPHONE: 225-578-6822	
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WEBSITE: www.uc.lsu.edu	

Programs

Center for Freshman Year

Division of Pre-Professional Programs

University College is the portal of entry for most incoming freshmen enrolling at LSU. It also serves many returning students and transfer students who are not yet eligible for admission to a degree-granting senior college on campus. The two enrollment divisions of University College are the Center for Freshman Year and the Center for Advising & Counseling. In addition, a variety of retention-specific programs that focus on particular student populations are a significant part of the role and mission of University College.

<u>Center for Freshman Year</u> enrolls students with fewer than 30 hours of attempted credit and who have not yet been admitted to a senior college. Undecided, pre-nursing, and some allied health majors may remain in UCFY for 45 attempted hours.

<u>Center for Advising & Counseling</u> enrolls students who have attempted 30-plus hours of college credit and who have not yet met the admission requirements for one of the university's degree-granting senior colleges. Other special populations are included as well. Visiting students, cross-enrolled students from other institutions, and nonmatriculating students who are not working toward degrees are examples of these special populations.

<u>Allied Health and Pre-Nursing Programs</u> – Many Allied Health and pre-nursing students begin their academic careers at LSU with the intent of continuing their studies at one of the campuses of the LSU Health Sciences Center or possibly one of several state and private schools offering degrees in these areas. University College provides advising assistance for these students as they prepare for the selective admission process for these professional programs.

<u>Student Support Services</u> is a federally funded TRIO program that serves a select group of undergraduate students experiencing income, first generation, and disability barriers to academic success. The program provides academic, personal, and career enhancement opportunities designed to increase retention and graduation success.

<u>Ronald E. McNair Research Scholars</u>, also a federally funded TRIO program, is a part of University College. The program prepares eligible participants for doctoral studies through involvement in research and other scholarly activities. Participants are first generation students, students from a background of financial need, and students who are from ethnic groups underrepresented in graduate education.

## **Center for Advising & Counseling**

OFFICE	150 Himes Hall
TELEPHONE	225-578-8281
FAX	225-578-8268
E-MAIL	ucac@lsu.edu
WEBSITE	www.lsu.edu/ucac

The Center for Advising & Counseling serves both traditional and nontraditional students and allows them the opportunity to meet their individual academic goals. Within the framework of university regulations, students may be admitted to the Center for Advising & Counseling according to the following:

- Students admitted from the Center for Freshman Year must have earned a minimum of 30 credit hours and meet the university's requirements for continued enrollment, but are not yet admitted to a senior college. Students exiting the Center for Freshman Year who are in good academic standing, on University Scholastic Warning, or on University Scholastic Probation are admissible.
- **Transfer students, re-entry students, and students from other divisions** of the university may be admitted for a limited time in an effort to meet the admissions requirements to a senior college. These students will be considered for enrollment based on their potential for success in a particular degree program.

All admitted students will meet with an academic counselor to develop a plan outlining conditions and duration of enrollment in the Center for Advising & Counseling. Plans may be revised based on student performance, and continued enrollment may be denied if students fail to progress as defined in the individualized enrollment plan. Students are generally allowed a maximum of four regular semesters of enrollment in UCAC. In some instances, it may be appropriate to limit enrollment to less than four regular semesters.

## **Enrollment Options**

- **Pre-degree** Students with a declared major that are not eligible for enrollment in the freshman college but do not meet the admission criteria for a senior college.
- **Pre-professional** Allied health or nursing students who are not pursuing an undergraduate degree at LSU and have the potential to pursue one of the pre-professional programs at the LSU Health Sciences Center in New Orleans or Shreveport.
- Not Regularly Admitted Students Students pursuing a degree at another college or university and taking courses at LSU with the intent to transfer all credit to their home institutions.
- Non-matriculating Students Students who have completed a degree at a four-year institution and wish to take undergraduate courses with no specific degree path or who are in need of meeting admission requirements to a senior college that will offer a second degree.

International students who are in the U.S. on student visas are not eligible for admission to pursue their studies as nonmatriculating or non-degree seeking students in the Center for Advising & Counseling according to the regulations of the United States Citizenship and Immigration Services.

- **Restricted Admit** Students who have been previously enrolled in a senior college and are petitioning enrollment in UCAC as a condition of College Scholastic Probation or for students who are exiting a senior college to attempt admission to another senior college offering a newly declared major. Enrollment in this category is generally limited to two semesters.
- Southern University Cross Enrollment Students regularly enrolled at Southern University and taking a course or courses at LSU through the cooperative agreement between the two institutions.

A University College appeals committee will exercise discretion in considering other variables important to the admission decision of students being considered for enrollment in UCAC.

## **Ronald E. McNair Research Scholars**

OFFICE	232 Hatcher Hall
TELEPHONE	225-578-4321
FAX	225-578-4320
E-MAIL	mcnair@lsu.edu
WEBSITE	www.lsu.edu/mcnair

*Ronald E. McNair Research Scholars*, a U.S. Department of Education (ED) TRIO program, promotes a cohort of scholars that more accurately reflects the emergent diversity in life experiences, cultures, and perspectives represented in academia by preparing students who are first-generation, low-income, and underrepresented in graduate education for doctoral studies. We connect undergraduate students with faculty-directed research experiences, provide individualized advisement, and foster knowledge of the graduate school application process. McNair Research Scholars conduct research under the mentorship of LSU faculty representing all fields of study and share the results of their work through publications and workshops.

## **Student Support Services**

OFFICE	B-14 Coates Hall
TELEPHONE	225-578-2873
FAX	225-578-8308
E-MAIL	sss@lsu.edu
WEBSITE	www.lsu.edu/sss

The Student Support Services Program (*LSU SSS*) is a TRIO program federally funded by the U.S. Department of Education to: 1) increase college retention and graduation rates for eligible students; 2) to foster an institutional climate supportive of students traditionally underrepresented in higher education; and 3) to improve the financial and economic literacy of those students. *LSU SSS* offers services designed to help students successfully navigate the academic arena and graduate from LSU. Students selected for membership that actively participate in the provided opportunities have a higher retention and graduation rate. *LSU SSS* offers a variety of free programs and services, such as a structured first year experience including a for-credit course "SSS Success Strategies," peer and group tutoring, academic advising, personal counseling, holistic workshops, open roundtables, assessments for strength's development and career exploration, "priority class scheduling" opportunities for future semesters and a "home" at LSU.

*LSU SSS* membership is based on criteria established in the Higher Education Act. To be eligible, a student must be a U. S. Citizen, U. S. National or a Permanent Resident of the United States; have a need for academic support and must meet at least one of the following criteria:

- Neither parent graduated from college with a baccalaureate degree;
- The student has a documented disability AND has registered with LSU Disability Services
- The student's family meets the income levels established by the federal government (see sss.lsu.edu for additional details).

Students who meet the established federal income levels and are either a first generation student or a student with a disability receive membership priority. For information about the application process, visit Student Support Services and click on the Membership Process link.

## **Center for Freshman Year**

OFFICE	150 Allen Hall
TELEPHONE	225-578-6822
FAX	225-578-5762
E-MAIL	ucinfo@lsu.edu
WEBSITE	www.lsu.edu/ucfy

Every freshman student has access to the full-time counseling/advising staff. Students may obtain assistance in curriculum selection, career guidance, college study skills, and personal issues that may interfere with academic progress.

Freshmen who have decided on a field of study and who want to graduate in a minimum time should follow the freshman year curriculum suggested by the college offering the degree in their interested field of study. These curricula guides are found in the various senior college sections of this catalog. Advising assistance is available to guide students through the curricula requirements for all majors.

Students who have not decided on a field of study will initially enroll in one of the following three undecided/exploratory categories:

UNAH – Undecided with an interest in the arts or humanities UNSE – Undecided with an interest in the sciences or engineering UNSS – Undecided with an interest in the social sciences.

Students enrolled in these exploratory categories are expected to participate in academic and career counseling sessions during their first semester by making an appointment with a Center for Freshman Year counselor. A major should be declared by the end of the freshman year.

#### **Undecided - Arts & Humanities**

The Undecided – Arts & Humanities program should be selected by the student who enters the university and has not yet selected a major, however has a primary interest in programs such as, music, theater, history, religion, philosophy, English, foreign language or communication studies.

Note: This is not a degree program. Students will be expected to declare a specific degree program no later than the end of the second semester of enrollment.

## **Critical Requirements**

# The following outline of Critical Requirements must be met by the semester indicated to ensure that minimal progress will be made in the degree program selected.

Semester 1: Gen. Ed. Analytical Reasoning MATH Course; "C" or better in ENGL 1001.

Semester 2: Gen. Ed. Natural Sciences\*; Gen. Ed. Social Sciences or Gen. Ed. Arts; Declare a Degree Program. Semester 3: Gen. Ed. Analytical Reasoning\*\* or Gen. Ed. Arts; 2.0 LSU and cumulative GPA\*\*\*.

\*Students interested in Landscape Architecture as a possible major should take GEOG 2050.

\*\*Students interested in Landscape Architecture and Architecture as possible majors should take MATH 1022.

\*\*\*It is strongly recommended that students see an advisor or counselor for specific GPA requirements, since some majors require above a 2.0 GPA.

#### **Undecided - Science & Engineering**

The Undecided – Science & Engineering should be selected by a student who may be primarily interested in majors such as computer science, engineering, construction management, agriculture, pre-Nursing, Allied Health, or pre-Medicine.

This program is for the student who enters the university and has not chosen a major. This is not a degree program. Students will be expected to declare a specific major no later than the end of the second semester of enrollment. Until that time, general courses are to be selected based on the Recommended Path outlined below to prevent taking courses that may not apply for degree credit in the eventual major.

## **Critical Requirements**

## The following outline of Critical Requirements must be met by the indicated semester to be considered making minimal progress at the university.

Semester 1: "C" or better in ENGL 1001; MATH 1021/MATH 1023, 2.0 LSU and Cumulative GPA. Semester 2: Gen. Ed. Natural Sciences\*; 2.0 LSU and Cumulative GPA; Declare a Degree Program. Semester 3: "C" or better in MATH 1550 or MATH 1551; Gen. Ed. Natural Sciences\*; 2.0 LSU and Cumulative GPA.

\*Students interested in programs offered through the College of Science or the College of Engineering should consult the recommended paths from the respective college to determine the General Education Natural Science course requirements for specific majors.

#### **Undecided - Social Sciences**

The Undecided – Social Sciences program should be selected by the student who enters the university and has not yet selected a major, however has a primary interest in areas such as anthropology, geography, political science, psychology, or sociology.

NOTE: This is not a degree program. Students will be expected to declare a specific degree program no later than the end of the second semester of enrollment.

## **Critical Requirements**

# The following outline of Critical Requirements must be met by the semester indicated to ensure that minimal progress will be made in the degree program selected.

Semester 1: Gen. Ed. Analytical Reasoning MATH Course; "C" or better in ENGL 1001.

Semester 2: Gen. Ed. Social Sciences; Gen. Ed. Arts Course; Declare a Degree Program.

Semester 3: Gen. Ed. Natural Sciences; First course in Foreign Language Sequence; 2.0 LSU and cumulative GPA\*.

\*It is strongly recommended that students see an advisor or counselor for specific GPA requirements, since some majors require above a 2.0 GPA.

## **Division of Pre-Professional Programs**

Enrollment in the pre-professional health programs in University College does not constitute admission to the professional health programs at the LSU Health Sciences Center.

## **Allied Health Programs**

OFFICE	150 Himes Hall
TELEPHONE	225-578-8281
FAX	225-578-8268

University College offers pre-professional programs that prepare students to enter the professional curricula leading to the bachelor's degree in one of the various allied health fields at either LSU Health New Orleans, LSU Health Shreveport, or at the LSU Dental School in New Orleans.

A 2+2 program which provides the final two years of clinical and professional training for the Bachelor of Science degree programs in Cardiopulmonary Science (respiratory therapy and cardiopulmonary sonography) and Clinical Laboratory Sciences (medical technology).

The LSU School of Dentistry offers programs in Dental Hygiene and Dental Laboratory Technology. A Bachelor of Science program is available in each discipline in addition to an Associate of Science degree in dental laboratory technology. Admission to these programs is on a competitive basis. Applications for admission must be submitted well in advance of the date of matriculation at LSU Health or School of Dentistry.

The LSU School of Allied Health Professions also offers graduate degrees in Audiology, Speech-Language Pathology, Health Sciences, Occupational Therapy, Rehabilitation Counseling, Physician Assistant, and Physical Therapy. Admission to these programs is competitive and requires that students first complete an undergraduate degree in addition to other prerequisite criteria. Preference for admission is given to Louisiana residents. Further information regarding any of the programs may be obtained from the allied health advisor in the Center for Advising & Counseling or from the appropriate institutions.

The programs of study are appropriate for the professional curricula indicated.

## **Distance Learning Programs Credit**

University College students may enroll in Distance Learning Programs (DLP) courses with the approval of the University College executive director's office. For guidance in the selection and enrollment of these courses, students should consult the "Continuing Education" section of this catalog as well as DLP guidelines located in the catalog chapter of the senior college in which they expect to eventually enroll. These policies will be used to determine approval for enrollment.

Students may request an extension of time to complete a DLP course if they: 1) have not exceeded the maximum number of hours for enrollment for a regular semester or summer term, including DLP courses; 2) remain eligible to enroll at the university; and 3) continue their enrollment in University College.

### Cardiopulmonary Science (Respiratory Therapy and Cardiopulmonary Sonography)

The following program is designed for students planning to apply to the Bachelor of Science in Cardiopulmonary Science at the LSU Health School of Allied Health Professions in New Orleans and Shreveport. Students should check the LSU Health's website for any additional updates or changes to the prerequisite curricula in cardiopulmonary science. Visit http://lsuhsc.edu or www.lsuhscshreveport.edu for more information.

Approval of course selections must be obtained from the Pre-Allied Health advisor in the Center for Advising & Counseling or from the head of the appropriate professional department at the LSU Health School of Allied Health Professions. A copy of this approval must be placed in the student's file in the Center for Advising & Counseling.

Military science or physical education skills courses are not acceptable as electives in fulfilling the 60 semester hour pre-allied health credit requirement.

## **Critical Requirements**

# The following outline of Critical Requirements must be met by the semester indicated to ensure that minimal progress will be made in the program selected. Semester 1: "C" or better in ENGL 1001 and MATH 1021.

Semester 2: "C" or better in EI(GE 1001 and MITTI IC Semester 2: "C" or better in EIOL 1201. Semester 3: "C" or better in BIOL 1001 or BIOL 1201. Semester 4: "C" or better in ENGL 2000.

## Prerequisite Courses:

- English (Composition) (6)
- General Education Humanities (9)
- General Chemistry & Labs (8)
- Algebra & Trigonometry (6)
- General Biology & Lab (8)
- Human Physiology (3)
- Science Elective (3)
- Psychology (general) (3)
- General Physics & Lab (4)
- General Microbiology & Lab (4)
- General Education Arts Electives (3)
- Sociology (3)

60 Total Sem. Hrs.

#### Clinical Laboratory Science (Medical Technology)

The LSU Health offers a "3 plus 1" program in Clinical Laboratory Science (Medical Technology). Please contact the Pre-Allied Health advisor in the Center for Advising & Counseling for more information.

The following program is designed for students planning to apply to the Bachelor of Science in Clinical Laboratory Sciences at LSU Health in New Orleans and Shreveport. Students should check the LSU Health Sciences Center website for any additional updates or changes to the prerequisite curricula in medical technology. Visit www.lsuhsc.edu or www.lsuhscshreveport.edu for more information.

Approval of course selections must be obtained from the allied health counselor in the Center for Advising & Counseling or from the head of the appropriate professional department at the LSU Health School of Allied Health Professions. Students are required to meet with the Pre-Allied Health advisor each semester to review their schedule and discuss any possible changes in prerequisites and entrance requirements to this program. A copy of this approval must be placed in the student's file in the Center for Advising & Counseling.

## **Critical Requirements**

## The following outline of Critical Requirements must be met by the semester indicated to ensure that minimal progress will be made in the program selected.

Semester 1: "C" or better in ENGL 1001 and MATH 1021. Semester 2: "C" or better in CHEM 1201 and MATH 1022. Semester 3: "C" or better in BIOL 1201. Semester 4: "C" or better in ENGL 2000.

## Prerequisite Courses:

- English (composition) (6)
- General Chemistry & Lab (8)
- Organic Chemistry (3) \*
- Analytical Reasoning (6) \*\*
- General Biology & Lab (8)
- General Microbiology & Lab (4)
- Science Elective (3) \*\*\*
- General Elective (9) \*\*\*\*
- General Education Humanities (9)
- General Education Social Sciences (6) \*\*\*\*\*
- General Education Arts Electives (3) \*\*\*\*\*

## 65 Total Sem. Hrs.

\* Survey of Organic Chemistry will not be accepted for this requirement.

\*\* Algebra and statistics recommended.

\*\*\* Upper-level biological sciences or molecular biology, chemistry, anatomy or physiology, pathogenic microbiology, or biochemistry recommended.

\*\*\*\* Management, communications, technical writing, or education recommended.

\*\*\*\*\* At least 3 hours must be taken at the 2000 level or higher.

\*\*\*\*\* Art, dance, theater, or fine arts recommended.

#### **Dental Hygiene**

The LSU Dental School in New Orleans offers two professional programs, Dental Hygiene and Dental Laboratory Technology. Bachelor's degrees are available in each discipline in addition to an associate's degree in dental laboratory technology. Students should check the LSU School of Dentistry website for any additional updates or changes to the prerequisite curricula in dental hygiene. Visit http://www.lsusd.lsuhsc.edu for more information.

Approval of course selections must be obtained from the Pre-Allied Health advisor in the Center for Advising & Counseling or from the head of the appropriate professional department at the LSU School of Dentistry. Students are required to meet with the Pre-Allied Health advisor each semester to review their schedule and discuss any possible changes in prerequisites and entrance requirements to this program. A copy of this approval must be placed in the student's file in the Center for Advising & Counseling.

## **Critical Requirements**

## The following outline of Critical Requirements must be met by the semester indicated to ensure that minimal progress will be made in the program selected.

Semester 1: "C" or better in ENGL 1001 and MATH 1021. Semester 2: "C" or better in CHEM 1001 or CHEM 1201. Semester 3: "C" or better in BIOL 1001 or BIOL 1201. Semester 4: "C" or better in ENGL 2000.

## Prerequisite Courses:

- General Biology & Lab (7)
- Human Physiology or Anatomy (3)
- General Microbiology (3)
- English Composition (6)
- English Literature (3) \*
- Introductory Sociology (3)
- Speech (3)
- General Education Art (3) \*\*
- General Chemistry (6)
- Analytical Reasoning (6) \*\*\*
- General Psychology (3)
- General Education Humanities (9)
- General Electives (6)

## 61 Total Sem. Hrs.

\* Should be at the 2000 level or higher.

- \*\* Art, music, or theatre recommended.
- \*\*\* Algebra and higher.

### **Dental Laboratory Technology**

The LSU Dental School in New Orleans offers two professional programs, Dental Hygiene and Dental Laboratory Technology. Bachelor's degrees are available in each discipline in addition to an associate's degree in dental laboratory technology. Students should check the LSU School of Dentistry website for any additional updates or changes to the prerequisite curricula in dental laboratory technology. Visit http://www.lsusd.lsuhsc.edu for more information.

Approval of course selections must be obtained from the Pre-Allied Health advisor in the Center for Advising & Counseling or from the head of the appropriate professional department at the LSU School of Dentistry. Students are required to meet with the Pre-Allied Health advisor each semester to review their schedule and discuss any possible changes in prerequisites and entrance requirements to this program. A copy of this approval must be placed in the student's file in the Center for Advising & Counseling.

## **Critical Requirements**

## The following outline of Critical Requirements must be met by the semester indicated to ensure that minimal progress will be made in the program selected.

Semester 1: "C" or better in ENGL 1001 and MATH 1021.

Semester 2: "C" or better in CHEM 1001 or CHEM 1201.

Semester 3: "C" or better in BIOL 1001 or BIOL 1201.

Semester 4: "C" or better in ENGL 2000.

## Prerequisite Courses:

- Business or Economics (6)
- English Composition (6)
- English Literature (3)
- General Education Fine Arts (3) \*
- General Education Humanities (6)
- General Chemistry (3)
- Analytical Reasoning (6) \*\*
- Natural Science (two semester sequence) (6)
- General Psychology (3)
- Introductory Sociology (3)

## 45 Total Sem. Hrs.

\* Art, music, or theater recommended.

\*\* College algebra and higher.

#### **Pharmacy and Optometry**

The LSU System does not offer a degree program in pharmacy or optometry. Students are encouraged to contact pharmacy and optometry schools where they intend to apply for information about the appropriate coursework.

For students wishing to apply for the pharmacy programs at the University of Louisiana–Monroe, and Xavier University of New Orleans, advising assistance is available from the University College counselors in 150 Allen Hall and 150 Himes Hall.

## **Critical Requirements**

The following outline of Critical Requirements must be met by the semester indicated to ensure that minimal progress will be made in the program selected.

Semester 1: "C" or better in ENGL 1001 and MATH 1021.

Semester 2: "C" or better in MATH 1022 and CHEM 1201.

Semester 3: "C" or better in BIOL 1201.

Semester 4: "C" or better in ENGL 2000.

#### **Pre-Nursing**

PRE-PROFESSION	NAL NURSING
OFFICE	150 Allen Hall
TELEPHONE	225-578-6822
FAX	225-578-5762

LSU HEALTH SCIENCES CENTER SCHOOL OF NURSING, STUDENT AFFAIRS OFFICE 1900 Gravier Street, Room 321, New Orleans , LA 70112 TELEPHONE 504-568-4197 EMAIL nsstuaffairs@lsuhsc.edu WEBSITE nursing.lsuhsc.edu

The following program is designed for students planning to apply to the Bachelor of Science in Nursing ONLY at the LSU Health New Orleans School of Nursing.

LSU offers a pre-professional nursing program that prepares students to enter the professional nursing curriculum leading to the Bachelor of Science in Nursing at the LSU Health New Orleans School of Nursing (LSUHNO SON).

Admission to the LSUHNO SON is on a competitive basis. Applications for admission to the sophomore year at the LSUHNO SON must be submitted the semester prior to the semester anticipated acceptance to complete the three-year study. Students should consult LSUHNO SON directly for assistance with the application process.

Pre-nursing requirements are subject to change. Students may access the current pre-nursing curriculum online at nursing.lsuhsc.edu

Pre-nursing requirements vary with each professional school of nursing, and entrance to each school is competitive. Prospective nursing students seeking admission to institutions other than the LSU Health New Orleans School of Nursing should obtain the entrance requirements from these schools directly.

## **Critical Requirements**

# The following outline of Critical Requirements must be met by the semester indicated to ensure that minimal progress will be made in the program selected. Semester 1: "C" or better in ENGL 1001 and MATH 1021.

Semester 2: "B" or better in EIOL 1001 and MATH IC Semester 2: "B" or better in EIOL 1201. Semester 3: "B" or better in BIOL 1201. Semester 4: "B" or better in BIOL 1011 or BIOL 2051.

## Prerequisite Courses:

Must have a 3.0 minimum GPA on all prerequisite coursework and a "B" or better in all science prerequisites.

- MATH 1021 College Algebra (3)
- ENGL 1001 English Composition (3)
- ENGL 2000 English Composition (3) or
- ENGL 2001 Advanced English Composition (3)
- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)
- CHEM 1201 General Chemistry I (3)

- PSYC 2000 Introduction to Psychology (3)
- SOCL 2001 Introductory Sociology (3)
- BIOL 1011 Microorganisms and Man (3) or
- BIOL 2051 General Microbiology (4)
- PSYC 2070 Developmental Psychology of the Life Span (3)
- General Education Course Arts (3)\*
- General Education Course Humanities (6)\*

# 37 Total Sem. Hrs.

\* See approved list of courses at nursing.lsuhsc.edu or contact Pre-Nursing advisor.

# Required For Bachelor's Degree:

The following courses are required for the bachelor's degree in nursing and may be earned at LSU while students are pending approval for admission to the School of Nursing.

- Humanities course (3)\*
- Statistics (3)\*\*

# 6 Total Sem. Hrs.

\* See approved list of courses at nursing.lsuhsc.edu or contact Pre-Nursing advisor.

\*\*3000 level or higher

#### **Pre-Occupational Therapy**

The Pre-Allied Health advisor is also available to prepare LSU students for the admission process to the School of Allied Health Professions programs in Physical Therapy, Physician Assistant, Rehabilitation Counseling, and Occupational Therapy at the LSU Health. The admission requirements for these graduate programs include a bachelor's degree, completion of specific prerequisite courses, and other selective admission criteria. A complete list of these requirements can be obtained from the Pre-Allied Health advisor in 150 Himes Hall or by visiting the School of Allied Health Professions website at www.alliedhealth.lsuhsc.edu.

Students may apply online for the master's programs approximately nine months prior to the anticipated date of entry. Applications can be obtained from the School of Allied Health Professions website.

# **Critical Requirements**

# The following outline of Critical Requirements must be met by the semester indicated to ensure that minimal progress will be made in the program selected. Semester 1: "C" or better in ENGL 1001 and MATH 1021.

Semester 2: "C" or better in MATH 1022 and CHEM 1201.

Semester 3: "C" or better in SOCL 2001 or PSYC 2000.

Semester 4: "C" or better in ENGL 2000.

#### **Pre-Physical Therapy**

The Pre-Allied Health advisor is also available to prepare LSU students for the admission process to the School of Allied Health Professions programs in Physical Therapy, Physician Assistant, Rehabilitation Counseling, and Occupational Therapy at the LSU Health. The admission requirements for these graduate programs include a bachelor's degree, completion of specific prerequisite courses, and other selective admission criteria. A complete list of these requirements can be obtained from the Pre-Allied Health advisor in 150 Himes Hall or by visiting the School of Allied Health Professions website at www.alliedhealth.lsuhsc.edu.

Students may apply online for the master's programs approximately nine months prior to the anticipated date of entry. Applications can be obtained from the School of Allied Health Professions website.

# **Critical Requirements**

The following outline of Critical Requirements must be met by the semester indicated to ensure that minimal progress will be made in the program selected. Semester 1: "C" or better in ENGL 1001 and MATH 1021.

Semester 2: "C" or better in MATH 1022 and CHEM 1201.

Semester 3: "C" or better in BIOL 1201.

Semester 4: "C" or better in ENGL 2000.

#### **Pre-Physician's Assistant**

The Pre-Allied Health advisor is also available to prepare LSU students for the admission process to the School of Allied Health Professions programs in Physical Therapy, Physician Assistant, Rehabilitation Counseling, and Occupational Therapy at LSU Health. The admission requirements for these graduate programs include a bachelor's degree, completion of specific prerequisite courses, and other selective admission criteria. A complete list of these requirements can be obtained from the Pre-Allied Health advisor in 150 Himes Hall or by visiting the School of Allied Health Professions website at www.alliedhealth.lsuhsc.edu.

Students may apply online for the master's programs approximately nine months prior to the anticipated date of entry. Applications can be obtained from the School of Allied Health Professions website.

# **Critical Requirements**

The following outline of Critical Requirements must be met by the semester indicated to ensure that minimal progress will be made in the program selected. Semester 1: "C" or better in ENGL 1001 and MATH 1021.

Semester 2: "C" or better in MATH 1022 and CHEM 1201.

Semester 3: "C" or better in BIOL 1201.

Semester 4: "C" or better in ENGL 2000.

### **Rehabilitation Counseling**

The Pre-Allied Health advisor is also available to prepare LSU students for the admission process to the School of Allied Health Professions programs in Physical Therapy, Physician Assistant, Rehabilitation Counseling, and Occupational Therapy at the LSU Health. The admission requirements for these graduate programs include a bachelor's degree, completion of specific prerequisite courses, and other selective admission criteria. A complete list of these requirements can be obtained from the Pre-Allied Health advisor in 150 Himes Hall or by visiting the School of Allied Health Professions website at www.alliedhealth.lsuhsc.edu.

Students may apply online for the master's programs approximately nine months prior to the anticipated date of entry. Applications can be obtained from the School of Allied Health Professions website.

# **College of Agriculture**

WILLIAM B. RICHARDSON Vice President for Agriculture Dean	PHILIP ELZER Executive Assistant Dean
LESLIE BLANCHARD	MARIA CAZES
Assistant Dean	Director of Operations
JENNIFER NEAL	BRANDON GUILLORY
Director of Student Services	Academic Coordinator
AMANDA L. MARTIN	HENRY HEBERT
Director of Recruitment and Retention	Manager of Recruitment
DEAN'S OFFICE	STUDENT SERVICES
142 Martin D. Woodin Hall	106 Martin D. Woodin Hall
TELEPHONE 225-578-2081	TELEPHONE 225-578-2065
FAX 225-578-2526	FAX 225-578-2526

# Departments, Schools, and Curricula

The dean, directors of schools, heads of departments, and members of the faculty of the college will consult with students on their choices of curricula. Requests for substitutions for required courses in any curricula in the college must have approval of the dean, upon recommendation of the head of the department or school. A maximum of six semester hours of basic ROTC and eight semester hours of advanced ROTC may be allowed for elective credit in any curriculum.

- Department of Agricultural Economics & Agribusiness
- Department of Experimental Statistics
  - Statistics School of Animal Sciences
- School of Animal Sciences
  - School of Renewable Natural Resources
- Department of Agricultural and Extension Education and Evaluation
- Department of Plant Pathology & Crop Physiology
- School of Nutrition & Food
- Sciences

- Department of Entomology
- Department of Textiles, Apparel Design & Merchandising
- School of Plant, Environmental & Soil Sciences

The College of Agriculture was established at LSU in 1908; however, its roots go back to the first graduation class that had, as one of its five graduates, a planter. The mission of today's College of Agriculture is one rooted in business, science, and technology. The application of knowledge to meeting the world's food and fiber needs remains the common thread that binds the college's past to its future.

The college's land-grant mission dates to 1862 and consists of three emphases: learning, discovery, and active engagement in our community. The discovery and engagement components of the college's mission are often conducted in concert with the LSU Agricultural Center. Many faculty hold joint appointments with the Louisiana Agricultural Experimental Station or the Louisiana Cooperative Extension Service—the research and education units of the LSU Agricultural Center. The interlinking of learning, discovery, and engagement are hallmarks of the land-grant system and are likewise the cornerstones of the College of Agriculture's strategic agenda for the future.

The College of Agriculture is home to 8 majors and nearly 40 areas of concentration within 10 academic departments and schools. All of the programs provide an interdisciplinary educational experience that reflects the latest in science and technology and is built on the five focus areas that are core to the college's strategic agenda.

# **Degree Programs**

All undergraduate degrees in the College of Agriculture are Bachelor of Science degrees. The following programs are offered by the College of Agriculture:

- Agricultural Business
- Agriculture and Extension Education
- Plant & Soil Systems\*
- Animal Sciences
- Nutrition & Food Sciences
- Textiles, Apparel & Merchandising
- Environmental Management Systems
- Natural Resource Ecology & Management

\* The curriculum in plant and soil systems consolidates the curricula in the areas of agronomy, entomology, horticulture, plant pathology, and crop physiology. Students in this curriculum take core courses that provide a basic knowledge required for specialization in one of the eight areas of concentration: agricultural pest management (entomology emphasis), agricultural pest management (plant pathology emphasis), crop science, horticultural sciences, turf and landscape management, soil science, sustainable production systems, and urban entomology. Each area is further individualized by the addition of approved and free electives.

# Vision

To be a leading college of agriculture, taking undergraduate and graduate students to the highest levels of intellectual and personal development in the milieu of a competitive research, service, and teaching land-grant university.

# Mission

To provide programs of excellence to educate undergraduate and graduate students of agriculture, environmental sciences, renewable natural resource sciences, human resource sciences, quantitative sciences, and human sciences; to support and encourage research, public service, and other scholarly pursuits; to further the purposes of the land-grant college system for the benefit of the citizens of Louisiana, the nation, and the global community.

#### **Strategic Agenda**

To achieve our mission, the College of Agriculture has developed a strategic agenda focused on five interdisciplinary areas. These areas encompass broad fields of work and are, by their content, interdisciplinary and cross many administrative lines both within the college and in other administrative units. In particular, these areas coincide with and closely follow the research and development agenda of the LSU Agricultural Center.

- Environmental quality and renewable resource management
- Bioscience and technology in agriculture
- Processes and products for added value
- Agribusiness, consumer science, and global competitiveness
- Food quality, nutrition, and health

# Coordination with the LSU Agricultural Center

The College of Agriculture, in coordination with the LSU Agricultural Center, offers students unique and unparalleled educational opportunities. The Louisiana Agricultural Experimental Station maintains research programs in Baton Rouge and at branch stations throughout Louisiana. The Louisiana Cooperative Extension Service disseminates knowledge throughout Louisiana through its network of specialists in Baton Rouge, county agents, and family and consumer sciences in every parish. A compressed video system that links all areas of the state greatly facilitates the delivery of educational programming.

Close cooperation between the college and the Agricultural Center provides an instructional program of exceptional quality, combining knowledge and the latest in technology and application. Because many faculty members in the college also hold appointments in the Agricultural Center, students are exposed to the latest in cutting-edge research and how that knowledge is disseminated to the field through the extension service.

The College of Agriculture and the Agricultural Center are actively involved in disseminating new knowledge and methods throughout the world. Internationally experienced faculty and staff bring their insights and experiences into the classroom to further enhance the learning experience. An active international program provides opportunities for students to gain valuable international experience that can assist them in future employment or study. The college and the Agricultural Center are currently active in Central and South America, Southeast Asia, West Africa, Europe, and countries of the former Soviet Union.

# Facilities

Facilities for instructional purposes include more than 4,500 acres of farm and timber land and buildings for the care and study of crops and plants, livestock and poultry, and wildlife and forests.

Computer facilities, laboratories, and related research facilities are used for teaching purposes. Land and facilities at branch research stations throughout Louisiana also play a part in the teaching program, particularly at the graduate level. The state's land and water resources; plant, animal, and aquatic life; and its communities and people strengthen instruction through a constantly changing complex of hundreds of research projects throughout the state that are coordinated with the teaching program. Similarly, research, teaching, and extension activities in foreign countries are made an active part of the classroom instruction.

Animal resources include beef and dairy cattle, goats, sheep, swine and poultry that are used in extension, teaching and research. We have modern facilities to conduct animal activities as well facilities for processing meat, poultry and dairy products.

# **Admission Requirements**

Within the framework of university regulations, students may be admitted to the college according to the following policies:

- Entering freshmen who meet the university admissions standards and have a declared major within the College of Agriculture will be directly admitted to the College of Agriculture.
- Students transferring from another academic unit on the LSU campus will be admitted to the College of Agriculture after they have earned at least a 2.00 cumulative grade point average, 2.00 LSU grade point average, and 2.00grade-point average in major (all courses accepted towards degree requirements), as well as a "C" or better in MATH 1021or higher and a "C" or better inENGL 1001(ENGL 1004for international students).
- Students transferring from another institution must also meet university transfer admission requirements as detailed in this catalog under "Undergraduate Admissions."
- On recommendation of the appropriate department head/school director and the dean of the college, probationary admission may be granted in special cases.
- Students not meeting requirements may appeal their admission by contacting the College of Agriculture's Office of Student Services.

### **Degree Requirements of the College**

The baccalaureate degree is conferred on students who fulfill the following requirements:

- Students must complete their curricula with at least a 2.00 grade point average on all work taken not resulting in grades of "P," "W," or "I." Students must have a 2.00 average on work taken at this university, as well as a 2.00 average on the entire college record.
- Teacher Education Program only: Minimum grade point average of 2.50, cumulative and LSU; passage of all staterequired sections of the PRAXIS II Series; minimum grade of "C" in coursework as specified by the Louisiana Board of Elementary and Secondary Education.
- The last 30 semester hours of the degree program must be taken in residence in the College of Agriculture. Distance Learning Programs courses taken in the last 30 hours will not be considered residence credit without prior approval of the department head concerned and the dean of the college.
- Graduation check-out must be completed and approved by the Dean's Office during the semester prior to graduation.

# **Enrollment in Two Degree Programs**

With the dean's approval, a student may be enrolled in two degree programs concurrently. A student can enroll as a dual registrant using one of the following procedures:

- Dual Enrollment within the College of Agriculture–By completing residence and academic requirements for two degree programs, a student may earn one bachelor of science degree with two majors. By completing residence and academic requirements and earning 30 hours over the degree requiring the fewer number of hours, a student may earn two separate bachelor's degrees.
- Dual Enrollment in the College of Agriculture and a Second Academic College–By completing residence and academic requirements for two degree programs and earning 30 hours more than the degree requiring the fewer number of hours, a student may earn two bachelor's degrees. The student must be accepted for admission to both colleges and must adhere to the regulations of both colleges. In addition, the student must declare a home college where registration will be initiated and permanent files maintained. It is the student's responsibility, however, to maintain contact with the second college to ensure that satisfactory progress is being made toward that degree.

# **Scholastic Requirements**

In addition to university requirements, the College of Agriculture has additional scholastic requirements:

- Students must complete at least one general education English composition course and one general education analytical reasoning course with a "C" or better within the first 30 hours of study.
- Students who fail to earn a 2.00 average in each of two consecutive regular semesters and whose LSU or cumulative grade point average is below a 2.00 will be declared ineligible to continue in the College of Agriculture.
- Seniors who have completed the first semester of the senior year, are degree candidates, and are under scholastic suspension from the university may be placed on probation for one additional semester at the discretion of the dean of the College of Agriculture.

# **Readmission to the College**

Students who have completed terms of scholastic suspension from the university may apply for readmission through the Office of Enrollment Management. They may be readmitted only with the approval of the head of the appropriate department/school and the dean of the College of Agriculture. Readmission is not guaranteed.

# **Distance Learning Programs Courses**

Up to one-fourth of the number of hours required for the baccalaureate degree may be taken through Distance Learning Programs courses. Before scheduling such work, however, students should obtain approval from the dean of the college.

# **Graduate Programs**

Through the Graduate School, the college offers master's and doctoral degrees in the fields of agricultural economics, animal and dairy sciences, entomology, food science, human ecology, plant, environmental management, and soil sciences, plant pathology and crop physiology, and renewable natural resources. In addition, a master's degree is offered in applied statistics. For further details, consult "The Graduate School" section of this catalog.

# Louisiana Consortium of Public Agricultural Colleges (LCPAC)

Louisiana State University is a member of the Louisiana Consortium of Public Agricultural Colleges (LCPAC). The consortium has developed a 60-hour, two-year core curriculum to facilitate the transfer of agricultural students among Louisiana public colleges and universities. The articulation policy for the LSU College of Agriculture is shown below.

# **Minor Field Requirements (Optional)**

Students in the College of Agriculture are not required to pursue a minor. They may choose to do so by the guidelines outlined below:

- A minor is the student's field of secondary academic emphasis. A minor consists of a minimum of 18 hours of related coursework designed to provide breadth and depth in a student's undergraduate program
- At least nine hours must be taken at the 3000- and/or 4000-level on this campus
- A minimum GPA of 2.00 is required in the minor field on all work taken in the university (all LSU campuses) and on all work taken
- Minors inside the College of Agriculture must be initiated by the department or school administering the majority of the courses constituting the minor. When submitting a minor for approval, the department or school should specify whether its students may elect that minor. All minors must be approved by the college committee on courses and curricula
- Students may not minor and major in the same degree program.

The degree program of a student outside the College of Business may not consist of more than 30 hours of degree credit earned in courses offered by the College of Business.

For a list of all other minors within the College of Agriculture, please see the individual departmental links above.

#### **Minor in Agriculture**

The College of Agriculture also offers a *minor in Agriculture*. To graduate with a minor in agriculture: Choose nine hours from the following: AGEC 2003;AGRI 1005;AGRO 1001;ANSC 1011;EMS 1011;ENTM 2001;NFS 1049;NFS 1110;HORT 2050;AEEE 2001;TAM 2045;RNR 1001.

Choose nine hours from any course (3000/4000-level) within the College of Agriculture.

#### **Minor in Agricultural Communication**

To earn a minor in Agricultural Communication, a student must complete:

MC 2010with a "B" or better.

The following courses must be completed with a grade of "C" or better:MC 2000,AEEE 2011,AEEE 3010,and one additional course chosen from:MC 2035,MC 2040,MC 3010,MC 3504, AEEE 4011

#### **Minor in Plant Biotechnology and Crop Development**

An undergraduate minor in plant biotechnology and crop development is available to students in all majors except Plant and Soil Systems. To graduate with this minor, students must complete 18 hours consisting of the following courses:PLHL 3060(BIOL 3060) and AGRO 4064and ten additional hours from among AGRO 3010, AGRO 4052, AGRO 4056, AGRO 4071, ENTM 4006, HORT 2860, HORT 4096, PLHL 3900, PLHL 4000, PLHL 4001, PLHL 4444.

# **Pre-Veterinary Medicine**

The pre-veterinary program involves three or more years of training–at least 66 semester hours–prior to application to the LSU School of Veterinary Medicine. Students interested in attending veterinary school can pursue a degree program in one of two areas listed below and enter the LSU School of Veterinary Medicine after completion of the first three years of the chosen curriculum. The pre-veterinary program will allow you to pursue an undergraduate degree in either of the following areas: Animal Sciences or Natural Resource Ecology and Management. After successful completion of the first year of work at the LSU School of Veterinary Medicine, you will be awarded a Bachelor of Science degree in your chosen undergraduate field of study. You will then complete the remainder of the professional curriculum required for a Doctorate of Veterinary Medicine.

# **Pre-Medicine and Pre-Dental**

The College of Agriculture at LSU provides unique opportunities that prepare students to enter careers in medicine, dentistry, and allied health fields. Programs within the School of Animal Sciences and the School of Nutrition and Food Sciences offer appealing options for students; however, students in the college's departments and schools can fulfill pre-medical or pre-dental

course requirements while pursuing a major in an area that matches their own career interest. The College of Agriculture not only provides students with an exceptional academic basis for professional careers in medicine or dentistry, but also enhances their education with communication, leadership skills, and opportunities in community service and research. Alumni of these programs have been accepted at prestigious medical schools such as Columbia, Emory, Johns Hopkins, and the LSU Health Sciences Centers in New Orleans and Shreveport.

# Gamma Sigma Delta

Gamma Sigma Delta is an honor society that promotes the advancement of all disciplines associated with agriculture and their contributions to mankind. We encourage high standards of scholarship and worthy achievements as well as excellence in practice in all branches of agricultural and related sciences.

Members of the LSU chapter include graduate and undergraduate students, faculty members, and administrators representing research, teaching, and outreach. We represent a diversity of disciplines including textiles, renewable natural resources economics, business, nutrition and food science, human resources, workforce development, veterinary medicine, horticulture, and traditional agricultural animals and crops.

# **Undergraduate Career Plan**

Students are encouraged to enrich their studies and prepare for their careers by using the Four Year Career Plan in addition to their academic course of study.

# Department of Agricultural and Extension Education and Evaluation

# **CURRICULUM:**

#### Agricultureand Extension Education

The Department of Agricultural and Extension Education and Evaluation (AEEE) prepares and supports highly-qualified agricultural & extension professionals to teach, lead, and serve youth and adults. AEEE's focus is on two of our greatest assets—the agricultural industry and our human capital. Students in this program learn about effective teaching methods and techniques as they prepare for careers in both formal and non-formal education environments of the agriculture sector.

Concentrations are available in Extension and Non-Formal Education and Teaching in Formal Education. Students interested in the Agricultural Education major should contact the Department of Agricultural and Extension Education and Evaluation for deadlines and specific details about each concentration. Students who anticipate entering the Teaching in Formal Education concentration for teacher certification should inform the faculty advisor at the time the undergraduate program of study is being developed. Students interested in a teacher certification program other than agricultural education should contact the College of Human Sciences and Education.

# **Admission Requirements**

Extension and Non-Formal Education Concentration

Students meeting admissions requirements for the College of Agriculture are eligible for admission to the Extension and Non-Formal Education concentration. Graduates in this concentration are prepared for careers in:

- Cooperative Extension Service as agents, educators, youth development professionals, and specialists;
- Agriculture professions related to business, communication, industry, and government; and
- Other non-profit agencies and organizations.

Teaching in Formal Education Concentration

The teacher certification program prepares students specifically for teaching agricultural education in secondary schools (grades 6-12); however, teacher education graduates are also in demand for working in agricultural business, for serving as county extension agents, and other professional positions in agriculture. Students are admitted to the agricultural education teaching in formal education concentration according to the following criteria:

- Students must have a 2.50 cumulative and LSU grade point average and passing scores on all parts of the Praxis Core Academic Skills for Educators (PRAXIS CORE) or minimum ACT composite score of 22 or minimum SAT composite score of 1030; and
- A minimum grade point average of 2.50, cumulative and LSU, is required for entry into and continuation in upper (3000/4000) level agricultural education courses, including student teaching.
- A grade of Cor better is required for all CATS critical courses, agriculture content courses and education courses in both EDCI and AEEE.
- The Praxis Agriculture Content Exam (5701) and Principles of Teaching and Learning Grades 7-12 (5624) must be completed by April 1 for Spring graduates and November 1 for Fall graduates.

#### Agriculture and Extension Education, B.S.

Areas of Concentration Extension and Non-Formal Education

#### **CRITICAL REQUIREMENTS** SEMESTER 1:MATH 1021.

SEMESTER 1:MATH 1021. SEMESTER 2:ENGL 1001. SEMESTER 3: AEEE 2001. SEMESTER 4: PSYC 2060. SEMESTER 5: PSYC 2078.

#### Semester 1

CRITICAL: MATH 1021.

- ENGL 1001 English Composition (3)
- MATH 1021 College Algebra (3)
- AGRI 1001 Introduction to Agriculture (1)
- AEEE 1001 Learning Leadership in Agricultural Sciences, Natural Resources, and Extension (3)
- AEEE 2001 Foundations of Agricultural & Extension Education (3)
- BIOL 1001 General Biology (3) or
- BIOL 1201 Biology for Science Majors I (3)

Total Semester Hours: 16

#### Semester 2

CRITICAL: ENGL 1001.

- MATH 1100 The Nature of Mathematics (3) or
- MATH 1431 Calculus with Business and Economic Applications (3)
- BIOL 1002 General Biology (3) or
- BIOL 1202 Biology for Science Majors II (3)
- CHEM 1001 Chemical Fundamentals (3) or
- CHEM 1201 General Chemistry I (3)
- AGRO 1001 Plants and People (3)
- LA 1201 Introduction to Landscape Architecture (3) or Approved Art Course (3)
- Total Semester Hours: 15

# Semester 3

CRITICAL: AEEE 2001.

- EDCI 2001 Education, Schooling and Society (3) or Approved Social Sciences Course (3)
- PSYC 2060 Educational Psychology (3)
- ENGL 2673 Literature and Ethnicity (3) or Approved Humanities Course (3)

- ANSC 1011 Introduction to Animal Science (3)
- Approved Elective (3)<sup>1</sup>

#### Total Semester Hours: 15 Semester 4

#### CRITICAL: PSYC 2060.

- ENGL 2000 English Composition (3)
- LA 1203 Views of the American Landscape (3) or Approved Humanities Course (3)
- AGEC 2003 Introduction to Agricultural Economics (3)
- PSYC 2078 Adolescent Psychology (3)
- CMST 2060 Public Speaking (3)

#### Total Semester Hours: 15

#### Semester 5

#### CRITICAL: PSYC 2078.

- NFS 1110 Introduction to Nutritional Sciences (3)
- HORT 2050 General Horticulture (3)
- AEEE 4101 Instructional Design & Evaluation for Agricultural & Extension Education (3)
- KIN 2601 First Aid (1)
- Approved Electives (4)<sup>1</sup>

#### **Total Semester Hours: 14**

#### Semester 6

- AEEE 3301 Introduction to Program Evaluation for Agricultural and Extension Educators (3)
- AEEE 4026 Informal Education Programs for Youth (3)

#### • Approved Electives (9)<sup>1</sup>

**Total Semester Hours: 15** 

#### Semester 7

- AEEE 4010 Foundations of Cooperative Extension (3)
- AEEE 4102 Teaching Methods in Agricultural & Extension Education (3)
- LHRD 4025 Principles of Adult Education (3)
- AEEE 4011 Communications in Agricultural & Extension Education (3)
- Approved Electives (3)<sup>1</sup>

# Total Semester Hours: 15

### Semester 8

- AEEE 4505 Youth Leadership (3) or
- LHRD 3723 Leadership Concepts and Principles

   (3)
- AEEE 4506 Service Learning in Community-Based Organization (3)

• AEEE 4806 Professional Internship in Agricultural & Extension Education (9)

#### Total Semester Hours: 15

#### 120 Total Sem. Hrs.

<sup>1</sup> - Students will be allowed to select 19 hours of approved agricultural electives. Students will develop a plan of study in consultation with a faculty advisor. See departmental advisor for list of electives.

### Teaching in Formal Education CRITICAL REQUIREMENTS

SEMESTER 1: MATH 1021. SEMESTER 2: ENGL 1001. SEMESTER 3: AEEE 2001. SEMESTER 4: PSYC 2060. SEMESTER 5: PSYC 2078.

#### Semester 1 CRITICAL:MATH 1021.

- ENGL 1001 English Composition (3)
- MATH 1021 College Algebra (3)
- AEEE 2001 Foundations of Agricultural & Extension Education (3)
- BIOL 1001 General Biology (3) or
- BIOL 1201 Biology for Science Majors I (3)
- AGRI 1001 Introduction to Agriculture (1)
- AGEC 1003 Introduction to Agricultural Business (3)

#### Total Semester Hours: 16 Semester 2

CRITICAL: ENGL 1001.

- MATH 1100 The Nature of Mathematics (3) or
- MATH 1431 Calculus with Business and Economic Applications (3)
- BIOL 1002 General Biology (3) or
- BIOL 1202 Biology for Science Majors II (3)
- CHEM 1001 Chemical Fundamentals (3) or
- CHEM 1201 General Chemistry I (3)
- LA 1201 Introduction to Landscape Architecture (3)
- AGRO 1001 Plants and People (3)

### Total Semester Hours: 15

#### Semester 3

CRITICAL: AEEE 2001.

- EDCI 2001 Education, Schooling and Society (3)
- PSYC 2060 Educational Psychology (3)
- ANSC 1011 Introduction to Animal Science (3)
- ENTM 2001 Insects in the Environment (3)
- Approved Agricultural Education Technical Core Course (3)<sup>1</sup>

# Total Semester Hours: 15 Semester 4

### CRITICAL:PSYC 2060.

- ENGL 2000 English Composition (3)
- PSYC 2078 Adolescent Psychology (3)
- LA 1203 Views of the American Landscape (3)
- AEEE 2002 Coaching and Contest in Agricultural and Extension Education (3)
- AGEC 2003 Introduction to Agricultural Economics (3)

#### Total Semester Hours: 15

#### Semester 5

#### CRITICAL: PSYC 2078.

- AEEE 4101 Instructional Design & Evaluation for Agricultural & Extension Education (3)
- KIN 2601 First Aid (1)
- EDCI 3136 Reading in the Content Areas (3)
- AGRO 2051 Soil Science (4)
- CMST 1061 Fundamentals of Communication (3) or
- HIST 1001 Western Civilization to 1500 (3) or
- HIST 1003 Western Civilization Since 1500 (3) or
- HIST 1005 World History to 1500 (3) or
- HIST 1007 World History Since 1500 (3) or
- HIST 2055 The United States to 1865 (3) or
- HIST 2057 The United States from 1865 to the Present (3)

# Total Semester Hours: 14

### Semester 6

- CMST 2060 Public Speaking (3)
- AEEE 4504 Development of Community Programs in Agricultural Education (3)
- AEEE 2003 Introduction to Agricultural Mechanics (3)
- EDCI 2700 Characteristics of Learners with Exceptionalities (3)
- Approved Agricultural Education Technical Core Course (3)<sup>1</sup>

#### Total Semester Hours: 15

#### Semester 7

- AEEE 4102 Teaching Methods in Agricultural & Extension Education (3)
- HORT 2050 General Horticulture (3)
- RNR 1001 Natural Resource Conservation (3)
- Approved Agricultural Education Technical Core Courses (6)<sup>1</sup>

#### Total Semester Hours: 15 Semester 8

• AEEE 4200 Teaching in Agricultural & Extension Education Content Areas (3)

- AEEE 4201 Laboratory Management in Agricultural & Extension Education (3)
- AEEE 4806 Professional Internship in Agricultural & Extension Education (9)
- **Total Semester Hours: 15**

#### 120 Total Sem. Hrs.

<sup>1</sup> - Students will be allowed to select 12hours of approved agricultural electives. Students will develop a plan of study in consultation with a faculty advisor. See departmental advisor for list of electives.

#### **Extension Education Minor**

*This minor is not available to students majoring in Agricultural Education.* To graduate with a *minor in Extension Education,* a student must complete a minimum of 18 hours of coursework in extension education. Specific requirements include: AEEE 4101, AEEE 4102, AEEE 3301, AEEE 4010, AEEE 4011, and LHRD 3723.

#### **Youth Development Minor**

*This minor is not available to students majoring in Agricultural Education.* To graduate with a *minor in youth development*, a student must complete a minimum of 18 hours of coursework in extension education. Specific requirements include: AEEE 3301, AEEE 4026, AEEE 4027, AEEE 4505, AEEE 4506, and AEEE 4010.

# **Department of Agricultural Economics & Agribusiness**

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# **CURRICULUM:**

#### Agricultural Business

The agricultural business curriculum offered by the Department of Agricultural Economics & Agribusiness provides training for a wide variety of careers in the agribusiness industry. The program integrates the disciplines of business and agricultural business, economics, quantitative methods, and agricultural sciences. Course offerings include courses in agribusiness management, marketing, credit and finance, agricultural production economics, natural resource economics, agricultural policy and law, price analysis, statistics, quantitative methods, and computer applications.

The curriculum in agricultural business emphasizes use of management, marketing, finance, law, and other business principles in the solution of problems in the agribusiness industry. This curriculum provides students excellent preparation for careers in farm management, agricultural law, commodity trading, sales, marketing, real estate, international trade, insurance, agricultural processing, management, communications, public relations, finance, and appraisal.

Students majoring in curricula offered through other departments in the College of Agriculture may minor in agricultural business. See the listing of the College of Agriculture minors for details.

# Agricultural Business, B.S. Agricultural Business CRITICAL REQUIREMENTS: SEMESTER 1: MATH 1021.

SEMESTER 2: MATH 1431/MATH 1550. SEMESTER 3: "C" or better in AGEC 2003/ECON 2000(see footnote 2). SEMESTER 4: "C" or better in ECON 2030/ECON 2010(see footnote 2). SEMESTER 5: "C" or better in ACCT 2000/ACCT 2001; AGEC 3003.

General Education Course Requirements • Arts, humanities, and social sciences-select from approved general education courses listed in the section "The General Education Component of Undergraduate Education".

#### Semester 1 CRITICAL: MATH 1021.

- AGEC 1003 Introduction to Agricultural Business (3)
- General Education course Humanities (3)
- GeneralEducation course- Natural Sciences (3) <sup>1</sup>
- ENGL 1001 English Composition (3)
- MATH 1021 College Algebra (3)

#### Total Semester Hours: 15 Semester 2 CRITICAL: MATH 1431/MATH 1550.

- MATH 1431 Calculus with Business and Economic Applications (3) or
- MATH 1550 Analytic Geometry and Calculus I (5)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course- Arts (3)
- Electives or ROTC(3-1)
- Elective College of Agriculture (3)

#### **Total Semester Hours: 15**

#### Semester 3

**CRITICAL:** "C" or better in AGEC 2003/ECON 2000 (see footnote 2).

- AGEC 2003 Introduction to Agricultural Economics (3) or
- ECON 2000 Principles of Microeconomics (3) <sup>2</sup>
- English course  $(3)^4$
- CMST 1061 Fundamentals of Communication (3) or
- CMST 2060 Public Speaking (3)

- General Education course Natural Sciences (3)<sup>1</sup>
- Elective College of Agriculture (3)

### **Total Semester Hours: 15**

#### Semester 4

**CRITICAL:**"C" or better in ECON 2030/ECON 2010 (see footnote 2).

- ECON 2010 Principles of Macroeconomics (3) or
- ECON 2030 Economic Principles (3) <sup>2</sup>
- ACCT 2000 Survey of Accounting (3) or
- ACCT 2001 Introductory Financial Accounting (3)
- ENGL 2000 English Composition (3)
- EXST 2201 Introduction to Statistical Analysis (4) or
- ISDS 2001 Business Statistics and Analytics II

   (3)<sup>3</sup>
- Elective or ROTC (3-2)

#### Total Semester Hours: 15

#### Semester 5

**CRITICAL:** "C" or better in ACCT 2000/ACCT 2001; AGEC 3003.

- ECON 2035 Money, Banking and Macroeconomic Activity (3)
- AGEC 3003 Economic Analysis in Agricultural Business (3)
- AGEC 3413 Agricultural Business Management Decisions (3)
- BLAW 3200 Introduction to Law (3) or
- BLAW 3201 Business Law (3)
- Elective College of Agriculture (3)

#### Total Semester Hours: 15

#### Semester 6

- ACCT 2101 Introductory Managerial Accounting (3)
- AGEC 3203 Agricultural Commodity Marketing and Risk Management (3)
- AGEC 3503 Natural Resource Economics (3) or
- AGEC 4613 Agricultural Trade (3)
- MGT 3200 Principles of Management (3)
- MKT 3401 Principles of Marketing (3)

# Total Semester Hours: 15 Semester 7

- AGEC 4403 Agricultural Finance (3)
- AGEC 4603 Agricultural Policy (3)
- General Education course Humanities (3)
- General Electives (6)
- **Total Semester Hours: 15**

#### Semester 8

- AGEC 4273 Agricultural Price Analysis (3)
- AGEC 4433 Agricultural Business Planning, Management and Policy (3)
- AGEC Electives (9)

### Total Semester Hours: 15

### 120 Total Sem. Hrs.

<sup>1</sup> - For General Education Natural Science, both physical and life sciences must be taken: six hours in a physical/life science sequence; three hours in an area (physical/life) not previously selected.

<sup>2</sup> - Option: Must take either ECON 2000 and ECON 2010 or AGEC 2003 and ECON 2030.

<sup>3</sup> - Students electing to take ISDS 2001 must take an additional hour of general electives or ROTC.

<sup>4</sup> - Select one course from the following: ENGL 2001, ENGL 2002, ENGL 2005, ENGL 2007, ENGL 2008, ENGL 2009, ENGL 2012, ENGL 2024, ENGL 3003, ENGL 3004, or ENGL 3101.

# Areas of Concentration Agribusiness Finance CRITICAL REQUIREMENTS:

SEMESTER 1: MATH 1021. SEMESTER 2: MATH 1431/MATH 1550. SEMESTER 3: "C" or better in AGEC 2003/ECON 2000 (see footnote 2). SEMESTER 4: "C" or better in ECON 2030/ECON 2010

(see footnote 2). SEMESTER 5: "C" or better in ACCT 2000/ACCT 2001; AGEC 3003.

#### Semester 1

CRITICAL:MATH 1021.

- AGEC 1003 Introduction to Agricultural Business (3)
- General Education course Humanities (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- ENGL 1001 English Composition (3)
- MATH 1021 College Algebra (3)

#### Total Semester Hours: 15 Semester 2 CRITICAL: MATH 1431/MATH 1550.

• MATH 1431 Calculus with Business and Economic Applications (3) or

- MATH 1550 Analytic Geometry and Calculus I (5)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Arts (3)
- Elective or ROTC(3-1)
- Elective College of Agriculture (3)
- Total Semester Hours: 15

#### Semester 3

**CRITICAL:** "C" or better in AGEC 2003/ECON 2000 (see footnote 2).

- AGEC 2003 Introduction to Agricultural Economics (3) or
- ECON 2000 Principles of Microeconomics (3)<sup>2</sup>
- CMST 1061 Fundamentals of Communication (3) or
- CMST 2060 Public Speaking (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- Elective College of Agriculture (3)
- English Course (3)<sup>4</sup>

#### Total Semester Hours: 15

#### Semester 4

**CRITICAL:** "C" or better in ECON 2030/ECON 2010 (see footnote 2).

- ACCT 2000 Survey of Accounting (3) or
- ACCT 2001 Introductory Financial Accounting (3)
- ECON 2010 Principles of Macroeconomics (3) or
- ECON 2030 Economic Principles (3) <sup>2</sup>
- ENGL 2000 English Composition (3)
- EXST 2201 Introduction to Statistical Analysis (4) or
- ISDS 2001 Business Statistics and Analytics II

   (3)<sup>5</sup>
- Approved Elective (3-2)

Total Semester Hours: 15 Semester 5 **CRITICAL:**"C" or better in ACCT 2000/ACCT 2001; AGEC 3003.

- ECON 2035 Money, Banking and Macroeconomic Activity (3)
- AGEC 3003 Economic Analysis in Agricultural Business (3)
- AGEC 3413 Agricultural Business Management Decisions (3)
- BLAW 3200 Introduction to Law (3) or
- BLAW 3201 Business Law (3)
- Elective College of Agriculture (3)

# Total Semester Hours: 15

#### Semester 6

- ACCT 2101 Introductory Managerial Accounting (3)
- AGEC 3203 Agricultural Commodity Marketing and Risk Management (3)
- AGEC 3503 Natural Resource Economics (3) or
- AGEC 4613 Agricultural Trade (3)
- MGT 3200 Principles of Management (3)
- MKT 3401 Principles of Marketing (3)

#### Total Semester Hours: 15

#### Semester 7

- AGEC 4403 Agricultural Finance (3)
- AGEC 4603 Agricultural Policy (3)
- General Education course Humanities (3)
- AGEC 3303 Farm Management (3)
- AGEC 4443 Farm and Rural Land Appraisal (3)

#### Total Semester Hours: 15

#### Semester 8

- AGEC 4273 Agricultural Price Analysis (3)
- AGEC 4433 Agricultural Business Planning, Management and Policy (3)
- Finance Electives (6)<sup>3</sup>
- AGEC Elective (3)

#### Total Semester Hours: 15 120 Total Sem. Hrs.

<sup>1</sup> - For General Education Natural Science, both physical and life sciences must be taken: six hours in a physical/life science sequence; three hours in an area (physical/life) not previously selected.

<sup>2</sup> - Option: Must take either ECON 2000 and ECON 2010 or AGEC 2003 and ECON 2030.

<sup>3</sup> - Six hours to be selected from the following areas (1) Real Estate-FIN 3351, FIN 3352, FIN 3353 OR (2) Investment -FIN 3440, FIN 3632, FIN 3715, FIN 3717, FIN 3826.

<sup>4</sup> - Select one course from the following:ENGL 2001, ENGL 2002, ENGL 2005, ENGL 2007, ENGL 2008, ENGL 2009, ENGL 2012, ENGL 2024, ENGL 3003, ENGL 3004, or ENGL 3101.

<sup>5</sup> - Students electing to take ISDS 2001 must take an additional hour of general electives or ROTC.

# Food Industry Management CRITICAL REQUIREMENTS:

SEMESTER 1: MATH 1021.

SEMESTER 2: MATH 1431/MATH 1550.

SEMESTER 3: "C" or better in AGEC 2003/ECON 2000 (see footnote 2).

SEMESTER 4: "C" or better in ECON 2030/ECON 2010 (see footnote 2).

SEMESTER 5: "C" or better in ACCT 2000/ACCT 2001; AGEC 3003.

#### Semester 1 CRITICAL:MATH 1021.

- AGEC 1003 Introduction to Agricultural Business (3)
- General Education course Humanities (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- ENGL 1001 English Composition (3)
- MATH 1021 College Algebra (3)

# Total Semester Hours: 15

#### Semester 2

**CRITICAL:** MATH 1431/MATH 1550.

- MATH 1431 Calculus with Business and Economic Applications (3) or
- MATH 1550 Analytic Geometry and Calculus I (5)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Arts (3)
- Elective or ROTC (3-1)
- Elective College of Agriculture (3)

#### Total Semester Hours: 15

#### Semester 3

- **CRITICAL:** "C" or better in AGEC 2003/ECON 2000 (see footnote 2).
- AGEC 2003 Introduction to Agricultural Economics (3) or
- ECON 2000 Principles of Microeconomics (3)<sup>2</sup>

- CMST 1061 Fundamentals of Communication (3) or
- CMST 2060 Public Speaking (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- English Course (3)<sup>4</sup>
- Elective College of Agriculture (3)

#### **Total Semester Hours: 15**

#### Semester 4

**CRITICAL:** "C" or better in ECON 2030/ECON 2010 (see footnote 2).

- ACCT 2000 Survey of Accounting (3) or
- ACCT 2001 Introductory Financial Accounting (3)
- ECON 2010 Principles of Macroeconomics (3) or
- ECON 2030 Economic Principles (3) <sup>2</sup>
- ENGL 2000 English Composition (3)
- EXST 2201 Introduction to Statistical Analysis (4) or
- ISDS 2001 Business Statistics and Analytics II

   (3)<sup>3</sup>
- Elective or ROTC(3-2)

#### Total Semester Hours: 15

#### Semester 5

**CRITICAL:**"C" or better in ACCT 2000/ACCT 2001; AGEC 3003.

- ECON 2035 Money, Banking and Macroeconomic Activity (3)
- AGEC 3003 Economic Analysis in Agricultural Business (3)
- AGEC 3413 Agricultural Business Management Decisions (3)
- BLAW 3200 Introduction to Law (3) or
- BLAW 3201 Business Law (3)
- Elective College of Agriculture (3)

### Total Semester Hours: 15

#### Semester 6

- ACCT 2101 Introductory Managerial Accounting (3)
- AGEC 3203 Agricultural Commodity Marketing and Risk Management (3)
- AGEC 3503 Natural Resource Economics (3) or
- AGEC 4613 Agricultural Trade (3)

- MGT 3200 Principles of Management (3)
- MKT 3401 Principles of Marketing (3)

#### Total Semester Hours: 15

#### Semester 7

- AGEC 4403 Agricultural Finance (3)
- AGEC 4603 Agricultural Policy (3)
- General Education course Humanities (3)
- AGEC 4243 Food Products Marketing (3)
- AGEC 4203 Intermediate Food and Fiber Products Marketing (3)

# Total Semester Hours: 15

#### Semester 8

- AGEC 4273 Agricultural Price Analysis (3)
- AGEC 4433 Agricultural Business Planning, Management and Policy (3)
- Elective (3)
- See options below (6)<sup>5</sup>

#### Total Semester Hours: 15 120 Total Sem. Hrs.

<sup>1</sup> - For General Education Natural Science, both physical and life sciences must be taken: six hours in a physical/life science sequence; three hours in an area (physical/life) not previously selected.

<sup>2</sup> - Option: Must take either ECON 2000and ECON 2010or AGEC 2003and ECON 2030.

<sup>3</sup> - Students electing to take ISDS 2001must take an additional hour of general electives or ROTC.

<sup>4</sup> - Select one course from the following:ENGL 2001, ENGL 2002, ENGL 2005, ENGL 2007, ENGL 2008, ENGL 2009, ENGL 2012, ENGL 2024, ENGL 3003, ENGL 3004, or ENGL 3101.

<sup>5</sup> - Select six hours from the following: NFS 4070, MKT 3411, MKT 3413, MKT 3421, MKT 4451, MGT 3320, MGT 4500, ENTR 4113, MGT 4620.

# International Business CRITICAL REQUIREMENTS:

SEMESTER 1: MATH 1021.

SEMESTER 2: MATH 1431/MATH 1550. SEMESTER 3: "C" or better in AGEC 2003/ECON 2000 (see footnote 2).

SEMESTER 4: "C" or better in ECON 2030/ECON 2010 (see footnote 2).

SEMESTER 5: "C" or better in ACCT 2000/ACCT 2001; AGEC 3003.

#### CRITICAL:MATH 1021.

- AGEC 1003 Introduction to Agricultural Business (3)
- General Education course Humanities (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- ENGL 1001 English Composition (3)
- MATH 1021 College Algebra (3)

#### Total Semester Hours: 15

#### Semester 2

#### CRITICAL: MATH 1431/MATH 1550.

- MATH 1431 Calculus with Business and Economic Applications (3) or
- MATH 1550 Analytic Geometry and Calculus I (5)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Arts (3)
- Elective or ROTC(3-1)
- Elective College of Agriculture (3)
- Total Semester Hours: 15

#### Semester 3

**CRITICAL:** "C" or better in AGEC 2003/ECON 2000 (see footnote 2).

- AGEC 2003 Introduction to Agricultural Economics (3) or
- ECON 2000 Principles of Microeconomics (3)<sup>2</sup>
- CMST 1061 Fundamentals of Communication (3) or
- CMST 2060 Public Speaking (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- English Course  $(3)^4$
- Elective College of Agriculture (3)

#### Total Semester Hours: 15

#### Semester 4

**CRITICAL:** "C" or better in ECON 2030/ECON 2010 (see footnote 2).

- ACCT 2000 Survey of Accounting (3) or
- ACCT 2001 Introductory Financial Accounting (3)
- ECON 2010 Principles of Macroeconomics (3) or
- ECON 2030 Economic Principles (3) <sup>2</sup>
- ENGL 2000 English Composition (3)

Semester 1

- EXST 2201 Introduction to Statistical Analysis (4) or
- ISDS 2001 Business Statistics and Analytics II

   (3)<sup>5</sup>
- Elective or ROTC(3-2)

#### Total Semester Hours: 15 Semester 5

- **CRITICAL:** "C" or better in ACCT 2000/ACCT 2001; AGEC 3003.
- ECON 2035 Money, Banking and Macroeconomic Activity (3)
- AGEC 3003 Economic Analysis in Agricultural Business (3)
- AGEC 3413 Agricultural Business Management Decisions (3)
- BLAW 3200 Introduction to Law (3) or
- BLAW 3201 Business Law (3)
- Elective College of Agriculture (3)

# Total Semester Hours: 15

#### Semester 6

- ACCT 2101 Introductory Managerial Accounting (3)
- AGEC 3203 Agricultural Commodity Marketing and Risk Management (3)
- AGEC 3503 Natural Resource Economics (3) or
- AGEC 4613 Agricultural Trade (3)
- MGT 3200 Principles of Management (3)
- MKT 3401 Principles of Marketing (3)

# Total Semester Hours: 15

Semester 7

- AGEC 4403 Agricultural Finance (3)
- AGEC 4603 Agricultural Policy (3)
- General Education course Humanities (3)
- AGEC 4613 Agricultural Trade (3)
- Foreign Language course (3)
- **Total Semester Hours: 15**

#### Semester 8

- AGEC 4273 Agricultural Price Analysis (3)
- AGEC 4433 Agricultural Business Planning, Management and Policy (3)
- Foreign Language course (3)
- Secoptions below (6)<sup>3</sup>
- **Total Semester Hours: 15**

120 Total Sem. Hrs.

<sup>1</sup> - For General Education Natural Science, both physical and life sciences must be taken: six hours in a physical/life science sequence; three hours in an area (physical/life) not previously selected.

<sup>2</sup> - Option: Must take either ECON 2000and ECON 2010or AGEC 2003and ECON 2030.

3 - Select six hours from the following: ECON 4520, ECON 4550, MKT 4443.

<sup>4</sup> - Select one course from the following:ENGL 2001, ENGL 2002, ENGL 2005, ENGL 2007, ENGL 2008, ENGL 2009, ENGL 2012, ENGL 2024, ENGL 3003, ENGL 3004, or ENGL 3101.

<sup>5</sup> - Students electing to take ISDS 2001must take an additional hour of general electives or ROTC.

#### Rural Development CRITICAL REQUIREMENTS: SEMESTER 1: MATH 1021.

SEMESTER 2: MATH 1431/MATH 1550.

SEMESTER 3: "C" or better in AGEC 2003/ECON 2000 (see footnote 2).

SEMESTER 4: "C" or better in ECON 2030/ECON 2010 (see footnote 2).

SEMESTER 5: "C" or better in ACCT 2000/ACCT 2001; AGEC 3003.

# Semester 1

### CRITICAL: MATH 1021.

- AGEC 1003 Introduction to Agricultural Business (3)
- General Education course Humanities (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- ENGL 1001 English Composition (3)
- MATH 1021 College Algebra (3)

#### Total Semester Hours: 15

#### Semester 2

#### **CRITICAL:** MATH 1431/MATH 1550.

- MATH 1431 Calculus with Business and Economic Applications (3) or
- MATH 1550 Analytic Geometry and Calculus I (5)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Arts (3)
- Elective or ROTC(3-1)
- Elective College of Agriculture (3)

#### **Total Semester Hours: 15**

#### Semester 3

**CRITICAL:** "C" or better in AGEC 2003/ECON 2000 (see footnote 2).

- AGEC 2003 Introduction to Agricultural Economics (3) or
- ECON 2000 Principles of Microeconomics (3)<sup>2</sup>
- CMST 1061 Fundamentals of Communication (3) or
- CMST 2060 Public Speaking (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- Elective College of Agriculture (3)
- English Course (3)<sup>4</sup>

Total Semester Hours: 15

#### Semester 4

**CRITICAL:** "C" or better in ECON 2030/ECON 2010 (see footnote 2).

- ACCT 2000 Survey of Accounting (3) or
- ACCT 2001 Introductory Financial Accounting (3)
- ECON 2010 Principles of Macroeconomics (3) or
- ECON 2030 Economic Principles (3) <sup>2</sup>
- ENGL 2000 English Composition (3)
- EXST 2201 Introduction to Statistical Analysis (4) or
- ISDS 2001 Business Statistics and Analytics II

   (3)<sup>5</sup>
- Elective or ROTC(3-2)

#### Total Semester Hours: 15 Semester 5

**CRITICAL:**"C" or better in ACCT 2000/ACCT 2001; AGEC 3003.

- ECON 2035 Money, Banking and Macroeconomic Activity (3)
- AGEC 3003 Economic Analysis in Agricultural Business (3)
- AGEC 3413 Agricultural Business Management Decisions (3)
- BLAW 3200 Introduction to Law (3) or
- BLAW 3201 Business Law (3)
- Elective College of Agriculture (3)

#### Total Semester Hours: 15 Semester 6

- ACCT 2101 Introductory Managerial Accounting (3)
- AGEC 3203 Agricultural Commodity Marketing and Risk Management (3)
- AGEC 3503 Natural Resource Economics (3) or
- AGEC 4613 Agricultural Trade (3)
- MGT 3200 Principles of Management (3)
- MKT 3401 Principles of Marketing (3)

#### Total Semester Hours: 15

#### Semester 7

- AGEC 4403 Agricultural Finance (3)
- AGEC 4603 Agricultural Policy (3)
- General Education course Humanities (3)
- AGEC 4623 Rural Resource and Community Development (3)
- SOCL 2001 Introductory Sociology (3)

#### Total Semester Hours: 15 Semester 8

- AGEC 4273 Agricultural Price Analysis (3)
- AGEC 4433 Agricultural Business Planning, Management and Policy (3)
- See options below (9) <sup>3</sup>

### Total Semester Hours: 15 120 Total Sem. Hrs.

<sup>1</sup> - For General Education Natural Science, both physical and life sciences must be taken: six hours in a physical/life science sequence; three hours in an area (physical/life) not previously selected.

<sup>2</sup> - Option: Must take either ECON 2000 and ECON 2010 or AGEC 2003 and ECON 2030.

3 - Select nine hours from the following: ECON 4070, ECON 4110, ECON 4130, GEOG 4047, GEOG 4077,SOCL 3505, SOCL 4331, SOCL 4551, SOCL 4701.

<sup>4</sup> - Select one course from the following:ENGL 2001, ENGL 2002, ENGL 2005, ENGL 2007, ENGL 2008, ENGL 2009, ENGL 2012, ENGL 2024, ENGL 3003, ENGL 3004, or ENGL 3101.

<sup>5</sup> - Students electing to take ISDS 2001 must take an additional hour of general electives or ROTC.

#### **Agricultural Business Minor**

To graduate with a *minor in agricultural business* (18 hrs.), students must complete:

- AGEC 2003 and ECON 2030, or ECON 2000 and ECON 2010;
- at least six credit hours of approved electives chosen from AGEC 3003, AGEC 3203, AGEC 3303, AGEC 3413, AGEC 3503, and AGEC 3803;\*
- at least six credit hours of approved electives chosen from AGEC 4203, AGEC 4243, AGEC 4273, AGEC 4403, AGEC 4443, AGEC 4603, AGEC 4613, and AGEC 4623.\*

The minor in agricultural business is not available to students majoring in agricultural business.

\*Students should be aware that some 3000 and 4000 level AGEC classes have prerequisites beyond the required courses for the minor in Agricultural Business (AGEC 2003 and ECON 2030, or ECON 2000 and ECON 2010).

# **Department of Entomology**

OFFICE 404 Life Sciences Building

TELEPHONE 225-578-1634

FAX 225-578-2257

# **CURRICULUM:**

• Plant and Soil Systems (Agricultural Pest Management Area; Urban Entomology Area)

# **Plant & Soil Systems**

The curriculum in plant and soil systems consolidates the curricula in the areas of agronomy, entomology, horticulture, and plant pathology and crop physiology. Students in this curriculum take core courses that provide a basic knowledge required for specialization in one of the nine areas of concentration: agricultural pest management, crop science, environmental horticulture, horticultural science, landscape management, soil science, sustainable production systems, turf grass management, and urban entomology. Each area is further individualized by the addition of approved and free electives.

The Department of Plant Pathology & Crop Physiology and the Department of Entomology offer an area of concentration in agricultural pest management and the Department of Entomology offers an additional area of concentration in urban entomology. The agricultural pest management concentration is an interdisciplinary program of study in weed science, plant pathology, and entomology. Effective management of pest problems in agriculture requires a broad base of knowledge in the pest disciplines and practical field experience. The agricultural pest management concentration features a strong core of courses in the three pest management disciplines; a strong background in agriculture, life and physical sciences; and practical training through an internship work experience. The urban entomology concentration is well suited for students who are interested in urban pest control, mosquito control, public health insect management, and forensic entomology for criminal justice.

In both concentrations, a range of restricted and non-restricted electives allows students to personalize their degree program for employment with agricultural industries such as chemical, seed, or biotechnology companies; state and federal research, extension, and regulatory agencies; private agricultural consulting firms; farmer cooperatives; nurseries, home, and garden centers; golf courses; greenhouse plant production; corporate farms; urban pest control; public health insect management; and forensic entomology. Both concentrations require students to complete an internship providing practical experience in agricultural or urban pest management areas.

# Plant & Soil Systems, B.S. Areas of Concentration Agricultural Pest Management (Entomology Emphasis) **CRITICAL REOUIREMENTS**

Semester 1: ENGL 1001: MATH 1021. Semester 2: CHEM 1201. Semester 3: BIOL 1201: CHEM 1202. Semester 4: AGRO 2051; BIOL 1202. Semester 5: CHEM 2060/CHEM 2261.

#### Semester 1

CRITICAL: ENGL 1001, MATH 1021.

- ENGL 1001 English Composition (3)
- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)
- MATH 1021 College Algebra (3)
- General Education course Social Sciences (3) •
- CHEM 1201 General Chemistry I (3)

# Total Semester Hours: 16

Semester 2

CRITICAL:CHEM 1201.

- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1209 Biology Laboratory for Science • Majors II (1)
- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- EXST 2201 Introduction to Statistical Analysis • (4)
- General Education course Humanities (3)

#### **Total Semester Hours: 16**

Semester 3

CRITICAL: BIOL 1201; CHEM 1202.

- AGRO 2051 Soil Science (4)
- AGEC 2003 Introduction to Agricultural Economics (3) or
- ECON 2030 Economic Principles (3)
- ENTM 2001 Insects in the Environment (3)
- CHEM 2060 Survey of Organic Chemistry (3) or
- CHEM 2261 Organic Chemistry (3)
- BIOL 2153 Principles of Genetics (4) or
- ANSC 2072 Introductory Agricultural Genetics (3)

#### Total Semester Hours: 17-16 Semester 4

CRITICAL: AGRO 2051; BIOL 1202.

- CMST 2060 Public Speaking (3)
- PLHL 3002 Pest Management Seminar (1) or
- ENTM 3002 Pest Management Seminar (1)
- ENGL 2000 English Composition (3)
- Approved Elective  $(2-0)^2$
- See Below (6-8)<sup>1</sup>

#### Total Semester Hours: 15

#### Semester 5

CRITICAL: CHEM 2060/CHEM 2261.

- BIOL 3060 Introductory Plant Physiology (4) or •
- PLHL 3060 Introductory Plant Physiology (4) or •
- HORT 2860 Growth and Development of • Agricultural Crops (3)
- PLHL 3000 Pest Management Internship (3) or
- ENTM 3000 Pest Management Internship (3) •
- PLHL 4000 General Plant Pathology (4) •
- BIOL 4041 Plant Taxonomy (4) or •
- BIOL 4055 Flora of the Central Gulf Coast (4)

#### Total Semester Hours: 13-14

#### Semester 6

- PLHL 4001 Plant Disease Management and • Control (3)
- AGRO 4070 Weed Science and the Environment (3)
- Approved Electives (6)<sup>2</sup>
- General Education course -Humanities (3)

#### **Total Semester Hours: 15**

#### Semester 7

- AGRO 4052 Soil Fertility and Soil Management •
- ENTM 4006 Fundamentals of Applied Entomology (3)
- Approved Electives  $(5)^2$
- General Education course Arts (3)

#### **Total Semester Hours: 15**

#### Semester 8

- AGRO 4071 Weed Biology and Ecology (3) •
- Approved Electives (10)<sup>2</sup>

#### **Total Semester Hours: 13**

#### 120 Total Sem. Hrs.

<sup>1</sup> - Select two from the following: ENTM 4012, ENTM 4018/PLHL 4018, ENTM 3000/PLHL 3000.

<sup>2</sup> - A list of approved electives is available in the Department of Entomology.

### Urban Entomology CRITICAL REQUIREMENTS

Semester 1: ENGL 1001; MATH 1021. Semester 2: CHEM 1201. Semester 3: BIOL 1201; CHEM 1202. Semester 4: AGRO 2051; BIOL 1202. Semester 5: CHEM 2060/CHEM 2261.

#### Semester 1

#### CRITICAL: ENGL 1001, MATH 1021.

- ENGL 1001 English Composition (3)
- BIOL 1201 Biology for Science Majors I (3)
- CHEM 1201 General Chemistry I (3)
- MATH 1021 College Algebra (3)
- General Education course Social Sciences (3)
- Approved Elective (3)<sup>1</sup>

#### Total Semester Hours: 18 Semester 2

CRITICAL: CHEM 1201.

- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)
- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- EXST 2201 Introduction to Statistical Analysis (4)
- General Education course Humanities (3)

#### Total Semester Hours: 16

#### Semester 3

**CRITICAL:** BIOL 1201; CHEM 1202.

- AGRO 2051 Soil Science (4)
- AGEC 2003 Introduction to Agricultural Economics (3) or
- ECON 2030 Economic Principles (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1)
- CHEM 2060 Survey of Organic Chemistry (3) or
- CHEM 2261 Organic Chemistry (3)

• General Education course - Humanities (3) Total Semester Hours: 14

# Semester 4

CRITICAL:AGRO 2051; BIOL 1202.

- CMST 2060 Public Speaking (3)
- ANSC 2072 Introductory Agricultural Genetics (3) or
- BIOL 2153 Principles of Genetics (4)
- ENGL 2000 English Composition (3)
- BIOL 2051 General Microbiology (4)
- Approved Elective (3-2)<sup>1</sup>

#### **Total Semester Hours: 16**

#### Semester 5

#### CRITICAL: CHEM 2060/CHEM 2261.

- BIOL 3060 Introductory Plant Physiology (4) or
- PLHL 3060 Introductory Plant Physiology (4) or
- HORT 2860 Growth and Development of Agricultural Crops (3)
- ENTM 2001 Insects in the Environment (3)
- ENTM 3002 Pest Management Seminar (1) or
- PLHL 3002 Pest Management Seminar (1)
- PLHL 4000 General Plant Pathology (4)
- Approved Electives (4-3)<sup>1</sup>

#### Total Semester Hours: 15 Semester 6

- ENTM 4005 Insect Taxonomy (4)
- ENTM 4006 Fundamentals of Applied Entomology (3)
- ENTM 4012 Fundamentals of Horticultural Entomology (3)
- ENTM 4007 Forensic Entomology (3)
- ENTM 3000 Pest Management Internship (3) or
- PLHL 3000 Pest Management Internship (3)

#### Total Semester Hours: 16

#### Semester 7

- ENTM 4100 Insect Behavior (3)
- ENTM 4018 Forest Insects and Diseases (4)
- AGRO 4070 Weed Science and the Environment (3) or
- AGRO 4071 Weed Biology and Ecology (3)

• General Education course - Arts (3)

Total Semester Hours: 13

Semester 8

• Approved Electives (12)<sup>1</sup>

Total Semester Hours: 12

120 Total Sem. Hrs.

<sup>1</sup> - A list of approved electives is available from the Department of Entomology.

### **Entomology Minor**

To graduate with a *minor in entomology*, students must complete a minimum of 18 hours of coursework in entomology with at least nine hours at or above the 3000 level. Specific requirements include ENTM 2001and ENTM 4005and 11 hours from the following: ENTM 3002, ENTM 4002, ENTM 4006, ENTM 4007, ENTM 4012, ENTM 4018, ENTM 4040, ENTM 4099, ENTM 4100, and ENTM 4199.

# **Department of Experimental Statistics**

OFFICE161 Martin D. Woodin HallTELEPHONE225-578-8303FAX225-578-8344E-MAILhead@stat.lsu.eduWEBSITEwww.stat.lsu.edu

# **CURRICULUM:**

• No undergraduate program is available. See "The Graduate School" section for a description of the graduate program. The Department of Experimental Statistics offers an undergraduate minor in applied statistics. Students take a 12-hour core of statistical methods and theory courses and an additional six hours chosen from a variety of more specialized courses that would best meet individual academic goals. (See the section "Minor Field Requirements" in this chapter for more information.) A minor in applied statistics provides valuable experience in quantitative applications that enhance employment opportunities in a variety of fields as well as preparation for graduate study. Students interested in pursuing a minor in applied statistics are encouraged to declare and contact the department as early in the academic program as possible.

The Master of Applied Statistics offered by this department is designed to acquaint graduate students with the techniques of statistical methods and their application to various fields of specialization. For additional information concerning this program, consult "The Graduate School" section.

#### **Applied Statistics Minor**

To graduate with a minor in applied statistics, students must complete a minimum of 18 hours of coursework consisting of:

- EXST 2201, EXST 3201, EXST 4050; and
- Six hours from EXST 3999, EXST 4012, EXST 4025, and EXST 4087.

# **Department of Plant Pathology & Crop Physiology**

OFFICE302 Life Sciences BuildingTELEPHONE225-578-1464FAX225-578-1415E-MAILplantpath@lsu.eduWEBSITEwww.lsu.edu/ppcp

# **CURRICULUM:**

• Plant and Soil Systems (Agricultural Pest Management Area)

### **Plant & Soil Systems**

The curriculum in plant and soil systems consolidates the curricula in the areas of agronomy, entomology, horticulture, and plant pathology and crop physiology. Students in this curriculum take core courses that provide a basic knowledge required for specialization in one of the nine areas of concentration: agricultural pest management, crop science, environmental horticulture, horticultural sciences, turf and landscape management, soil science, sustainable production systems, and urban entomology. Each area is further individualized by the addition of approved and free electives.

The Department of Plant Pathology & Crop Physiology and the Department of Entomology offer an area of concentration in agricultural pest management and the Department of Entomology offers an additional area of concentration in urban entomology. The agricultural pest management concentration is an interdisciplinary program of study in weed science, plant pathology, and entomology. Effective management of pest problems in agriculture requires a broad base of knowledge in the pest disciplines and practical field experience. The agricultural pest management concentration features a strong core of courses in the three pest management disciplines; a strong background in agriculture, life and physical sciences; and practical training through an internship work experience. The urban entomology concentration is well suited for students who are interested in urban pest control, mosquito control, public health insect management, and forensic entomology for criminal justice.

In both concentrations, a range of restricted and non-restricted electives allows students to personalize their degree program for employment with agricultural industries such as chemical, seed, or biotechnology companies; state and federal research, extension, and regulatory agencies; private agricultural consulting firms; farmer cooperatives; nurseries, home, and garden centers; golf courses; greenhouse plant production; corporate farms; urban pest control; public health insect management; and forensic entomology. Both concentrations require students to complete an internship providing practical experience in agricultural or urban pest management areas.

### Plant & Soil Systems, B.S. Area of Concentration Agricultural Pest Management (Plant Pathology Emphasis) CRITICAL REOUIREMENTS

Semester 1: ENGL 1001; MATH 1021. Semester 2: CHEM 1201. Semester 3: BIOL 1201; CHEM 1202.

Semester 4: AGRO 2051; BIOL 1202. Semester 5: CHEM 2060/CHEM 2261.

#### Semester 1

CRITICAL: ENGL 1001; MATH 1021.

- ENGL 1001 English Composition (3)
- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)
- MATH 1021 College Algebra (3)
- General Education course Social Sciences (3)
- CHEM 1201 General Chemistry I (3)

# Total Semester Hours: 16

Semester 2

CRITICAL:CHEM 1201.

- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1)
- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- EXST 2201 Introduction to Statistical Analysis (4)
- General Education course Humanities (3)

#### **Total Semester Hours: 16**

Semester 3

CRITICAL: BIOL 1201; CHEM 1202.

- AGRO 2051 Soil Science (4)
- AGEC 2003 Introduction to Agricultural Economics (3) or
- ECON 2030 Economic Principles (3)
- ENTM 2001 Insects in the Environment (3)
- CHEM 2060 Survey of Organic Chemistry (3) or
- CHEM 2261 Organic Chemistry (3)
- BIOL 2153 Principles of Genetics (4) or
- ANSC 2072 Introductory Agricultural Genetics (3)

#### Total Semester Hours: 17-16 Semester 4

CRITICAL:AGRO 2051; BIOL 1202.

- CMST 2060 Public Speaking (3)
- PLHL 3002 Pest Management Seminar (1) or
- ENTM 3002 Pest Management Seminar (1)
- ENGL 2000 English Composition (3)
- Approved Elective (2-0)<sup>2</sup>
- See Below (6-8)<sup>1</sup>

Total Semester Hours: 15

#### Semester 5

CRITICAL: CHEM 2060/CHEM 2261.

- BIOL 3060 Introductory Plant Physiology (4) or
- PLHL 3060 Introductory Plant Physiology (4) or
- HORT 2860 Growth and Development of Agricultural Crops (3)
- PLHL 3000 Pest Management Internship (3) or
- ENTM 3000 Pest Management Internship (3)
- PLHL 4000 General Plant Pathology (4)
- BIOL 4041 Plant Taxonomy (4) or
- BIOL 4055 Flora of the Central Gulf Coast (4)

#### Total Semester Hours: 13-14

#### Semester 6

- PLHL 4001 Plant Disease Management and Control (3)
- AGRO 4070 Weed Science and the Environment (3)
- Approved Electives (6) <sup>2</sup>
- General Education course -Humanities (3)

#### Total Semester Hours: 15

#### Semester 7

- AGRO 4052 Soil Fertility and Soil Management (4)
- ENTM 4006 Fundamentals of Applied Entomology (3)
- Approved Electives (5)<sup>2</sup>
- General Education course Arts (3)

#### Total Semester Hours: 15

#### Semester 8

- AGRO 4071 Weed Biology and Ecology (3) Approved Electives (10)<sup>2</sup>
- **Total Semester Hours: 13**

#### 120 Total Sem. Hrs.

<sup>1</sup> - Select two from the following: ENTM 4012, ENTM 4018/PLHL 4018, ENTM 3000/PLHL 3000.

<sup>2</sup> - A list of approved electives is available in the Department of Plant Pathology &Crop Physiology.

# **Department of Textiles, Apparel Design & Merchandising**

OFFICE 125 Human Ecology Building

TELEPHONE 225-578-2281

FAX 225-578-2697

#### CURRICULUM:

• Textiles, Apparel & Merchandising

To prepare students for professional careers in the textile and apparel industries, which are interconnected and global in nature, this curriculum provides an integrated, multi-functional academic experience. Students focus on design, development, and marketing of textile and apparel products and are encouraged to develop a broad-based problem solving perspective through synthesis of concepts, coursework, and work experiences. Students concentrate on a component of the textile/apparel industry complex by selecting textile science, apparel design, or merchandising as a program area. Graduates pursue careers with textile and apparel designers, manufacturers, retailers, testing laboratories, government agencies, media firms, or they may open their own businesses.

# Textiles, Apparel & Merchandising, B.S. Areas of Concentration

Apparel Design CRITICAL REQUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001; MATH 1021. SEMESTER 2: MATH 1022/MATH 1431or EXST 2201. SEMESTER 3: TAM 2040; TAM 2037 SEMESTER 4: ACCT 2000 SEMESTER 5: TAM 3022; ECON 2030

#### Semester 1

**CRITICAL:**"C" or better in ENGL 1001; MATH 1021.

- ENGL 1001 English Composition (3)
- MATH 1021 College Algebra (3)
- General Education course Arts (3)
- General Education course Physical or Life Science (3)
- TAM 1232 Digital Illustration for Apparel Designers (3)

#### Total Semester Hours: 15 Semester 2

**CRITICAL:**MATH 1022/MATH 1431 or EXST 2201.

- CMST 2060 Public Speaking (3)
- MATH 1022 Plane Trigonometry (3) or
- MATH 1431 Calculus with Business and Economic Applications (3) or
- EXST 2201 Introduction to Statistical Analysis (4)
- General Education course Humanities (3)
- TAM 2045 The Fashion Industry (3)
- General Education course Physical or Life Sciences (3)

#### Total Semester Hours: 15-16 Semester 3

#### **CRITICAL:**TAM 2040; TAM 2037

- TAM 2032 Introductory Apparel Design (3)
- TAM 2037 Apparel Structure and Fit (3)
- TAM 2040 Textile Science (3)
- TAM 2041 Textile Science Laboratory (1)
- General Education course Natural Sciences (3)
- Elective (2-1)

Total Semester Hours: 15-14 Semester 4 CRITICAL: ACCT 2000

- ACCT 2000 Survey of Accounting (3)
- ECON 2030 Economic Principles (3)
- ENGL 2000 English Composition (3)
- TAM 2038 Apparel Structure and Fit II 3
- General Education course- Humanities (3)

**Total Semester Hours: 15** 

#### Semester 5

#### CRITICAL: TAM 3022; ECON 2030

- TAM 3022 Apparel Quality Analysis 3
- TAM 3037 Intermediate Apparel Product Design (3)
- TAM 3045 Visual Merchandising and Promotion Strategies (3)
- MGT 3200 Principles of Management (3)
- MKT 3401 Principles of Marketing (3)

#### Total Semester Hours: 15

#### Semester 6

- TAM 3032 Textile and Apparel Product Development (3)
- TAM 3230 Pattern Design with Computer Application (3)
- TAM 3232 Apparel Design Studio (3)
- TAM 3030 Field Study in Textiles, Apparel and Retailing (3) or
- TAM 4041 History of Textiles (3) or
- TAM 4043 Advanced Textiles (3)
- Elective (3)

#### Total Semester Hours: 15 Semester 7

- TAM 4037 Advanced Apparel Product Design (3)
- TAM 4044 Global Textile and Apparel Economics (3)
- General Education Course Social Sciences (3)
- TAM 4072 History of Dress and Adornment After 1800 (3)
- Elective (3)

#### Total Semester Hours: 15 Semester 8

# **CRITICAL: TAM 4047** offered in the summer only (three hours required) or TAM 4070.

- TAM 4034 Textile and Apparel Product Evaluation (3)
- TAM 4045 Synthesis: Textile and Apparel Product Processes (3)

- TAM 4047 Internship in Textiles, Apparel and Merchandising (3 or 6) or
- TAM 4070 Entrepreneurship in Textiles, Apparel & Merchandising (3)
- TAM 4071 History of Dress and Adornment Prior to 1800 (3)
- Elective (3)

Total Semester Hours: 15 120 Total Sem. Hrs.

#### Merchandising CRITICAL REOUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001; MATH 1021. SEMESTER 2: MATH 1022/MATH 1431or EXST 2201. SEMESTER 3: ACCT 2000 SEMESTER 4:ECON 2030. SEMESTER 5: TAM 3022/MKT 3401.

#### Semester 1

**CRITICAL:**"C" or better in ENGL 1001; MATH 1021.

- ENGL 1001 English Composition (3)
- MATH 1021 College Algebra (3)
- General Education course Arts (3)
- General Education course Physical or Life Sciences (3)
- General Education course Social Sciences (3)

#### Total Semester Hours: 15

#### Semester 2

**CRITICAL:**MATH 1022/MATH 1431 or EXST 2201.

- CMST 2060 Public Speaking (3)
- MATH 1022 Plane Trigonometry (3) or
- MATH 1431 Calculus with Business and Economic Applications (3) or
- EXST 2201 Introduction to Statistical Analysis (4)
- TAM 2045 The Fashion Industry (3)
- GeneralEducation course Humanities (3)
- General Education course Physical or Life Sciences (3)

# Total Semester Hours: 15-16 Semester 3

#### CRITICAL: ACCT 2000

- ACCT 2000 Survey of Accounting (3)
- TAM 2042 Fashion: Trends, Analysis and Assortments 3

- TAM 2040 Textile Science (3)
- TAM 2041 Textile Science Laboratory (1)
- Elective (3-2)

#### Total Semester Hours: 13-12 Semester 4

#### CRITICAL:ECON 2030.

- ECON 2030 Economic Principles (3)
- ENGL 2000 English Composition (3)
- GeneralEducation course- Humanities (3)
- Elective (4)
- General Education course Natural Sciences (3)
- **Total Semester Hours: 16**

#### Semester 5

#### **CRITICAL:**TAM 3022/MKT 3401.

- TAM 3022 Apparel Quality Analysis 3
- TAM 3042 Apparel Merchandise Buying and Management (3)
- TAM 3045 Visual Merchandising and Promotion Strategies (3)
- MGT 3200 Principles of Management (3)
- MKT 3401 Principles of Marketing (3)

# Total Semester Hours: 15

### Semester 6

- TAM 3032 Textile and Apparel Product Development (3)
- TAM 3043 Apparel Merchandising Strategies and Assortment Planning (3)
- MKT 4443 International Marketing (3) or
- MC 2035 Digital Brands (3) or
- MC 2040 The Advertising Industry in Society (3)
- TAM 3030 Field Study in Textiles, Apparel and Retailing (3) or
- TAM 4041 History of Textiles (3) or
- TAM 4043 Advanced Textiles (3)
- MGT 3320 Strategic Human Resource Management (3) or
- PSYC 3050 Introduction to Personnel and Industrial Psychology (3)

Total Semester Hours: 15

#### Semester 7

**CRITICAL:** TAM 4047 is only offered in the summer.

• TAM 4044 Global Textile and Apparel Economics (3)

- TAM 4046 Advanced Topics in Apparel Merchandising (3)
- TAM 4047 Internship in Textiles, Apparel and Merchandising (3 or 6) or
- Approved coursework (6)
- TAM 4072 History of Dress and Adornment After 1800 (3)

#### **Total Semester Hours: 15**

#### Semester 8

- TAM 4034 Textile and Apparel Product Evaluation (3)
- TAM 4070 Entrepreneurship in Textiles, Apparel & Merchandising (3)
- TAM 4071 History of Dress and Adornment Prior to 1800 (3)
- Electives (7)

Total Semester Hours: 16

120 Total Sem. Hrs.

### Textile Science CRITICAL REOUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001; MATH 1021. SEMESTER 2: MATH 1022. SEMESTER 3: TAM 2040. SEMESTER 4: MATH 1550 SEMESTER 5: ACCT 2000;TAM 3022.

#### Semester 1

**CRITICAL:** "C" or better in ENGL 1001; MATH 1021.

- ENGL 1001 English Composition (3)
- MATH 1021 College Algebra (3)
- CHEM 1201 General Chemistry I (3)
- General Education course Arts (3)
- General Education course Social Sciences (3)

#### Total Semester Hours: 15

# Semester 2

#### CRITICAL: MATH 1022

- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- EXST 2201 Introduction to Statistical Analysis (4)
- MATH 1022 Plane Trigonometry (3)
- TAM 2045 The Fashion Industry (3)

#### Total Semester Hours: 15

#### Semester 3

CRITICAL:TAM 2040.

- CHEM 2261 Organic Chemistry (3)
- TAM 2040 Textile Science (3)
- TAM 2041 Textile Science Laboratory (1)
- MATH 1550 Analytic Geometry and Calculus I (5)
- General Education course Humanities (3)

#### Total Semester Hours: 15

#### Semester 4

#### CRITICAL:MATH 1550

- CHEM 2001 Analytical Chemistry (3)
- ECON 2030 Economic Principles (3)
- ENGL 2000 English Composition (3)
- MATH 1552 Analytic Geometry and Calculus II (4)
- Elective (4)

#### Total Semester Hours: 17

#### Semester 5

#### CRITICAL:ACCT 2000;TAM 3022.

- ACCT 2000 Survey of Accounting (3)
- TAM 3022 Apparel Quality Analysis 3
- CHEM 2002 Analytical Chemistry Laboratory (1)
- TAM 4043 Advanced Textiles (3)
- TAM 3045 Visual Merchandising and Promotion Strategies (3)
- MGT 3200 Principles of Management (3)

#### **Total Semester Hours: 16**

#### Semester 6

- TAM 3032 Textile and Apparel Product Development (3)
- CMST 2060 Public Speaking (3)
- MKT 3401 Principles of Marketing (3)
- PHYS 2001 General Physics I (3)

#### **Total Semester Hours: 12**

#### Semester 7

**CRITICAL: TAM 4047 is only offered in the summer.** 

- TAM 4044 Global Textile and Apparel Economics (3)
- TAM 4047 Internship in Textiles, Apparel and Merchandising (3 or 6)
- TAM 4072 History of Dress and Adornment After 1800 (3)
- GeneralEducation course Natural Sciences (3)
- Elective (3)

#### Total Semester Hours: 15 Semester 8

- TAM 4034 Textile and Apparel Product Evaluation (3)
- TAM 4071 History of Dress and Adornment Prior to 1800 (3)
- GeneralEducation course Humanities (3)

• Electives (6)

Total Semester Hours: 15 120 Total Sem. Hrs.

# **Textiles, Merchandising & Apparel Minor**

This minor is not available to students majoring in textiles, apparel, and merchandising.

To graduate with a *minor in textiles, merchandising, and apparel*, students must complete 13 hours consisting of TAM 2040, TAM 2041, TAM 2045, TAM 3022, TAM 3032; and six additional hours chosen from TAM 3030, TAM 4041, TAM 4043, TAM 4044, TAM 4070, TAM 4071, or TAM 4072. Students must comply with all prerequisites and must have a 2.0 GPA in the courses used to satisfy the minor.

# **School of Animal Sciences**

OFFICE 201 Animal and Food Sciences Laboratories Building

TELEPHONE 225-578-3241

FAX 225-578-3279

# **CURRICULUM:**

#### Animal Sciences

The School of Animal Sciences offers concentrations in animal production and animal products processing that provide individuals with a broad educational background tailored to meet their needs and aptitudes. The Animal Production concentration is a 4 year degree program that includes all aspects of live animal production and management, including livestock, horses, and companion animals. The Animal Products Processing concentration focuses on processing technology, quality assurance, and food safety for animal products intended for human consumption. These concentrations provide graduates with employment opportunities in all phases of animal production, processing, distribution, marketing, research and teaching.

Concentrations in science and technology and pre-veterinary medicine also are provided for students interested in subsequent training at the graduate level or in veterinary medicine. The Pre-Veterinary Medicine concentration is a 3 year program designed for academically competitive students to enter the LSU School of Veterinary Medicine (SVM) after three years of specified undergraduate coursework. Eligible students apply to the LSU SVM during the junior year, and if accepted, the first year of veterinary medicine courses complete the requirements for the Bachelor's Degree. Students who wish to pursue a 4 year degree prior to applying to vet school, or students who are not accepted to vet school after the junior year are advised to enter the concentration in Science and Technology.

#### **Animal Sciences**

Students follow a selected area of concentration depending on their area of interest and future career goals. Within each area of concentration, students select approved and free electives. Students interested in choosing an approved minor can take the suggested courses for the minor as part of their electives. See the listing ofCollege of Agriculture minorsfor details.

Prior to entering the program, students are encouraged to consult a counselor for guidance in scheduling courses. Those students interested in entering the School of Veterinary Medicine must take ENGL 1001and ENGL 2000; BIOL 1201and BIOL 1208, BIOL 1202and BIOL 1209, BIOL 2051, BIOL 2083or BIOL 4087; CHEM 1201, CHEM 1202, and CHEM 1212; CHEM 2060or CHEM 2261, MATH 1021and MATH 1022or MATH 1023or MATH 1550; PHYS 2001and PHYS 2002; and CMST 1061, CMST 2010, or CMST 2060to meet admission requirements.

Graduates of the animal sciences curriculum find career opportunities in a variety of production enterprises and animal-related agribusinesses, such as commercial livestock, dairy, and poultry enterprises; feed, pharmaceutical, and supply companies; commodity processing and food product industries; and various state and federal agencies including the cooperative extension service. Students selecting the science-directed electives are prepared to enter graduate school or professional school.

#### Animal Sciences, B.S.

Students entering the School of Veterinary Medicine after completion of the first three years of the animal, dairy and poultry sciences curriculum (90 hours) may receive the BS degree following successful completion of the first year of the professional curriculum in veterinary medicine. (See the School of Veterinary Medicine Bulletin for details of the first years of the professional curriculum.) Students pursuing this program will be required to establish residence in the College of Agriculture for 30 semester hours prior to entering the School of Veterinary Medicine. They also must make application for the degree through the dean's office in the College of Agriculture no later than 15 days after classes begin in the semester in which the degree is to be awarded.

# Areas of Concentration Animal Production CRITICAL REQUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001; MATH 1021. SEMESTER 2: ANSC 1011;MATH 1022/MATH 1550. SEMESTER 3: BIOL 1201; CHEM 1201. SEMESTER 4: CHEM 1202. SEMESTER 5: BIOL 1202.

#### Semester 1

**CRITICAL:** "C" or better in ENGL 1001; MATH 1021.

- ANSC 1011 Introduction to Animal Science (3)
- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)
- ENGL 1001 English Composition (3)
- MATH 1021 College Algebra (3)
- General Education course Arts (3)

#### Total Semester Hours: 16

#### Semester 2

**CRITICAL:**ANSC 1011/MATH 1022/MATH 1550.

- ANSC 2050 Animal Management Practices (2)
- ANSC 2052 Small Farm Animals Practicum Laboratory (1)
- CHEM 1201 General Chemistry I (3)
- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1)
- MATH 1022 Plane Trigonometry (3) or

- MATH 1550 Analytic Geometry and Calculus I (5)
- Elective (3)

### Total Semester Hours: 16-18

#### Semester 3

CRITICAL: BIOL 1001; CHEM 1201.

- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- EXST 2201 Introduction to Statistical Analysis (4)
- ANSC 2040 Techniques of Judging and Evaluating Dairy Cattle (2) or
- ANSC 2042 Techniques of Judging and Evaluating Poultry and Poultry Products (2) or
- ANSC 2033 Live Animal and Carcass Evaluation (2)
- ANSC 2051 Large Farm Animal Practicum Laboratory (1)
- General Education course Humanities (3)

#### Total Semester Hours: 15

#### Semester 4

CRITICAL:CHEM 1202.

- AGEC 2003 Introduction to Agricultural Economics (3) or
- ECON 2030 Economic Principles (3)
- ANSC 2053 Foods of Animal Origin (3)
- CHEM 2060 Survey of Organic Chemistry (3) or
- CHEM 2261 Organic Chemistry (3)
- ENGL 2000 English Composition (3)
- ANSC 2072 Introductory Agricultural Genetics (3) or
- BIOL 2153 Principles of Genetics (4)

#### Total Semester Hours: 15-16 Semester 5

CRITICAL:BIOL 1202.

- ANSC 3053 Meats (3) or
- ANSC 2075 Milk and Dairy Foods (3)
- ANSC 2060 Companion Animal Management (3)
- General Education course Humanities (3)
- General Education course Social Sciences (3)
- Electives (3)

### Total Semester Hours: 15 Semester 6

- ANSC 3133 Growth and Development of Livestock (3)
- CMST 1061 Fundamentals of Communication (3) or
- CMST 2060 Public Speaking (3)
- ANSC 3010 Applied Animal Feed Formulation (3)
- BIOL 2051 General Microbiology (4)
- Total Semester Hours: 13

### Semester 7

- ANSC 4009 Animal Nutrition (3)
- ANSC 4018 Principles of Animal Genetics (3)
- ANSC 4045 Reproductive Physiology of Farm Animals (3)
- ANSC 4043 Domestic Animal Endocrinology (3)
- Electives (4-1)

#### Total Semester Hours: 16-13 Semester 8

- ANSC 4092 Animal Science Proseminar (1)
- ANSC Production Courses (6)<sup>1</sup>
- Electives (7)

#### **Total Semester Hours: 14**

#### 120 Total Sem. Hrs.

<sup>1</sup>- Select fromANSC 4031,ANSC 4052,ANSC 4054,ANSC 4081,ANSC 4084,ANSC 4086,ANSC 4088

# Animal Products Processing CRITICAL REQUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001;MATH 1021.

SEMESTER 2:ANSC 1011;MATH 1022/MATH 1550.

SEMESTER 3:BIOL 1201; CHEM 1201.

#### SEMESTER 4:CHEM 1202

SEMESTER 5:BIOL 1202

#### Semester 1

CRITICAL:ENGL 1001; MATH 1021.

- ANSC 1011 Introduction to Animal Science (3)
- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)
- ENGL 1001 English Composition (3)
- MATH 1021 College Algebra (3)

• General Education course - Arts (3)

# Total Semester Hours: 16

#### Semester 2

**CRITICAL:** ANSC 1011; MATH 1022/MATH 1550.

- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1)
- CHEM 1201 General Chemistry I (3)
- ANSC 2050 Animal Management Practices (2)
- ANSC 2052 Small Farm Animals Practicum Laboratory (1)<sup>1</sup> or
- ANSC 2051 Large Farm Animal Practicum Laboratory (1)<sup>1</sup>
- MATH 1022 Plane Trigonometry (3) or
- MATH 1550 Analytic Geometry and Calculus I (5)
- Elective (2-0)

### Total Semester Hours: 15 Semester 3

CRITICAL:BIOL 1201; CHEM 1201.

- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- EXST 2201 Introduction to Statistical Analysis (4)
- General Education course Humanities (3)
- ANSC 2093 Dairy Products Judging (2) or
- ANSC 2042 Techniques of Judging and Evaluating Poultry and Poultry Products (2) or
- ANSC 2033 Live Animal and Carcass Evaluation (2)

#### Total Semester Hours: 14 Semester 4

CRITICAL: CHEM 1202.

- AGEC 2003 Introduction to Agricultural Economics (3) or
- ECON 2030 Economic Principles (3)
- ANSC 2053 Foods of Animal Origin (3)
- Elective (1-0)
- CHEM 2060 Survey of Organic Chemistry (3) or
- CHEM 2261 Organic Chemistry (3)
- NFS 2000 Fundamentals of Food Science (3)

- ANSC 2072 Introductory Agricultural Genetics (3) or
- BIOL 2153 Principles of Genetics (4)

Total Semester Hours: 16

#### Semester 5

CRITICAL:BIOL 1202.

- ENGL 2000 English Composition (3)
- ANSC 3053 Meats (3) or
- ANSC 2075 Milk and Dairy Foods (3)
- ANSC 2085 Milk Quality Control Laboratory (2)
- NFS 3000 Food Safety (3)
- Elective (3)

#### Total Semester Hours: 14 Semester 6

- ANSC 3133 Growth and Development of Livestock (3)
- CMST 1061 Fundamentals of Communication (3) or
- CMST 2060 Public Speaking (3)
- ANSC 3010 Applied Animal Feed Formulation
   (3)
- BIOL 2051 General Microbiology (4)
- Electives (2)

#### Total Semester Hours: 15 Semester 7

- ANSC 4009 Animal Nutrition (3)
- ANSC 4020 Dairy Foods Technology: Frozen and Cultured Dairy Products (3)
- General Education course Humanities (3)
- General Education course Social Sciences (3)
- Elective (4-3)

#### Total Semester Hours: 16-15 Semester 8

- ANSC 4040 Quality Assurance in the Food Industry (4)
- ANSC 4080 Dairy Microbiology (3) or
- NFS 4162 Food Microbiology (4)
- ANSC 4092 Animal Science Proseminar (1)
- ANSC Production Courses (6)<sup>2</sup>

#### Total Semester Hours: 14-15

#### 120 Total Sem. Hrs.

<sup>1</sup>-ANSC 2051is offered in fall semesters.ANSC 2052is offered in spring semesters.

<sup>2</sup>- Select fromANSC 4031,ANSC 4052,ANSC 4054,ANSC 4081,ANSC 4084,ANSC 4086,ANSC 4088

# Preveterinary Medicine - Animal CRITICAL REQUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001;MATH 1021. SEMESTER 2: ANSC 1011;MATH 1022/MATH 1550. SEMESTER 3: BIOL 1201; CHEM 1201. SEMESTER 4: CHEM 1202. SEMESTER 5: BIOL 1202; 3.0 GPA.

After completion of the 90 hours of undergraduate coursework, earning this degree requires admission to the School of Veterinary Medicine at Louisiana State University and completion of the first year. Upon completion of the first year, the student is awarded the Bachelor of Science degree in Animal Sciences through the College of Agriculture.

#### Semester 1

**CRITICAL:**"C" or better in ENGL 1001,MATH 1021.

- ENGL 1001 English Composition (3)
- ANSC 1011 Introduction to Animal Science (3)
- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)
- MATH 1021 College Algebra (3)
- General Education course Arts (3)

#### Total Semester Hours: 16

#### Semester 2

**CRITICAL:** ANSC 1011; MATH 1022/MATH 1550.

- ANSC 2050 Animal Management Practices (2)
- ANSC 2052 Small Farm Animals Practicum Laboratory (1) (if not takingANSC 2051)
- CHEM 1201 General Chemistry I (3)
- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1)
- MATH 1022 Plane Trigonometry (3) or
- MATH 1550 Analytic Geometry and Calculus I (5)
- General Education course Humanities (3)

Total Semester Hours: 15-18

#### Semester 3

#### **CRITICAL:** BIOL 1201; CHEM 1201.

• CHEM 1202 General Chemistry (3)

- CHEM 1212 General Chemistry Laboratory (2)
- EXST 2201 Introduction to Statistical Analysis (4)
- General Education course Humanities (3)
- ANSC 2060 Companion Animal Management (3)
- ANSC 2051 Large Farm Animal Practicum Laboratory (1) (if not takingANSC 2052)

#### Total Semester Hours: 16-15 Semester 4

#### CRITICAL:CHEM 1202.

- AGEC 2003 Introduction to Agricultural Economics (3) or
- ECON 2030 Economic Principles (3)
- ANSC 2053 Foods of Animal Origin (3)
- CHEM 2060 Survey of Organic Chemistry (3) or
- CHEM 2261 Organic Chemistry (3)
- ENGL 2000 English Composition (3)
- ANSC 2072 Introductory Agricultural Genetics (3) or
- BIOL 2153 Principles of Genetics (4)

#### Total Semester Hours: 15-16

#### Semester 5

CRITICAL:BIOL 1202; GPA of 3.0

- BIOL 2051 General Microbiology (4)
- PHYS 2001 General Physics I (3)
- ANSC Elective(3)<sup>1</sup>
- General Education course Social Sciences (3)

#### Total Semester Hours: 13

Semester 6

AFTER SIXTH SEMESTER, TRANSFER TO FOUR YEAR CURRICULUM IF NOT ADMITTED INTO THE VET SCHOOL OR FIRST YEAR VET SCHOOL IF ADMITTED (44 HOURS).

- PHYS 2002 General Physics II (3)
- BIOL 2083 The Elements of Biochemistry (3)
- CMST 1061 Fundamentals of Communication (3) or
- CMST 2060 Public Speaking (3)
- Elective (3-0)
- ANSC Elective (3)<sup>1</sup>

Total Semester Hours: 15-12

134 Total Sem. Hrs.

<sup>1</sup>- Select from ANSC 3000 and above; only 3 hours fromANSC 4031,ANSC 4052,ANSC 4054,ANSC 4081,ANSC 4084,ANSC 4086,ANSC 4088may be used for animal science elective credit.

# Science & Technology - Animal CRITICAL REQUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001; MATH 1021. SEMESTER 2:ANSC 1011;MATH 1022/MATH 1550. SEMESTER 3: BIOL 1201; CHEM 1201. SEMESTER 4: CHEM 1202 SEMESTER 5: BIOL 1202.

#### Semester 1

**CRITICAL:**"C" or better in ENGL 1001; MATH 1021.

- ANSC 1011 Introduction to Animal Science (3)
- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)
- ENGL 1001 English Composition (3)
- MATH 1021 College Algebra (3)
- GeneralEducation course Arts (3)

#### Total Semester Hours: 16

#### Semester 2

**CRITICAL:**ANSC 1011;MATH 1022/MATH 1550.

- ANSC 2050 Animal Management Practices (2)
- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1)
- CHEM 1201 General Chemistry I (3)
- MATH 1022 Plane Trigonometry (3) or
- MATH 1550 Analytic Geometry and Calculus I (5)
- Elective (4-2)

### Total Semester Hours: 16 Semester 3

CRITICAL: BIOL 1201; CHEM 1201.

- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- EXST 2201 Introduction to Statistical Analysis (4)
- General Education course Humanities (3)
- ANSC 2040 Techniques of Judging and Evaluating Dairy Cattle (2) or

- ANSC 2042 Techniques of Judging and Evaluating Poultry and Poultry Products (2) or
- ANSC 2033 Live Animal and Carcass Evaluation (2)
- ANSC 2051 Large Farm Animal Practicum Laboratory (1) or <sup>1</sup>
- ANSC 2052 Small Farm Animals Practicum Laboratory (1)<sup>1</sup>

#### Total Semester Hours: 15 Semester 4

CRITICAL: CHEM 1202

- AGEC 2003 Introduction to Agricultural Economics (3) or
- ECON 2030 Economic Principles (3)
- ANSC 2053 Foods of Animal Origin (3)
- CHEM 2060 Survey of Organic Chemistry (3) or
- CHEM 2261 Organic Chemistry (3)
- ENGL 2000 English Composition (3)
- ANSC 2072 Introductory Agricultural Genetics (3) or
- BIOL 2153 Principles of Genetics (4)

Total Semester Hours: 15-16 Semester 5

CRITICAL: BIOL 1202.

- BIOL 2051 General Microbiology (4)
- ANSC 2060 Companion Animal Management (3)
- Science Elective (3)<sup>3</sup>
- General Education course Social Sciences (3)
- Elective (3)

Total Semester Hours: 16 Semester 6

- ANSC 3133 Growth and Development of Livestock (3)
- CMST 1061 Fundamentals of Communication (3) or
- CMST 2060 Public Speaking (3)
- ANSC 3010 Applied Animal Feed Formulation (3)
- BIOL 2083 The Elements of Biochemistry (3)
- Science Elective (3)<sup>3</sup>

#### Total Semester Hours: 15 Semester 7

- ANSC 4009 Animal Nutrition (3)
- ANSC 4045 Reproductive Physiology of Farm Animals (3)
- ANSC 4043 Domestic Animal Endocrinology (3)
- Elective (2-1)
- General Education course Humanities (3)
- Total Semester Hours: 14-13

#### Semester 8

- ANSC 4092 Animal Science Proseminar (1)
- ANSCProduction Courses(6)<sup>2</sup>
- Elective (3)
- Science Elective (3)<sup>3</sup>

#### Total Semester Hours: 13 120 Total Sem. Hrs.

<sup>1</sup> - ANSC 2051 is offered in fall semesters. ANSC 2052 is offered in spring semesters.

<sup>2</sup> - Select from BIOL 2+++, CHEM 2+++, PHYS 2+++, orANSC 3060,ANSC 3070,ANSC 4001,ANSC 4005,ANSC 4018,ANSC 4050

<sup>3</sup> - Select fromANSC 4031,ANSC 4052,ANSC 4054,ANSC 4081,ANSC 4084,ANSC 4086,ANSC 4088

# Animal, Dairy, and Poultry Sciences Minor

To graduate with a *minor in animal, dairy, and poultry sciences*, students must complete a minimum of 18 hours of coursework in animal, dairy, or poultry sciences with at least nine hours at the 4000 level and maintain a 2.00 average on all work taken. Students majoring in animal, dairy, and poultry sciences may not also minor in this curriculum.

# **School of Nutrition & Food Sciences**

OFFICE 297 Knapp Hall TELEPHONE 225-578-5207

FAX 225-578-5300

# **CURRICULUM:**

• Nutrition and Food Sciences

The School of Nutrition and Food Sciences offers undergraduate and graduate programs to prepare students for professional careers in specialty areas. The undergraduate curriculum in Nutrition and Food Sciences consolidates the curricula in the areas of Nutritional Sciences and Food Science and Technology. Students in this curriculum take core courses that provide basic knowledge required for specialization in one of four areas of concentration: Dietetics; Nutritional Sciences/Pre-Medical; Nutrition, Health and Society; and Food Science and Technology (with a Pre-Medical option). Each concentration provides the student with a professional sequence in an area of specialization, the necessary supporting courses in basic sciences and a broad general education. Students who enter this major should give special attention to the mathematics and science courses they select and should consult with an advisor when registering for these courses. Students are expected to be ready for the required courses in mathematics, chemistry, and biological sciences when they enter the program. Graduates are prepared to pursue professional careers in dietetics, medicine, public health, cooperative extension service, business, education, research, or all aspects of the food industry.

The concentrations in Dietetics, Nutritional Sciences/Pre-Medical, and Nutrition, Health, and Society in the Nutrition and Food Sciences Curriculum prepare students for careers in the health professions specifically in dietetics, medicine, dentistry, or related fields. The Dietetics concentration is currently accredited as a Didactic Program in Dietetics (DPD) by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) of the Academy of Nutrition and Dietetics, a specialized accrediting body recognized by the U.S. Department of Education. Students successfully completing this program will receive a verification statement that allows them to apply for an ACEND accredited dietetic internship. This internship is required before students are eligible to sit for the registry examination to become a registered dietitian (RD). Registered dietitians provide expertise in nutrition and food service management in a variety of settings, including public and private schools, universities, hospitals, clinics, care centers, the armed services, research laboratories, commercial and industrial establishments, and local, state and federal health programs. Students who successfully complete the knowledge requirements of the dietetics concentration, as outlined by ACEND, but do not enter and complete a dietetic internship are qualified to sit the examination to become a dietetic technician, registered (DTR). Information about both the RD and DTR programs are available through the Commission on Dietetic Registration. The Nutritional Sciences/Pre-Medical concentration provides students with a strong grounding in nutritional sciences while meeting the coursework requirements for students planning to apply to medical, dental or graduate school. Since nutrition plays a role in developing or treating many chronic and acute disease processes, understanding the role of nutrients in the body provides premedical students with a strong basis for building their medical careers. The concentration in Nutrition, Health, and Society prepares students for a variety of careers in nutrition, including, but not limited to nutrition education, the food industry or scientific writing. Neither the Nutritional Sciences/Pre-Medical concentration nor the concentration in Nutrition, Health, and Society prepares students to enter a dietetic internship with the ultimate goal of sitting the exam to become an RD or to sit the examination to become a DTR or to obtain other professional credentials in dietetics. Elective courses in all three concentrations allow students to gain practical experience in research. An undergraduate practicum is also available for students in the Dietetics concentration.

Students in the Food Science and Technology concentration take courses in food chemistry, analysis, microbiology, engineering and business to learn the techniques and basic information about research, development, processing, evaluation, packaging, and distribution of foods. The primary food properties of safety, taste, acceptability, quality, and nutrition are studied extensively. Opportunities are also available to interact with culinary programs in the preparation and presentation of food. Elective courses allow students to gain practical experience in research or product development. Internships with many various food companies are also available.

Students in the Food Science and Technology concentration can take electives related to food safety and applied microbiology which will enhance students' knowledge in the critical area of quality control and government regulation of food manufacturing. Students may also take electives related to food processing and technology which provide students background knowledge in product development, processing plant supervision, food engineering principles, and quality parameters of foods. In addition, students may take electives related to food chemistry and analysis which prepare students for careers in food quality assurance and technical services. Electives related to food business and marketing are also available and lead to knowledge or careers in management, technical sales, or marketing.

There is a strong relationship between food science, nutrition and the health field in prevention of disease, slowing aging and finding solutions to problems like inflammation, cancer, and obesity such as development of nutritional or medical foods. Students aspiring to go to medical school can take the Pre-Medical option which allows students to take core courses required for consideration for admission to medical school.

Food science has been ranked as one of the most enjoyable careers available to college graduates. Food science and technology encompasses everything in regards to food. Food scientists interface with the production practices and harvesting of raw food materials, processing of food, and marketing and merchandising of food while having main interests in providing safe, wholesome, healthy, and high quality food to customers. The Food Science and Technology concentration in the Nutrition and Food Sciences curriculum follows the Institute of Food Technologists national guidelines to provide a strong basic foundation for the study of post-production properties and processing of food products. For students taking the Food Science and Technology area of concentration, there are several job areas available in the food industry related to food quality and safety, applied microbiology, food engineering, processing and technology, food chemistry and analysis, food business and marketing research, and product development. Students are also prepared to pursue graduate study or pursue professional programs such as medical, dental and pharmacy school.

# **Requirements for Graduation**

In addition to the graduation requirements outlined by the College of Agriculture, students in the Dietetics concentration of the Nutrition and Food Sciences curriculum must earn a grade of "C" or better in all required NFS courses, as well as in BIOL 2160and BIOL 2083.

# Nutrition & Food Sciences, B.S. Areas of Concentration

Dietetics

# **CRITICAL REQUIREMENTS**

Semester 1: "C" or better in ENGL 1001. Semester 2: NFS 1110; CHEM 1201. Semester 3: NFS 1014. Semester 4: CHEM 2060, NFS 2000. Semester 5: BIOL 2083.

### Semester 1

CRITICAL: "C" or better in ENGL 1001

- ENGL 1001 English Composition (3)
- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)
- MATH 1023 College Algebra and Trigonometry (5)
- CHEM 1201 General Chemistry I (3)
- Total Semester Hours: 15

Semester 2

CRITICAL: NFS 1110; CHEM 1201.

- NFS 1014 Food Theory and Skills (4)
- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- NFS 1110 Introduction to Nutritional Sciences (3)
- PSYC 2000 Introduction to Psychology (3)

#### **Total Semester Hours: 15**

#### Semester 3

CRITICAL: NFS 1014.

- BIOL 1011 Microorganisms and Man (3)
- BIOL 1012 Microorganisms and Man Laboratory (1)
- CHEM 2060 Survey of Organic Chemistry (3)
- NFS 2112 Human Lifecycle Nutrition (3)
- ANTH 1003 Introduction to Cultural and Social Anthropology (3) or
- SOCL 2001 Introductory Sociology (3)
- KIN 2500 Human Anatomy (3)

#### **Total Semester Hours: 16**

#### Semester 4

CRITICAL:CHEM 2060, NFS 2000.

• ENGL 2000 English Composition (3)

- EXST 2201 Introduction to Statistical Analysis (4)
- NFS 2000 Fundamentals of Food Science (3)
- BIOL 2160 Human Physiology (3)
- NFS 2110 Methods of Nutritional Assessment (3)

#### Total Semester Hours: 16

#### Semester 5

CRITICAL: BIOL 2083.

- BIOL 2083 The Elements of Biochemistry (3)
- NFS 3000 Food Safety (3)
- NFS 3110 Nutrition Counseling and Education (3)
- NFS 3119 Fundamentals of Quantity Food Production (4)

# Total Semester Hours: 13

# Semester 6

- CMST 2060 Public Speaking (3)
- NFS 3114 Food and Culture (3)
- NFS 3115 Human Nutrition and Metabolism (3)
- NFS 3116 Community Nutrition (3)
- NFS 3025 Professionalism in Dietetics (3)

#### Total Semester Hours: 15

#### Semester 7

- NFS 4111 Nutrition and Disease I (4)
- NFS 4021 Contemporary Topics in Nutrition (1)
- MGT 3200 Principles of Management (3)
- General Education course Arts (3)
- Elective (3)

#### Total Semester Hours: 14

#### Semester 8

- NFS 4023 Management in Dietetics (3)
- NFS 4110 Capstone in Nutritional Sciences (3)
- NFS 4114 Nutrition and Disease II (4)
- General Education course Humanities (6)<sup>1</sup>

#### Total Semester Hours: 16

#### 120 Total Sem. Hrs.

<sup>1</sup> - General Education Humanities: three hours chosen from a 2000-level English course on the General Education list and three hours chosen from any course on the General Education Humanities list.

# Food Science and Technology CRITICAL REQUIREMENTS

Semester 1: "C" or better in ENGL 1001. Semester 2: CHEM 1201. Semester 3: BIOL 1201. Semester 4: MATH 1550; NFS 2000. Semester 5: CHEM 1202; ENGL 2000.

#### Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)
- MATH 1550 Analytic Geometry and Calculus I (5)
- CHEM 1201 General Chemistry I (3)

#### Total Semester Hours: 15 Semester 2

CRITICAL:CHEM 1201.

- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1)
- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- NFS 1110 Introduction to Nutritional Sciences (3)
- Elective (3)

#### Total Semester Hours: 15

#### Semester 3

CRITICAL:BIOL 1201.

- BIOL 2051 General Microbiology (4)
- CHEM 2060 Survey of Organic Chemistry (3)
- NFS 2112 Human Lifecycle Nutrition (3)
- AGEC 2003 Introduction to Agricultural Economics (3) or
- ECON 2030 Economic Principles (3)
- Elective (3)

#### Total Semester Hours: 16 Semester 4

CRITICAL: MATH 1550; NFS 2000.

- ENGL 2000 English Composition (3)
- EXST 2201 Introduction to Statistical Analysis (4)
- NFS 2000 Fundamentals of Food Science (3)
- Electives (6)

Total Semester Hours: 16

#### Semester 5

CRITICAL:CHEM 1202; ENGL 2000.

- BIOL 2083 The Elements of Biochemistry (3)
- NFS 3000 Food Safety (3)

- NFS 4070 Food Laws, Standards and Regulations (2)
- NFS 4095 Principles of Sensory Evaluation of Foods (4)
- PHYS 2001 General Physics I (3)
- Total Semester Hours: 15

#### Semester 6

- CMST 2060 Public Speaking (3)
- NFS 4005 Food Engineering Systems (3)
- NFS 4162 Food Microbiology (4)
- General Education course Social Sciences (3)
- Elective (2)

#### Total Semester Hours: 15

#### Semester 7

- NFS 3999 Food Science and Technology Seminar (1)
- NFS 4060 Food Chemistry (4)
- NFS 4075 Food Preservation (3)
- General Education course Arts (3)
- General Education course Humanities (3)
- Total Semester Hours: 14

#### Semester 8

- NFS 4040 Quality Assurance in the Food Industry (4)
- NFS 4050 Food Composition and Analysis (4)
- NFS 4076 Food Product Development (3)
- General Education course Humanities (3)

#### **Total Semester Hours: 14**

#### 120 Total Sem. Hrs.

The Food Science and Technology concentration offers pre-med and non-pre-med options. Students choosing the non-pre-med option should take 14 hours of general electives.

# Food Science and Technology (with Pre-Medical option) CRITICAL REOUIREMENTS

Semester 1: "C" or better in ENGL 1001. Semester 2: CHEM 1201. Semester 3: BIOL 1201. Semester 4: MATH 1550; NFS 2000. Semester 5: CHEM 1202; ENGL 2000.

#### Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)

- MATH 1550 Analytic Geometry and Calculus I (5)
- CHEM 1201 General Chemistry I (3)

Total Semester Hours: 15

#### Semester 2

CRITICAL:CHEM 1201.

- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1)
- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- NFS 1110 Introduction to Nutritional Sciences (3)
- Elective (3)

# Total Semester Hours: 15

#### Semester 3

#### CRITICAL:BIOL 1201.

- BIOL 2051 General Microbiology (4)
- CHEM 2261 Organic Chemistry (3)
- CHEM 2262 Organic Chemistry (3)
- AGEC 2003 Introduction to Agricultural Economics (3) or
- ECON 2030 Economic Principles (3)

• NFS 2112 Human Lifecycle Nutrition (3) Total Semester Hours: 16 Semester 4 CRITICAL: MATH 1550; NFS 2000.

- ENGL 2000 English Composition (3)
- EXST 2201 Introduction to Statistical Analysis (4)
- NFS 2000 Fundamentals of Food Science (3)
- CHEM 2364 Organic Chemistry Laboratory (2)
- PHYS 2001 General Physics I (3)
- PHYS 2108 Introductory Physics Laboratory (1)

#### Total Semester Hours: 16

#### Semester 5

CRITICAL:CHEM 1202; ENGL 2000.

- NFS 3000 Food Safety (3)
- NFS 4070 Food Laws, Standards and Regulations (2)
- NFS 4095 Principles of Sensory Evaluation of Foods (4)
- PHYS 2002 General Physics II (3)
- PHYS 2109 General Physics Laboratory (1)
- BIOL 4087 Basic Biochemistry (4)

### Total Semester Hours: 17 Semester 6

- CMST 2060 Public Speaking (3)
- NFS 4005 Food Engineering Systems (3)
- NFS 4162 Food Microbiology (4)
- General Education course Social Sciences (3)

#### Total Semester Hours: 13

#### Semester 7

- NFS 3999 Food Science and Technology Seminar (1)
- NFS 4060 Food Chemistry (4)
- NFS 4075 Food Preservation (3)
- General Education course Arts (3)
- General Education course Humanities (3)

#### Total Semester Hours: 14

#### Semester 8

- NFS 4040 Quality Assurance in the Food Industry (4)
- NFS 4050 Food Composition and Analysis (4)
- NFS 4076 Food Product Development (3)
- General Education course Humanities (3)

#### Total Semester Hours: 14

### 120 Total Sem. Hrs.

# Nutrition, Health & Society CRITICAL REQUIREMENTS

Semester 1: "C" or better in ENGL 1001. Semester 2: CHEM 1201. Semester 3: NFS 1014, NFS 1110. Semester 4: BIOL 1011. Semester 5: ENGL 2000.

#### Semester 1

**CRITICAL:**"C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)
- MATH 1023 College Algebra and Trigonometry (5)
- CHEM 1201 General Chemistry I (3)

# Total Semester Hours: 15

#### Semester 2

CRITICAL: CHEM 1201.

- NFS 1014 Food Theory and Skills (4)
- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- NFS 1110 Introduction to Nutritional Sciences (3)

#### • Elective (3)

#### Total Semester Hours: 15

#### Semester 3

CRITICAL: NFS 1014, NFS 1110.

- BIOL 1011 Microorganisms and Man (3)
- BIOL 1012 Microorganisms and Man Laboratory (1)
- CHEM 2060 Survey of Organic Chemistry (3)
- NFS 2112 Human Lifecycle Nutrition (3)
- KIN 1600 Individual Wellness and Public Health (3)
- PSYC 2000 Introduction to Psychology (3)
- Total Semester Hours: 16

### Semester 4

CRITICAL: BIOL 1011.

- ENGL 2000 English Composition (3)
- EXST 2201 Introduction to Statistical Analysis (4)
- NFS 2000 Fundamentals of Food Science (3)
- NFS 2110 Methods of Nutritional Assessment (3)
- KIN 2603 Consumer Health (3)

#### Total Semester Hours: 16

#### Semester 5

CRITICAL: ENGL 2000.

- BIOL 2083 The Elements of Biochemistry (3)
- NFS 3000 Food Safety (3)
- NFS 4070 Food Laws, Standards and Regulations (2)
- NFS 3110 Nutrition Counseling and Education (3)
- MC 2000 Introduction to Mass Media (3)
- Elective (1)

#### Total Semester Hours: 15

#### Semester 6

- CMST 2060 Public Speaking (3)
- NFS 3114 Food and Culture (3)
- NFS 3116 Community Nutrition (3)
- General Education course Social Sciences (3)
- Elective (3)

#### Total Semester Hours: 15

#### Semester 7

- NFS 4021 Contemporary Topics in Nutrition (1)
- MGT 3200 Principles of Management (3)
- General Education course Arts (3)
- Electives (9)

#### Total Semester Hours: 16 Semester 8

- KIN 4606 Introduction to Health Promotion (3)
- General Education course Humanities (6)<sup>1</sup>
- Elective (3)

# Total Semester Hours: 12 120 Total Sem. Hrs.

<sup>1</sup> - General Education Humanities: three hours chosen from a 2000-level literature course on the General Education list and three hours chosen from any course on the General Education Humanities list.

# Nutritional Sciences/Pre-Medical CRITICAL REQUIREMENTS

Semester 1: "C" or better in ENGL 1001; CHEM 1201. Semester 2: CHEM 1202; NFS 1110. Semester 3: CHEM 2261. Semester 4: NFS 2110; CHEM 2262. Semester 5: PHYS 2001; BIOL 4087.

#### Semester 1

**CRITICAL:**"C" or better in ENGL 1001, CHEM 1201.

- ENGL 1001 English Composition (3)
- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)
- MATH 1550 Analytic Geometry and Calculus I (5)
- CHEM 1201 General Chemistry I (3)

#### Total Semester Hours: 15

#### Semester 2

CRITICAL: CHEM 1202; NFS 1110.

- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1)
- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- NFS 1110 Introduction to Nutritional Sciences (3)
- Elective (3)
- **Total Semester Hours: 15**

#### Semester 3

CRITICAL: CHEM 2261.

- BIOL 2153 Principles of Genetics (4)
- CHEM 2261 Organic Chemistry (3)
- NFS 2112 Human Lifecycle Nutrition (3)
- General Education course Social Sciences (3)
- Electives (4)

#### Total Semester Hours: 17

#### Semester 4

CRITICAL: NFS 2110; CHEM 2262.

- CHEM 2262 Organic Chemistry (3)
- CHEM 2364 Organic Chemistry Laboratory (2)
- ENGL 2000 English Composition (3)
- EXST 2201 Introduction to Statistical Analysis (4)
- NFS 2000 Fundamentals of Food Science (3)
- NFS 2110 Methods of Nutritional Assessment (3)

# Total Semester Hours: 18

#### Semester 5

CRITICAL: PHYS 2001; BIOL 4087.

- BIOL 4087 Basic Biochemistry (4)
- NFS 3000 Food Safety (3)
- PHYS 2001 General Physics I (3)
- NFS 3110 Nutrition Counseling and Education (3)
- PHYS 2108 Introductory Physics Laboratory (1)

#### Total Semester Hours: 14 Semester 6

- CMST 2060 Public Speaking (3)
- NFS 3115 Human Nutrition and Metabolism (3)

- NFS 3116 Community Nutrition (3)
- PHYS 2002 General Physics II (3)
- PHYS 2109 General Physics Laboratory (1)
- General Education course Social Sciences (3)

#### Total Semester Hours: 16

#### Semester 7

- NFS 4021 Contemporary Topics in Nutrition (1)
- NFS 4111 Nutrition and Disease I (4)
- General Education course Arts (3)
- Electives (4)

#### Total Semester Hours: 12 Semester 8

Semester

- NFS 4110 Capstone in Nutritional Sciences (3)
- NFS 4114 Nutrition and Disease II (4)
- General Education course Humanities (6)<sup>1</sup>

# Total Semester Hours: 13

#### 120 Total Sem. Hrs.

<sup>1</sup> - General Education Humanities: three hours chosen from a 2000-level literature course on the General Education list and three hours chosen from any course on the General Education Humanities list.

# **Human Nutrition Minor**

To graduate with a *minor in human nutrition*, students must complete at least 18-23 hours including NFS 1110, NFS 2110, NFS 2112, NFS 3110 and NFS 3115. In addition, students must choose one of the two areas of study options listed below:

- Community Nutrition—choose one from NFS 3114 or NFS 3116
- Nutrition—NFS 4111 and NFS 4114.

# School of Plant, Environmental & Soil Sciences

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# **CURRICULA:**

- Environmental Management Systems (Environmental Analysis and Risk Management; Policy Analysis; Resource Conservation)
- Plant & Soil Systems (Crop Science; Environmental Horticulture; Horticultural Science; Landscape Management; Soil Science; Sustainable Production Systems; Turfgrass Management)

The School of Plant, Environmental & Soil Sciences offers degree programs in environmental management systems and plant and soil systems curricula. These curricula provide students with preparation for careers in management, consulting, regulatory and public relations, or sales and services in agricultural, natural resources, or environmental industries. Some students use these science-based curricula as foundations to pursue graduate studies in agronomic, horticultural or environmental sciences, or professional degrees in medicine or law.

Students are given opportunities to gain valuable experience through internships in the agronomic, horticultural or environmental business communities, special research projects with faculty members, and/or part-time student employee positions.

# **Environmental Management Systems**

Louisiana is blessed with abundant natural resources. To protect public and ecological health, and restore air, soil, and water quality, Louisiana has developed one of the strongest professional environmental communities in the world. The environmental management systems curriculum provides students with the knowledge and skills to work as part of this environmental community in a variety of areas of specialization, including air permitting, environmental enforcement, soil conservation, water quality, wetland delineation, environmental compliance, coastal restoration, and risk assessment and management. Environmental management systems graduates are well-qualified for a variety of careers because of their solid training in sciences, problem-solving, and written and oral communication, all of which will be critical for the fast paced, ever-changing future job market that will favor workers who are well-trained and demonstrate flexibility and adaptability.

The environmental management systems curriculum is partitioned into three areas of concentration: (1) environmental analysis and risk management, (2) policy analysis, and (3) resource conservation. Each concentration includes a variety of elective courses that allow students to gain expertise in specific areas that interest them. Particularly in their junior and senior year, students interact with a wide range of accomplished environmental professionals to refine their program of study and career goal, and focus on specific career paths within the broad environmental management field. However, the environmental management systems curriculum is designed to be sufficiently flexible to allow students to prepare for positions in the public or private sectors working in the office, laboratory, or field.

Graduates with a concentration in *environmental analysis and risk management* will have a knowledge and practical understanding of: chemistry (analytical, organic, and quantitative analysis, instrumentation, soil and water chemistry); environmental microbiology; environmental fate and transport geology (hydrology); land use planning (including GIS/GPS); site investigation principles and collection methods; human and ecological risk assessment; and federal and local regulations governing site assessment, site evaluation, and site remediation.

Graduates with a concentration in *policy analysis* will have a knowledge and practical understanding of: role and scope of state and federal regulatory agencies; environmental laws and regulations; mechanisms for implementation of regulations, compliance

with regulations, permits, audits, etc.; environmental auditing systems; environmental permitting; the role of risk assessment in decision-making; and land use planning.

Graduates with a concentration in *resource conservation* will have a knowledge and practical understanding of: chemical, physical, and biological properties of soil; soil and water conservation and associated federal programs; coastal restoration; soil-plant relationships; fundamentals of forestry, wildlife, and agricultural management; land use planning (including GIS/GPS); soil and water assessment and remediation principles; and ecological risk assessment.

Environmental management systems students vary widely in their interests and career goals, but they all share a commitment to a professional career and a passion to preserve our natural resources and protect environmental quality.

Students who complete the Associates of Science in General Science with a concentration in Environmental Management Systems at Baton Rouge Community College and who have been admitted to LSU with a declared major in Environmental Management Systems in the College of Agriculture, can enter the Environmental Management Systems program at junior-level standing.

### **Plant & Soil Systems**

Plant & Soil Systems is an interdepartmental curriculum in areas of agronomy, entomology, horticulture, plant pathology, and crop physiology. All students in this curriculum take core courses that provide a basic knowledge required for specialization in one of eight areas of concentration: agricultural pest management, crop science, horticultural sciences, turf andlandscape management, soil science, sustainable production systems, and urban entomology. Each area is further individualized by the addition of approved and free electives.

The sustainable production systems concentration is a blend of applied agronomy and horticulture, with less emphasis on science and more focus on economics than the other concentrations. It prepares students for careers in management, consulting, agricultural sales, and other production-related occupations.

Students pursuing agronomic interests can concentrate their studies in the areas of crop science, soil science, or agricultural pest management. In addition to the basic curriculum outlined for plant and soil systems majors, students selecting the crop management area of concentration take courses in agronomy, biological sciences, economics, entomology, experimental statistics, genetics, and plant health.

The agricultural pest management area of concentration is an interdisciplinary program of study in weed science, plant pathology, and physical sciences, and practical training through an internship work experience. A range of restricted and non-restricted electives allow students to personalize their degree program.

Two horticultural areas of concentration (turf and landscape management and horticultural sciences) are designed to prepare students for various career opportunities.

Students selecting the horticulture sciences area of concentration will be prepared for careers in ornamental crop production, the production and processing of fruits, nuts, and vegetables or graduate studies in horticulture and related sciences. Careers include interior and exterior landscape managers, horticulture educations, wholesale production of horticulture plants, retail managers and owners, arboreta, botanical gardens, and tissue culture propagation. Career opportunities in vegetable and fruit science include jobs as field representatives and farm consultants, food processors, agricultural chemical suppliers, and produce brokers. Horticultural scientists may also conduct research in areas such as crop culture and management; molecular biology; plant breeding and genetics; plant growth and development; plant metabolism and nutrition; propagation; post-harvest and stress physiology; and tissue culture.

Students selecting the turf and landscape management area of concentration are prepared to construct landscape sites, plant and maintain woody and herbaceous plants, turfgrass, ornamental bulbs, and related crops. Careers include owning and operating landscape management companies, sports field management, golf course superintendents, or professional employment by the urban agricultural products industry. In addition to the basic core courses in the curriculum, students study pest identification and control, pesticide application techniques, and landscape design.

Environmental Management Systems , B.S. Areas of Concentration Environmental Analysis & Risk Management CRITICAL REQUIREMENTS

SEMESTER 1: MATH 1021. SEMESTER 2: CHEM 1201; MATH 1022. SEMESTER 3: EMS 1011; BIOL 1201. SEMESTER 4: BIOL 1202. SEMESTER 5: CHEM 2060/CHEM 2261; ENGL 2000.

### Semester 1

CRITICAL: MATH 1021.

- EMS 1011 Environment and Technology: Perspective on Environmental Problems (3)
- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)
- ENGL 1001 English Composition (3)
- MATH 1021 College Algebra (3)
- General Education course Humanities (3)

#### Total Semester Hours: 16

Semester 2

CRITICAL:CHEM 1201; MATH 1022.

- CHEM 1201 General Chemistry I (3)
- BIOL 1202 Biology for Science Majors II (3)
- POLI 2051 American Government (3) or
- SOCL 2001 Introductory Sociology (3)
- MATH 1022 Plane Trigonometry (3)
- General Education course Arts (3)

#### Total Semester Hours: 15 Semester 3

CRITICAL: EMS 1011; BIOL 1201.

- AGEC 2003 Introduction to Agricultural Economics (3) or
- ECON 2030 Economic Principles (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1)
- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- CMST 2060 Public Speaking (3)
- General Electives (2)

#### **Total Semester Hours: 14**

#### Semester 4

CRITICAL: BIOL 1202.

- CHEM 2060 Survey of Organic Chemistry (3) or
- CHEM 2261 Organic Chemistry (3)
- EMS 2011 Analysis of Environmental Issues (3)
- AGRO 2051 Soil Science (4)
- ENGL 2000 English Composition (3)
- MATH 1431 Calculus with Business and Economic Applications (3)

#### Total Semester Hours: 16

#### Semester 5

**CRITICAL:** CHEM 2060/CHEM 2261; ENGL 2000.

- CHEM 2001 Analytical Chemistry (3)
- MGT 3200 Principles of Management (3)
- PHYS 2001 General Physics I (3)
- General Education course Humanities (3)
- General Elective (3)

#### Total Semester Hours: 15 Semester 6

- BIOL 2051 General Microbiology (4)
- AGRO 4055 Chemical Properties of Soil (4)
- EXST 2201 Introduction to Statistical Analysis (4)
- General Electives (3)

#### Total Semester Hours: 15 Semester 7

- EMS 3050 Envir
  - EMS 3050 Environmental Regulations and Compliance (3)
- Approved Electives (13)<sup>1</sup>
- Total Semester Hours: 16

#### Semester 8

- EMS 3040 Applied Environmental Management (4)
- EMS 4020 Quantitative Risk Assessment (3)
- Approved Electives (6)<sup>1</sup>

#### Total Semester Hours: 13

#### 120 Total Sem. Hrs.

<sup>1</sup> - A list of approved electives is available in the School of Plant, Environmental and Soil Sciences. Students may select no more than six hours of approved electives below the 3000-level.

# Policy Analysis CRITICAL REQUIREMENTS

SEMESTER 1: MATH 1021. SEMESTER 2: CHEM 1201; MATH 1022.

#### SEMESTER 3: EMS 1011; BIOL 1201. SEMESTER 4: BIOL 1202; CHEM 1202. SEMESTER 5: CHEM 2060/CHEM 2261; ENGL 2000.

# Semester 1

#### CRITICAL: MATH 1021.

- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)
- ENGL 1001 English Composition (3)
- EMS 1011 Environment and Technology: Perspective on Environmental Problems (3)
- MATH 1021 College Algebra (3)
- General Education course Humanities (3)

Total Semester Hours: 16

#### Semester 2

CRITICAL: CHEM 1201; MATH 1022.

- AGEC 2003 Introduction to Agricultural Economics (3) or
- ECON 2030 Economic Principles (3)
- CHEM 1201 General Chemistry I (3)
- MATH 1022 Plane Trigonometry (3)
- General Education course Arts (3)

Total Semester Hours: 12

#### Semester 3

CRITICAL: EMS 1011; BIOL 1201.

- CHEM 1202 General Chemistry (3)
- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1)
- POLI 2051 American Government (3) or
- SOCL 2001 Introductory Sociology (3)
- CMST 2060 Public Speaking (3)
- General Elective (3)

Total Semester Hours: 16 Semester 4 CRITICAL: BIOL 1202; CHEM 1202.

- CHEM 2060 Survey of Organic Chemistry (3) or
- CHEM 2261 Organic Chemistry (3)
- AGRO 2051 Soil Science (4)
- EMS 2011 Analysis of Environmental Issues (3)
- ENGL 2000 English Composition (3)
- MATH 1431 Calculus with Business and Economic Applications (3)

# Total Semester Hours: 16

#### Semester 5

**CRITICAL:** CHEM 2060/CHEM 2261; ENGL 2000.

- AGEC 3803 Agricultural Law (3)
- EXST 2201 Introduction to Statistical Analysis (4)
- MGT 3200 Principles of Management (3)
- General Education course Humanities (3)
- General Elective (3)

#### Total Semester Hours: 16 Semester 6

- CHEM 1212 General Chemistry Laboratory (2)
- AGRO 4078 Land Use Planning and Land Management (3)
- ENVS 4101 Environmental Chemistry (3)
- PHYS 2001 General Physics I (3)
- Approved Elective (3)<sup>1</sup>

#### Total Semester Hours: 14

#### Semester 7

- ENVS 4261 Energy and the Environment (3) or
- ENVS 4262 Environmental Hazards Analysis (3) or
- ENVS 4264 Regulation of Environmental Hazards (3) or
- ENVS 4266 Ocean Policy (3)
- Approved Electives (6)<sup>1</sup>
- General Elective (2)
- EMS 3050 Environmental Regulations and Compliance (3)

#### Total Semester Hours: 14 Semester 8

- AGEC 3503 Natural Resource Economics (3) or
- ECON 4320 Environmental Economics (3)
- EMS 4020 Quantitative Risk Assessment (3)
- OCS 4465 Coastal Zone Management (3)
- Approved Elective (3)<sup>1</sup>
- EMS 3040 Applied Environmental Management (4)

#### Total Semester Hours: 16 120 Total Sem. Hrs.

<sup>1</sup> - A list of approved electives is available in the School of Plant, Environmental and Soil Sciences. Students may select no more than six hours of approved electives below the 3000-level.

# **Resource Conservation**

# **CRITICAL REQUIREMENTS**

SEMESTER 1: MATH 1021. SEMESTER 2: CHEM 1201; MATH 1022. SEMESTER 3: EMS 1011; BIOL 1201. SEMESTER 4: BIOL 1202; CHEM 1202. SEMESTER 5: CHEM 2060/CHEM 2261; ENGL 2000.

#### Semester 1

#### CRITICAL:MATH 1021.

- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)
- ENGL 1001 English Composition (3)
- EMS 1011 Environment and Technology: Perspective on Environmental Problems (3)
- MATH 1021 College Algebra (3)
- General Education course Humanities (3)

Total Semester Hours: 16

#### Semester 2

**CRITICAL:**CHEM 1201; MATH 1022.

- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1)
- MATH 1022 Plane Trigonometry (3)
- CHEM 1201 General Chemistry I (3)
- AGEC 2003 Introduction to Agricultural Economics (3) or
- ECON 2030 Economic Principles (3)

#### **Total Semester Hours: 13**

Semester 3

- POLI 2051 American Government (3) or
- SOCL 2001 Introductory Sociology (3)
- CMST 2060 Public Speaking (3)
- CHEM 1202 General Chemistry (3)
- General Education course Humanities (3)
- General Elective (3)

#### Total Semester Hours: 15 Semester 4

CRITICAL: BIOL 1202; CHEM 1202.

- CHEM 2060 Survey of Organic Chemistry (3) or
- CHEM 2261 Organic Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- AGRO 2051 Soil Science (4)

- EMS 2011 Analysis of Environmental Issues (3)
- ENGL 2000 English Composition (3)
- MATH 1431 Calculus with Business and Economic Applications (3)

#### Total Semester Hours: 18

#### Semester 5

**CRITICAL:** CHEM 2060/CHEM 2261; ENGL 2000.

- EXST 2201 Introduction to Statistical Analysis (4)
- MGT 3200 Principles of Management (3)
- General Education course Arts (3)
- See option for plant courses below (3-4)<sup>2</sup>

# Total Semester Hours: 13-14

#### Semester 6

- AGEC 3503 Natural Resource Economics (3)
- PHYS 2001 General Physics I (3)
- Area of Concentration Approved Electives (6-7)<sup>1</sup>
- General Elective (3)

#### Total Semester Hours: 15-16 Semester 7

- AGRO 4055 Chemical Properties of Soil (4)
- AGRO 4078 Land Use Planning and Land Management (3)
- GEOG 4047 Geographic Information Systems (3)
- General Elective (1)
- EMS 3050 Environmental Regulations and Compliance (3)

# Total Semester Hours: 14

#### Semester 8

- EMS 3040 Applied Environmental Management (4)
- AGRO 4052 Soil Fertility and Soil Management (4)
- EMS 4020 Quantitative Risk Assessment (3)
- OCS 4560 Wetland Loss, Restoration and Management (3) or
- OCS 4465 Coastal Zone Management (3)
- General Elective (2-0)

#### Total Semester Hours: 16-14 120 Total Sem. Hrs.

<sup>1</sup> - A list of approved electives is available in the School of Plant, Environmental and Soil Sciences.

<sup>2</sup> - Select one of the following options: AGRO 4070, HORT 2050, HORT 2061, or OCS 4308.

CRITICAL:EMS 1011; BIOL 1201.

# Plant & Soil Systems, B.S. Areas of Concentration Crop Science CRITICAL REQUIREMENTS

Semester 1: ENGL 1001; MATH 1021. Semester 2: CHEM 1201. Semester 3: BIOL 1201; CHEM 1202. Semester 4: AGRO 2051; BIOL 1202. Semester 5: CHEM 2261.

### Semester 1

CRITICAL: ENGL 1001, MATH 1021.

- ENGL 1001 English Composition (3)
- BIOL 1201 Biology for Science Majors I (3)
- General Education course Arts (3)
- MATH 1021 College Algebra (3)
- CHEM 1201 General Chemistry I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)

### Total Semester Hours: 16 Semester 2

CRITICAL:CHEM 1201.

- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1)
- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- AGRO 1001 Plants and People (3)
   General Education course Humanities (3)
- Total Semester Hours: 15

Semester 3

CRITICAL: BIOL 1201; CHEM 1202.

- AGRO 2051 Soil Science (4)
- AGEC 2003 Introduction to Agricultural Economics (3) or
- ECON 2030 Economic Principles (3)
- BIOL 1011 Microorganisms and Man (3) or
- BIOL 2051 General Microbiology (4)
- CHEM 2060 Survey of Organic Chemistry (3) or
- CHEM 2261 Organic Chemistry (3)

• General Education course - Humanities (3)

Total Semester Hours: 16-17

Semester 4

CRITICAL:AGRO 2051; BIOL 1202.

- CMST 2060 Public Speaking (3)
- BIOL 2083 The Elements of Biochemistry (3)
- ENGL 2000 English Composition (3)
- AGRO 3040 Soil Conservation (2)
- AGRO 3010 Research Problems (3) or
- AGRO 3090 Agronomic Internship (3)
- EXST 2201 Introduction to Statistical Analysis (4)

# Total Semester Hours: 18 Semester 5

CRITICAL: CHEM 2261.

- BIOL 3060 Introductory Plant Physiology (4) or
- PLHL 3060 Introductory Plant Physiology (4) or
- HORT 2860 Growth and Development of Agricultural Crops (3)
- PLHL 4000 General Plant Pathology (4)
- ENTM 4006 Fundamentals of Applied Entomology (3)
- ANSC 2072 Introductory Agricultural Genetics (3) or
- BIOL 2153 Principles of Genetics (4)

# Total Semester Hours: 14

#### Semester 6

- PLHL 4001 Plant Disease Management and Control (3)
- Approved Electives (8-7)<sup>1</sup>
- General Education course Social Sciences (3)

# Total Semester Hours: 14-13

#### Semester 7

- AGRO 4052 Soil Fertility and Soil Management (4)
- AGRO 4070 Weed Science and the Environment (3)
- Approved Electives (6)<sup>1</sup>

#### **Total Semester Hours: 13**

#### Semester 8

- AGRO 4078 Land Use Planning and Land Management (3)
- HORT 3503 Sustainable Horticulture (3)
- Approved Electives (8)<sup>1</sup>

#### Total Semester Hours: 14

#### 120 Total Sem. Hrs.

<sup>1</sup> - A list of approved electives is available in the School of Plant, Environmental & Soil Sciences.

## Horticulture Sciences CRITICAL REQUIREMENTS

Semester 1: ENGL 1001; MATH 1021. Semester 2: BIOL 1001/BIOL 1201;MATH 1022/EXST 2201 Semester 3: HORT 2050;CHEM 1001/CHEM 1201 Semester 4: AGRO 2051 Semester 5:ENGL 2000

# Semester 1

CRITICAL: ENGL 1001, MATH 1021.

- ENGL 1001 English Composition (3)
- BIOL 1001 General Biology (3) or
- BIOL 1201 Biology for Science Majors I (3)
- MATH 1021 College Algebra (3)
- CHEM 1001 Chemical Fundamentals (3) or
- CHEM 1201 General Chemistry I (3)
- General Education course Arts (3)

# Total Semester Hours: 15

#### Semester 2

CRITICAL:BIOL 1001/BIOL 1201;MATH 1022/EXST 2201

- BIOL 1002 General Biology (3) or
- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1005 Introductory Biology Laboratory (2) or
- BIOL 1208 Biology Laboratory for Science Majors I (1)
- CHEM 1002 Chemistry of Life and the Environment (3) or
- CHEM 1202 General Chemistry (3)
- MATH 1022 Plane Trigonometry (3) or
- EXST 2201 Introduction to Statistical Analysis (4)

• General Education course - Humanities (3) Total Semester Hours: 13-15 Semester 3

- **CRITICAL:** HORT 2050; CHEM 1001/CHEM 1201.
- AGRO 2051 Soil Science (4)

- AGEC 2003 Introduction to Agricultural Economics (3) or
- ECON 2030 Economic Principles (3)
- HORT 2050 General Horticulture (3)
- HORT 2070 Horticulture Lab (1)
- General Education course Humanities (3)

Total Semester Hours: 14

# Semester 4

# CRITICAL:AGRO 2051.

- CMST 2060 Public Speaking (3)
- ENGL 2000 English Composition (3)
- ENTM 2001 Insects in the Environment (3)
- HORT 3122 Herbaceous Plant Materials (3)
- General Education course Social Sciences (3)

Total Semester Hours: 15 Semester 5

#### CRITICAL:ENGL 2000.

- PLHL 4000 General Plant Pathology (4)
- HORT 2086 Introduction to Turfgrass Management (3)
- HORT 2860 Growth and Development of Agricultural Crops (3) or
- PLHL 3060 Introductory Plant Physiology (4)
- HORT 3000 Horticultural Internship (3) or
- HORT 3010 Research Problems (3)
- Approved Electives (3-2)<sup>1</sup> Total Semester Hours: 16

# Semester 6

- HORT 2061 Plant Propagation (3)
- HORT 2120 Woody Plant Materials I (3)
- HORT 4020 Greenhouse Management and Controlled Environment Agriculture (4)
- HORT 4040 International Horticulture (3)
- Approved Electives (3)<sup>1</sup>

#### Total Semester Hours: 16

#### Semester 7

- AGRO 4052 Soil Fertility and Soil Management (4)
- HORT 4083 Principles and Practices in Olericulture (4)
- HORT 4071 Nursery Management (3)
- Approved Electives (5-3)<sup>1</sup>

Total Semester Hours: 16-14 Semester 8

- AGRO 4070 Weed Science and the Environment (3)
- HORT 4099 Horticulture Capstone (2)
- HORT 4085 Principles and Practices in Fruit and Nut Production (4)
- Approved Electives (6)<sup>1</sup>

#### Total Semester Hours: 15 120 Total Sem. Hrs.

<sup>1</sup> - A list of approved electives is available in the School of Plant, Environmental, and Social Sciences.

# Soil Science CRITICAL REQUIREMENTS

Semester 1: ENGL 1001; MATH 1021. Semester 2: CHEM 1201; MATH 1022. Semester 3: BIOL 1201; CHEM 1202. Semester 4: AGRO 2051; BIOL 1202. Semester 5: CHEM 2060/CHEM 2261.

# Semester 1

CRITICAL: ENGL 1001, MATH 1021.

- ENGL 1001 English Composition (3)
- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)
- MATH 1021 College Algebra (3)
- General Education course Social Sciences (3)
- CHEM 1201 General Chemistry I (3)

# Total Semester Hours: 16

Semester 2

CRITICAL:CHEM 1201; MATH 1022.

- BIOL 1202 Biology for Science Majors II (3)
- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- MATH 1022 Plane Trigonometry (3)
- General Education course Humanities (3)

# Total Semester Hours: 14

#### Semester 3

CRITICAL: BIOL 1201; CHEM 1202.

- AGRO 2051 Soil Science (4)
- AGEC 2003 Introduction to Agricultural Economics (3) or
- ECON 2030 Economic Principles (3)
- BIOL 1011 Microorganisms and Man (3) or
- BIOL 2051 General Microbiology (4)
- CHEM 2060 Survey of Organic Chemistry (3) or

- CHEM 2261 Organic Chemistry (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1)
  - General Education course Humanities (3)

# Total Semester Hours: 17-18

#### Semester 4

CRITICAL:AGRO 2051; BIOL 1202.

- CMST 2060 Public Speaking (3)
- CHEM 2001 Analytical Chemistry (3)
- ENGL 2000 English Composition (3)
- GEOL 1001 General Geology: Physical (3)
- EXST 2201 Introduction to Statistical Analysis (4)

Total Semester Hours: 16 Semester 5

#### CRITICAL: CHEM 2060/CHEM 2261.

- BIOL 3060 Introductory Plant Physiology (4) or
- PLHL 3060 Introductory Plant Physiology (4) or
- HORT 2860 Growth and Development of Agricultural Crops (3)
- CHEM 2002 Analytical Chemistry Laboratory (1)
- GEOL 1601 Physical Geology Laboratory (1)
- PHYS 2001 General Physics I (3)
- PLHL 4000 General Plant Pathology (4)

#### Total Semester Hours: 12-13

#### Semester 6

- AGRO 3010 Research Problems (3) or
- AGRO 3090 Agronomic Internship (3)
- AGRO 4055 Chemical Properties of Soil (4)
- Approved Electives (5)<sup>1</sup>
- General Education course Arts (3)

#### Total Semester Hours: 15

#### Semester 7

- AGRO 4052 Soil Fertility and Soil Management (4)
- AGRO 4078 Land Use Planning and Land Management (3)
- Approved Electives (6)<sup>1</sup>
- **Total Semester Hours: 13**

#### Semester 8

- AGRO 4056 Microbial Ecology and Nutrient Cycling in Soils (4)
- AGRO 4058 Soil Morphology and Classification (4)

• Approved Electives (9-7)<sup>1</sup>

#### Total Semester Hours: 17-15 120 Total Sem. Hrs.

<sup>1</sup> - A list of approved electives is available from the School of Plant, Environmental, and Soil Sciences

# Sustainable Production Systems CRITICAL REQUIREMENTS

Semester 1:ENGL 1001; MATH 1021. Semester 2: BIOL 1001/BIOL 1201; MATH 1022 or EXST

2201.

Semester 3: AGRO 1001. Semester 4: AGRO 2051; BIOL 1002/BIOL 1202. Semester 5: HORT 2050.

# Semester 1

CRITICAL: ENGL 1001, MATH 1021.

- ENGL 1001 English Composition (3)
- BIOL 1001 General Biology (3) or
- BIOL 1201 Biology for Science Majors I (3)
- MATH 1021 College Algebra (3)
- CHEM 1001 Chemical Fundamentals (3) or
- CHEM 1201 General Chemistry I (3)
- General Education course Arts (3)
- General Education course Social Sciences (3)
- Total Semester Hours: 18

#### Semester 2

**CRITICAL:** BIOL 1001/BIOL 1201; MATH 1022/EXST 2201.

- BIOL 1002 General Biology (3) or
- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1005 Introductory Biology Laboratory (2) <sup>3</sup>
- CHEM 1002 Chemistry of Life and the Environment (3) or
- CHEM 1202 General Chemistry (3)
- MATH 1022 Plane Trigonometry (3) or
- EXST 2201 Introduction to Statistical Analysis (4)
- General Education course Humanities (3)

Total Semester Hours: 14-15 Semester 3

#### CRITICAL: AGRO 1001.

- AGRO 1001 Plants and People (3)
- AGEC 2003 Introduction to Agricultural Economics (3) or
- ECON 2030 Economic Principles (3)
- AGRO 2051 Soil Science (4)
- General Education course -Humanities (3)

### Total Semester Hours: 13

#### Semester 4

**CRITICAL:** AGRO 2051; BIOL 1002/BIOL 1202

- CMST 2060 Public Speaking (3)
- AGRO 3040 Soil Conservation (2)
- ENGL 2000 English Composition (3)
- ENTM 2001 Insects in the Environment (3)
- HORT 2050 General Horticulture (3)
- HORT 2061 Plant Propagation (3)
- HORT 2070 Horticulture Lab (1)

#### Total Semester Hours: 18

#### Semester 5

CRITICAL: HORT 2050.

- PLHL 4000 General Plant Pathology (4)
- AGEC Course (3)<sup>1</sup>
- BIOL 3060 Introductory Plant Physiology (4) or
- PLHL 3060 Introductory Plant Physiology (4) or
- HORT 2860 Growth and Development of Agricultural Crops (3)
- Approved Elective (2-1)<sup>2</sup>

#### Total Semester Hours: 12 Semester 6

- ENTM 4006 Fundamentals of Applied Entomology (3) or
- ENTM 4012 Fundamentals of Horticultural Entomology (3)
- HORT 3503 Sustainable Horticulture (3)
- HORT 3000 Horticultural Internship (3) or
- HORT 3010 Research Problems (3) or
- AGRO 3010 Research Problems (3) or
- AGRO 3090 Agronomic Internship (3) or
- PLHL 3000 Pest Management Internship (3) or
- ENTM 3000 Pest Management Internship (3)

• Approved Electives (6)<sup>2</sup>

#### Total Semester Hours: 15 Semester 7

- AGRO 4052 Soil Fertility and Soil Management (4)
- PLHL 4001 Plant Disease Management and Control (3)
- Approved Electives (8-7)<sup>2</sup>

#### Total Semester Hours: 15-14 Semester 8

- AGRO 4070 Weed Science and the Environment (3)
- AGRO 4078 Land Use Planning and Land Management (3)
- Approved Electives  $(9)^2$

#### Total Semester Hours: 15

#### 120 Total Sem. Hrs.

<sup>1</sup> - AGEC COURSE: Select one from AGEC 3303, AGEC 3413, AGEC 4443.

<sup>2</sup> - A list of approved electives is available in the School of Plant, Environmental & Soil Sciences.

<sup>3</sup> - Students may elect to take BIOL 1208 and BIOL 1209 in place of BIOL 1005.

# Turf and Landscape Management CRITICAL REQUIREMENTS

Semester 1: ENGL 1001; MATH 1021.

Semester 2:BIOL 1001/BIOL 1201;MATH 1022/EXST 2201.

Semester 3:HORT 2050;CHEM 1001/CHEM 1201. Semester 4: AGRO 2051. Semester 5:ENGL 2000.

#### Semester 1

CRITICAL: ENGL 1001; MATH 1021.

- ENGL 1001 English Composition (3)
- BIOL 1001 General Biology (3) or
- BIOL 1201 Biology for Science Majors I (3)
- MATH 1021 College Algebra (3)
- CHEM 1001 Chemical Fundamentals (3) or
- CHEM 1201 General Chemistry I (3)

• General Education course - Arts (3) Total Semester Hours: 15 Semester 2

# CRITICAL:BIOL 1001/BIOL 1201;MATH 1022/EXST 2201.

- BIOL 1002 General Biology (3) or
- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1005 Introductory Biology Laboratory (2) or
- BIOL 1208 Biology Laboratory for Science Majors I (1)
- CHEM 1002 Chemistry of Life and the Environment (3) or
- CHEM 1202 General Chemistry (3)
- MATH 1022 Plane Trigonometry (3) or
- EXST 2201 Introduction to Statistical Analysis (4)
- General Education course Humanities (3)

# Total Semester Hours: 13-15

#### Semester 3

CRITICAL:HORT 2050;CHEM 1001/CHEM 1201.

- AGRO 2051 Soil Science (4)
- AGEC 2003 Introduction to Agricultural Economics (3) or
- ECON 2030 Economic Principles (3)
- HORT 2050 General Horticulture (3)
- HORT 2070 Horticulture Lab (1)
- General Education Course Humanities (3)

#### Total Semester Hours: 14

#### Semester 4

CRITICAL: AGRO 2051.

- CMST 2060 Public Speaking (3)
- ENGL 2000 English Composition (3)
- ENTM 2001 Insects in the Environment (3)
- HORT 2020 Installation and Maintenance of Ornamentals in the Landscape I (2)
- HORT 3122 Herbaceous Plant Materials (3)

# Total Semester Hours: 14

#### Semester 5

#### CRITICAL:ENGL 2000.

- PLHL 4000 General Plant Pathology (4)
- HORT 2086 Introduction to Turfgrass Management (3)

- HORT 2860 Growth and Development of Agricultural Crops (3) or
- PLHL 3060 Introductory Plant Physiology (4)
- HORT 3000 Horticultural Internship (3) or
- HORT 3010 Research Problems (3)
- HORT 3030 Installation and Maintenance of Ornamentals in the Landscape II (2)

#### Total Semester Hours: 15-16 Semester 6

- HORT 2061 Plant Propagation (3)
- HORT 2120 Woody Plant Materials I (3)
- HORT 3005 Horticulture Applications (3)
- Approved Electives (3)<sup>1</sup>
- General Education Course Social Sciences (3)

#### Total Semester Hours: 15

#### Semester 7

• AGRO 4052 Soil Fertility and Soil Management (4)

- HORT 4083 Principles and Practices in Olericulture (4) or
- HORT 4085 Principles and Practices in Fruit and Nut Production (4)
- Approved Electives (9-8)<sup>1</sup>

#### Total Semester Hours: 17-16 Semester 8

- AGRO 4070 Weed Science and the Environment (3)
- HORT 4091 Advanced Turfgrass Management (3)
- HORT 4099 Horticulture Capstone (2)
- Approved Electives (9-7)<sup>1</sup>
- Total Semester Hours: 17-15

#### 120 Total Sem. Hrs.

<sup>1</sup> - A list of approved electives is available in the School of Plant, Environmental, and Soil Sciences.

#### **Agricultural Pest Management Minor**

To graduate with a *minor in agricultural pest management*, students must complete a minimum of 18 hours of coursework in pest management. Specific requirements include: ENTM 2001; PLHL 4000; AGRO 4070; and seven additional hours chosen from ENTM 4005, ENTM 4006, ENTM 4012, ENTM 4018/PLHL 4018, PLHL 4001, AGRO 4071. Of the seven elective hours, at least one course must be from entomology.

#### **Agronomy Minor**

To graduate with a *minor in agronomy*, students must complete AGRO 2051 and 14 additional hours in agronomy. At least six hours of the 14 must be at the 3000 or 4000 level. The minor in agronomy is not available to students in plant and soil systems.

#### **Environmental Management Systems Minor**

To graduate with a *minor in environmental management systems*, students must complete 18 hours consisting of EMS 1011, EMS 2011, EMS 3040, and EMS 3050, and 5 hours chosen from any 3000 or 4000 level EMS course.

Note: Some courses require prerequisites.

This minor is not available to students majoring in Environmental Management Systems.

#### **Horticulture Minor**

To graduate with a *minor in horticulture*, students must complete seven hours consisting of HORT 2050, HORT 2061, and HORT 2070; and 11 additional hours in HORT. This minor is not available to students majoring in plant and soil systems.

# **School of Renewable Natural Resources**

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# **CURRICULA:**

Natural Resource Ecology & Management

The School of Renewable Natural Resources offers undergraduate and graduate education to students who wish to discover the natural world and ways to improve the management and conservation of wildlife, fisheries, wetlands, forests, and other renewable resources, protect biodiversity, and promote conservation of diverse ecosystems. One undergraduate curriculum with several concentrations is available that provides students with professional education in natural resource ecology and management.

The curriculum in natural resource ecology and management consists of a set of core courses taken by all students in the School to assure the broad understanding of natural resource ecology, sustainability, policy, and management. The natural resource ecology and management curriculum has an additional set of required courses specific to concentrations within the curriculum. There is considerable flexibility within the degree program because areas of concentration target professional specialties, yet allow individual flexibility in course selection. Emphasis on hands-on problem-based learning, critical thinking, communication skills, and multidisciplinary team activities put students in "real-world" situations with current and anticipated problems that will better prepare students for successful careers.

# Bachelor of Science in Natural Resource Ecology & Management

This degree program teaches students about the ecology and natural history of plant and animal populations and communities, specifically wildlife, wild and propagated fish (aquaculture), forests, watersheds, and wetlands, to enable enhanced management and conservation of biotic resources based on the latest developments in research and management practices. Students receive broad-based training in identification, natural history, population ecology, conservation biology, and policy and regulatory issues that will affect living natural resources. The curriculum is designed to prepare students for careers as professionals in a broad range of natural resource management disciplines. Students in natural resource ecology and management tailor their coursework to their career goals by choosing one of the nine areas of concentration: conservation biology, ecological restoration, fisheries and aquaculture, forest resource management, forest enterprise, wetland science, wildlife ecology, wildlife habitat conservation and management, and pre-veterinary medicine wildlife and fisheries.

Career opportunities for graduates of the natural resource ecology and management curriculum are available in state and federal agencies, non-governmental conservation organizations, private environmental consulting firms, forest and other natural resource industries, environmental law, and academic careers. Students often will pursue advanced degrees in the sciences, veterinary school, or law school before entering their career positions. Students pursuing the Bachelor of Science degree in natural resource ecology and management typically complete the educational requirements for graduates to be certified by The Wildlife Society, American Fisheries Society, Society of American Foresters, or Society of Wetland Scientists.

The conservation biology area of concentration is designed to educate students concerning ways to protect biodiversity, enhance the conservation of species of ecological concern, and improve the prospects for species considered threatened and endangered. This includes a broad base of training in ecology, taxonomy, the genetics of small populations, human dimensions of resource management, and the principles of population biology. Many students in this area of concentration will pursue advanced degrees prior to employment.

The ecological restoration area of concentration builds on this foundation for students planning a career with state, federal, or private entities in environmental and ecological monitoring, ecological restoration, or remediation work. Interest in the restoration of ecosystems disturbed by anthropogenic and natural causes is increasing. Coursework follows recommendations of the Society for Ecological Restoration including knowledge of plant and animal taxonomy, geographic information systems, and wetlands. Many students in this area of concentration will pursue advanced degrees prior to employment.

The fisheries and aquaculture area of concentration focuses on the ecology and management of aquatic resources in freshwater and marine ecosystems, as well as the production of economically and ecologically important species under controlled conditions. With numerous opportunities to gain research experience, students are well prepared to pursue graduate studies or careers in aquatic resource management in private industry, agencies, consulting firms, and aquatic resource advocacy groups. Coursework follows guidelines for professional certification by the American Fisheries Society upon graduation. Many students in this area of concentration will pursue advanced degrees prior to employment.

The forest enterprise area of concentration provides skills and theory to students planning to work in forestry consulting/engineering firms and the timber and wood products industry. Considerable forestry and timber production currently occurs on private lands and involves contracting among various harvesting, processing, and land management entities. Additionally, non-timber revenues, including wildlife leases and mitigative credits and incentive programs, require different experiences of students than traditional management. Knowledge of legal precedents, business planning, contracting, and ethical best management practices is in demand among environmental consulting/engineering firms and the timber and wood products industry.

The forest resource management area of concentration is intended for students primarily interested in managing forests as a sustainable natural resource. It is designed to provide students with an appreciation of numerous aspects of forest resource management including timber and non-timber resources and prepare them for employment with public or private entities in forest resource management. Coursework follows guidelines for professional certification by the Society of American Foresters upon graduation. The forest resource management area of concentration is accredited by the Society of American Foresters.

The pre-veterinary wildlife and fisheries area of concentration is for students interested in applying to the LSU School of Veterinary Medicine prior to their 4<sup>th</sup> year, and who are interested in careers that focus on exotic animals and wildlife rather than the more traditional small and large animal practices. Health issues continue to be problems for state and federal resource agencies, and zoos and animal parks constantly deal with veterinary issues; all of these problems require people with both veterinary skills and a familiarity with a diversity of wildlife and the habitats that support them. Students may pursue a 3+1 program, in which the 4th year of the B.S. is completed during the 1st year of veterinary school. Students who do not enter veterinary school after their 3rd year will graduate in another area of concentration within the School. Students may apply again to veterinary school following graduation. The pre-veterinary wildlife and fisheries area of concentration is designed for students who begin their academic careers at LSU and are eligible to enroll in BIOL 1201 (ACT composite minimum of 23) during their first semester. Students not meeting these criteria are strongly encouraged to select another concentration, specifically wildlife ecology, to prepare for application to the study of veterinary medicine after graduation. Students transferring from other institutions should contact the School of Renewable Natural Resources Undergraduate Coordinator prior to selecting this concentration

The wetland science area of concentration is designed for students who wish to specialize in wetlands, valued as wildlife and fish habitats, for maintaining water quality, contributions to wildlife and fisheries productivity in marine and freshwaters, and for other recreational, economic, and ecosystem benefits. Graduates can anticipate working for private or government agencies that manage, restore and/or regulate wetlands, for businesses that delineate wetlands, plan and manage mitigation banks, or plan and construct restoration projects. Coursework follows guidelines for professional certification by the Society of Wetland Scientists upon graduation. Many students in this area of concentration will pursue advanced degrees prior to employment, including veterinary medicine.

The wildlife ecology area of concentration covers traditional management that focuses on wildlife populations, especially recreationally important game animals and socio-culturally important charismatic species of concern to the public. Recreational hunting is an important social and economic driver in Louisiana and throughout the United States. Scientifically -based and principled management of wildlife on public and private lands continues to be a need. Students study the principles of population growth, theory, and practices concerning population exploitation, habitat requirements and methods of management, and the way

that public policy influences wildlife resources. Coursework follows guidelines for professional certification by The Wildlife Society upon graduation. Many students in this area of concentration will pursue advanced degrees prior to employment.

The wildlife habitat conservation and management area of concentration is designed for students interested in conserving, managing, and restoring habitats to promote wildlife, fish, and habitat enhancement and increase biodiversity. Students will receive additional exposure into the theories and practice of forest land use and wetland classification and learn more about habitat manipulation and conservation strategies than in other areas of concentration in natural resource ecology and management. Students also will have the opportunity to take off-campus courses at Lee Memorial Forest and the Louisiana University Marine Consortium (LUMCON) through this area of concentration. Students in wildlife habitat conservation and management may anticipate employment with state or federal agencies that regulate and/or directly manage land and land uses, governmental agencies involved in restoration, and private environmental consulting firms that provide technical assistance to public and private landowners. Depending on coursework choices, student may qualify for professional certification by the Wildlife Society or the Society of American Foresters. Many students in this area of concentration will pursue advanced degrees prior to employment

Transportation for field trips is provided by the university but is financed by students. Field fees vary in amount, based on the cost of transportation, and are paid at the time of other university fees through the advanced billing system.

# Natural Resource Ecology & Management, B.S. Areas of Concentration Conservation Biology CRITICAL REQUIREMENTS

SEMESTER 1: MATH 1021. SEMESTER 2: MATH 1431. SEMESTER 3: CHEM 1201. SEMESTER 4: RNR 1010/RNR 1071; BIOL 1201. SEMESTER 5: RNR 2101/RNR 2001.

#### BASIC SCHOLASTIC EXPECTATIONS

\*Complete ENGL 1001and one General Education Analytical Reasoning course within the first 30 hours of study.

\*Maintain a cumulative and LSU GPA of 2.0.

\*Students entering the program with 30 or more semester hours will take one more elective in place of AGRI 1001.

# Semester 1

#### CRITICAL:MATH 1021.

- AGRI 1001 Introduction to Agriculture (1)
- ENGL 1001 English Composition (3)
- MATH 1021 College Algebra (3)
- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1) <sup>1</sup>
- RNR 1010 Introduction to Natural Resource Ecology and Management (4) or
- RNR 1071 HONORS: Introduction to Natural Resource Ecology and Management (4)

#### Total Semester Hours: 15 Semester 2

CRITICAL:MATH 1431.

- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1)<sup>1</sup>
- MATH 1431 Calculus with Business and Economic Applications (3) <sup>2</sup>
- CHEM 1201 General Chemistry I (3)
- General Education course -Arts (3)
- General Education course -Humanities (3)

Total Semester Hours: 16

#### Semester 3

CRITICAL: CHEM 1201.

- RNR 2039 Introduction to Renewable Natural Resource Policy (3) or
- RNR 2071 HONORS: Introduction to Renewable Natural Resources Policy (4)
- RNR 2101 Ecology of Renewable Natural Resources (3) or
- RNR 2070 HONORS: Ecology of Renewable Natural Resources (4)
- RNR 2102 Natural Resource Measurements and GIS (3)
- CHEM 1202 General Chemistry (3)
- Free Elective (3)

#### Total Semester Hours: 15 Semester 4

CRITICAL: RNR 1010/RNR 1071; BIOL 1201.

- ENGL 2000 English Composition (3)
- CMST 2060 Public Speaking (3)
- SOCL 2001 Introductory Sociology (3) or
- POLI 2051 American Government (3)
- General Education course Humanities (3)
- Area of Concentration Course (3)<sup>3</sup>
- Free Electives (3)

# Total Semester Hours: 18

#### Semester 5

CRITICAL: RNR 2101/RNR 2001.

- RNR 2001 Trees and Woody Plants of the Southeast (2) or
- RNR 4020 Taxonomy and Ecology of Wetland Plants (4) or
- BIOL 4020 Taxonomy and Ecology of Wetland Plants (4) or
- BIOL 4041 Plant Taxonomy (4)
- ECON 2030 Economic Principles (3)
- EXST 2201 Introduction to Statistical Analysis (4)
- Area of Concentration Courses (5)<sup>3</sup>
- Free Electives (2-0)

Total Semester Hours: 16

# Semester 6

- RNR 3105 Forest Biology (2)
- RNR 3004 Photogrammetry, GPS and GIS (3)
- Area of Concentration Courses  $(9)^3$
- Free Electives (2)

#### **Total Semester Hours: 16**

#### Semester 7

- Area of Concentration Courses (11)<sup>3</sup>
- Free Electives (5)

#### Total Semester Hours: 16 Semester 8

- RNR 4101 Capstone: Natural Resources Management, Policy and Human Dimensions (4)
- Area of Concentration Courses (10)<sup>3</sup>
- Free Electives (2)

# Total Semester Hours: 16 128 Total Sem. Hrs.

<sup>1</sup>-Students may elect to take MATH 1550/MATH 1551in place of MATH 1431.

<sup>2</sup> - Conservation Biology area of concentration courses: **REQUIRED**: CHEM 2060/CHEM 2261/PHYS 2001,
BIOL 4015/RNR 4015, ECON 4320or RNR 4038,RNR
2031/RNR 2072, RNR 3018,RNR 4103, RNR 4107,RNR
4150. Select one course from the following: RNR 4023or
RNR 4040. Select 9 hours from:BIOL 4017,EMS
3040,GEOG 4078,OCS 3103,OCS 4600,RNR 4268.

<sup>3</sup>-Students seeking federal employment following graduation should consult their academic advisor about federal requirements for animal and plant taxonomy courses.

# Ecological Restoration CRITICAL REQUIREMENTS

SEMESTER 1: MATH 1021. SEMESTER 2: MATH 1431. SEMESTER 3: CHEM 1201. SEMESTER 4: RNR 1010/RNR 1071; BIOL 1201. SEMESTER 5: RNR 2101/RNR 2001.

#### BASIC SCHOLASTIC EXPECTATIONS

\*Complete ENGL 1001and one General Education Analytical Reasoning course within the first 30 hours of study.

\*Maintain a cumulative and LSU GPA of 2.0.

\*Students entering the program with 30 or more semester hours will take one more elective in place of AGRI 1001.

#### Semester 1

CRITICAL: MATH 1021.

- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1) or

- BIOL 1207 Honors: Biology Laboratory for Science Majors (1)<sup>1</sup>
- ENGL 1001 English Composition (3)
- MATH 1021 College Algebra (3)
- RNR 1010 Introduction to Natural Resource Ecology and Management (4) or
- RNR 1071 HONORS: Introduction to Natural Resource Ecology and Management (4)
- AGRI 1001 Introduction to Agriculture (1) Total Semester Hours: 15

#### Total Semester Hol

# Semester 2

#### CRITICAL: MATH 1431.

- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1) or
- BIOL 1503 Honors: Biology for Science Majors II (4)
- CHEM 1201 General Chemistry I (3) or
- CHEM 1422 HONORS: General Chemistry (3)
- MATH 1431 Calculus with Business and Economic Applications (3) <sup>1</sup>
- General Education course Arts (3)
- General Education course Humanities (3)

#### Total Semester Hours: 16 Semester 3

# CRITICAL: CHEM 1201

- CHEM 1202 General Chemistry (3)
- RNR 2001 Trees and Woody Plants of the Southeast (2) or
- RNR 4020 Taxonomy and Ecology of Wetland Plants (4) or
- BIOL 4020 Taxonomy and Ecology of Wetland Plants (4) or
- BIOL 4041 Plant Taxonomy (4) <sup>3</sup>
- RNR 2101 Ecology of Renewable Natural Resources (3) or
- RNR 2070 HONORS: Ecology of Renewable Natural Resources (4)
- RNR 2102 Natural Resource Measurements and GIS (3)

- RNR 2039 Introduction to Renewable Natural Resource Policy (3) or
- RNR 2071 HONORS: Introduction to Renewable Natural Resources Policy (4)
- Free Electives (2-0)

#### Semester 4

CRITICAL:RNR 1010/RNR 1071; BIOL 1201.

- ENGL 2000 English Composition (3)
- CMST 2060 Public Speaking (3)
- SOCL 2001 Introductory Sociology (3) or
- POLI 2051 American Government (3)
- Area of concentration courses (9)<sup>2</sup>

# Total Semester Hours: 18

### Semester 5

CRITICAL: RNR 2101/RNR 2001.

- EXST 2201 Introduction to Statistical Analysis (4)
- AGEC 2003 Introduction to Agricultural Economics (3) or
- ECON 2030 Economic Principles (3) or
- POLI 1001 Fundamental Issues of Politics (3) or
- POLI 2053 Introduction to Comparative Politics (3) or
- POLI 2057 Introduction to International Politics (3)
- General Education course Humanities (3)
- Area of concentration courses (3)<sup>2</sup>
- Free Electives (2)

#### Total Semester Hours: 15 Semester 6

- Area of concentration courses (4)<sup>2</sup>
- Free Electives (12)

### Total Semester Hours: 16 Semester 7

- Area of concentration courses (15)<sup>2</sup>
- Free Electives(2)

### Total Semester Hours: 17 Semester 8

 RNR 4101 Capstone: Natural Resources Management, Policy and Human Dimensions (4) • Area of concentration courses  $(11)^2$ 

# Total Semester Hours: 15

### 128 Total Sem. Hrs.

<sup>1</sup> - Students may take MATH 1550/MATH 1551in place of MATH 1431.

<sup>2</sup> - Ecological Restoration area of concentration courses: **REQUIRED**: CHEM 2060/CHEM 2261/PHYS 2001,
BIOL 4015/RNR 4015,BIOL 4017, EMS 4010/ENVS
4010, OCS 4565, RNR 4038, RNR 4103, RNR 4107.
Select one course from: RNR 4023or RNR 4040. Select 16
hours from<sup>3</sup>: AGRO 3040, BIOL 4041, BIOL 4055, BIOL
4141, BIOL 4142, BIOL 4146, GEOG 2050, GEOL 1001,
ENVS 4477, OCS 4165, OCS 4560, RNR 2003, RNR
2031/RNR 2072, RNR 3005, RNR 3018, RNR 3106, RNR
3108, RNR 4001, RNR 4011, RNR 4013, RNR 4032, RNR
4033, RNR 4150, or RNR 4900.

<sup>3</sup>- Students seeking federal employment following graduation should consult their academic advisor about federal requirements for animal and plant taxonomy courses.

# Fisheries and Aquaculture CRITICAL REQUIREMENTS

SEMESTER 1: MATH 1021. SEMESTER 2: MATH 1431. SEMESTER 3: CHEM 1201. SEMESTER 4: RNR 1010/RNR 1071; BIOL 1201. SEMESTER 5: RNR 2101/RNR 2001.

#### BASIC SCHOLASTIC EXPECTATIONS

\* Complete ENGL 1001and one General Education Analytical Reasoning course within the first 30 hours of study.

- \* Maintain a cumulative and LSU GPA of 2.0.
- \* Maintain a minimum 2.0 GPA in the major field.

\* Students entering the program with 30 or more semester hours will take one additional hour of general electives in place of AGRI 1001.

#### Semester 1

#### CRITICAL: MATH 1021.

- AGRI 1001 Introduction to Agriculture (1)
- ENGL 1001 English Composition (3)
- MATH 1021 College Algebra (3)
- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1) or
- BIOL 1207 Honors: Biology Laboratory for Science Majors (1)

- RNR 1010 Introduction to Natural Resource Ecology and Management (4) or
- RNR 1071 HONORS: Introduction to Natural Resource Ecology and Management (4)

#### Semester 2

- CRITICAL: MATH 1431.
- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1) or
- BIOL 1503 Honors: Biology for Science Majors II (4)
- CHEM 1201 General Chemistry I (3) or
- CHEM 1422 HONORS: General Chemistry (3)
- MATH 1431 Calculus with Business and Economic Applications (3) <sup>1</sup>
- General Education course -Humanities (3)
- General Education course -Arts (3)

#### Total Semester Hours: 16

#### Semester 3

CRITICAL: CHEM 1201.

- RNR 2039 Introduction to Renewable Natural Resource Policy (3) or
- RNR 2071 HONORS: Introduction to Renewable Natural Resources Policy (4)
- RNR 2101 Ecology of Renewable Natural Resources (3) or
- RNR 2070 HONORS: Ecology of Renewable Natural Resources (4)
- RNR 2102 Natural Resource Measurements and GIS (3)
- CHEM 1202 General Chemistry (3)
- Free Elective (4)

# Total Semester Hours: 16 Semester 4

CRITICAL: RNR 1010/RNR 1071; BIOL 1201.

- ENGL 2000 English Composition (3)
- SOCL 2001 Introductory Sociology (3) or
- POLI 2051 American Government (3)
- CMST 2060 Public Speaking (3)
- General Education course Humanities (3)

- Area of Concentration Courses (4)<sup>2</sup>
- Free Elective (1)

# Total Semester Hours: 17 Semester 5

CRITICAL: RNR 2101/RNR 2001.

- RNR 4020 Taxonomy and Ecology of Wetland Plants (4) or <sup>3</sup>
- BIOL 4020 Taxonomy and Ecology of Wetland Plants (4) or <sup>3</sup>
- BIOL 4041 Plant Taxonomy (4) <sup>3</sup>
- ECON 2030 Economic Principles (3) or
- POLI 1001 Fundamental Issues of Politics (3) or
- POLI 2053 Introduction to Comparative Politics (3) or
- POLI 2057 Introduction to International Politics (3)
- EXST 2201 Introduction to Statistical Analysis (4)
- Area of concentration courses  $(6)^2$

# Total Semester Hours: 17

### Semester 6

- RNR 2031 Principles of Wildlife Management (3) or
- RNR 2072 HONORS: Principles of Wildlife Management (4) or
- RNR 3105 Forest Biology (2)
- RNR 4025 Limnology (3)
- Area of Concentration Courses (10)<sup>2</sup>
- Free Electives (1-0)

### Total Semester Hours: 16

#### Semester 7

• Area of concentration courses (16)<sup>2</sup>

#### Total Semester Hours: 16 Semester 8

- RNR 4101 Capstone: Natural Resources Management, Policy and Human Dimensions (4)
- Free Electives (11)

### Total Semester Hours: 15

#### 128 Total Sem. Hrs.

<sup>1</sup> - Students may elect to take MATH 1550/MATH 1551in place of MATH 1431.

 <sup>2</sup> - Fisheries and Aquaculture area of concentration courses<sup>3</sup>: **REQUIRED**: CHEM 2060/CHEM 2261/PHYS
 2001, BIOL 2051,RNR 2002, RNR 4022, RNR 4023, RNR 4037, RNR 4040, RNR 4061\*, RNR 4103, RNR 4106, RNR 4107, RNR 4145.

\*Students take 1 hour of RNR 4061.

<sup>3</sup>-Students seeking federal employment following graduation should consult their academic advisor about federal requirements for animal and plant taxonomy courses.

# Forest Enterprise CRITICAL REQUIREMENTS

SEMESTER 1: MATH 1021. SEMESTER 2: MATH 1431. SEMESTER 3: CHEM 1201. SEMESTER 4: RNR 1010/RNR 1071; BIOL 1201. SEMESTER 5: RNR 2101/RNR 2001.

#### BASIC SCHOLASTIC EXPECTATIONS

\*Complete ENGL 1001and one General Education Analytical Reasoning course within the first 30 hours of study.

\*Maintain a cumulative and LSU GPA of 2.0. \*Students entering the program with 30 or more semester hours will take one more elective in place of AGRI 1001.

# Semester 1

CRITICAL: MATH 1021.

- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1) or
- BIOL 1207 Honors: Biology Laboratory for Science Majors (1)
- ENGL 1001 English Composition (3)
- MATH 1021 College Algebra (3)
- RNR 1010 Introduction to Natural Resource Ecology and Management (4) or
- RNR 1071 HONORS: Introduction to Natural Resource Ecology and Management (4)

• AGRI 1001 Introduction to Agriculture (1) Total Semester Hours: 15 Semester 2 CRITICAL: MATH 1431.

- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1) or

- BIOL 1503 Honors: Biology for Science Majors II (4)
- CHEM 1201 General Chemistry I (3) or
- CHEM 1422 HONORS: General Chemistry (3)
- MATH 1431 Calculus with Business and Economic Applications (3)<sup>1</sup>
- General Education course Arts (3)
- General Education course Social Sciences (3)

# Total Semester Hours: 16 Semester 3

CRITICAL:CHEM 1201.

- CHEM 1202 General Chemistry (3)
- AGEC 2003 Introduction to Agricultural Economics (3)
- CMST 2060 Public Speaking (3)
- RNR 2001 Trees and Woody Plants of the Southeast (2)
- RNR 2101 Ecology of Renewable Natural Resources (3) or
- RNR 2070 HONORS: Ecology of Renewable Natural Resources (4)
- Area of concentration courses (2)<sup>2</sup>

# Total Semester Hours: 16

### Semester 4

CRITICAL:RNR 1010/RNR 1071; BIOL 1201.

- RNR 2039 Introduction to Renewable Natural Resource Policy (3) or
- RNR 2071 HONORS: Introduction to Renewable Natural Resources Policy (4)
- EXST 2201 Introduction to Statistical Analysis (4)
- ENGL 2000 English Composition (3)
- Area of concentration courses  $(7)^2$

#### Total Semester Hours: 17

#### Semester 5

#### CRITICAL: RNR 2101/RNR 2001.

- RNR 2102 Natural Resource Measurements and GIS (3)
- Area of concentration courses (7)<sup>2</sup>
- General Education courses Humanities (6)<sup>3</sup>

### Total Semester Hours: 16

#### Semester 6

• Area of concentration courses (13)<sup>2,4</sup>

• Free Electives (4)

### Total Semester Hours: 17 Semester 7

- Area of concentration courses (9)<sup>2</sup>
- Free Electives (6)

### Total Semester Hours: 15 Semester 8

- RNR 4101 Capstone: Natural Resources Management, Policy and Human Dimensions (4)
- RNR 4900 Watershed Hydrology (3)
- Area of concentration courses  $(9)^2$

### Total Semester Hours: 16

#### 128 Total Sem. Hrs.

<sup>1</sup> - Students may take MATH 1550/MATH 1551in place of MATH 1431.

<sup>2</sup> - Forest Enterprise area of concentration courses: ACCT 2001, BLAW 3201, CHEM 1212, MGT 3200, RNR 2003, RNR 2043, RNR 3002, RNR 3034, RNR 3036, RNR 3037, RNR 3040, RNR 3041\*, RNR 3105, RNR 4001, RNR 4036, RNR 4038. \*Must take three different sections of RNR 3041(one credit hour each) or a combination of RNR 3038, RNR 3039, or RNR 3041for a total of three credit hours. RNR 3002and RNR 4001must be completed in the fall before spring courses RNR 3034, RNR 3036, RNR 3037, RNR 3040, RNR 3041and RNR 3105.

Select 12 hours from: AGEC 3003, AGEC 3413, AGEC 4403, AGEC 4443\*\*, FIN 3352, FIN 3353, FIN 3440, or RNR 4107. \*\* A minimum of 9 hours of AGEC must be selected.

<sup>3</sup> – Students interested in professional certification in forestry, participation in required forestry camp courses, or graduate or professional school are advised to take PHIL 2020as one general education humanities course.

<sup>4</sup> – The 6th semester is intended to include the 8 week field camp experience (RNR 3034, RNR 3036, RNR 3037, RNR 3040, RNR 3041) preceded by 8 week on-campus courses (RNR 3103, RNR 3105). Students shall only enroll in 8 week area of concentration and 8 week elective courses during this semester and shall expect to be off campus extended period of time, including overnight trips, during the second 8 weeks.

Forest Resources Management CRITICAL REQUIREMENTS SEMESTER 1: MATH 1021.

SEMESTER 2: MATH 1431. SEMESTER 3: CHEM 1201. SEMESTER 4: RNR 1010/RNR 1071; BIOL 1201. SEMESTER 5: RNR 2101/RNR 2001.

#### BASIC SCHOLASTIC EXPECTATIONS

\*Complete ENGL 1001and one General Education Analytical Reasoning course within the first 30 hours of study.

\*Maintain a cumulative and LSU GPA of 2.0.

\*Students entering the program with 30 or more semester hours will take one more elective in place of AGRI 1001.

### Semester 1

#### CRITICAL: MATH 1021.

- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1) or
- BIOL 1207 Honors: Biology Laboratory for Science Majors (1)
- ENGL 1001 English Composition (3)
- MATH 1021 College Algebra (3)
- RNR 1010 Introduction to Natural Resource Ecology and Management (4) or
- RNR 1071 HONORS: Introduction to Natural Resource Ecology and Management (4)
- AGRI 1001 Introduction to Agriculture (1)

# Total Semester Hours: 15 Semester 2

CRITICAL: MATH 1431.

- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1) or
- BIOL 1503 Honors: Biology for Science Majors II (4)
- CHEM 1201 General Chemistry I (3) or
- CHEM 1422 HONORS: General Chemistry (3)
- MATH 1431 Calculus with Business and Economic Applications (3)
- General Education course Arts (3)
- General Education course Social Sciences (3)

Total Semester Hours: 16

#### Semester 3

CRITICAL: CHEM 1201.

CMST 2060 Public Speaking (3)

- CHEM 1202 General Chemistry (3)
- AGEC 2003 Introduction to Agricultural Economics (3)
- RNR 2001 Trees and Woody Plants of the Southeast (2)
- RNR 2101 Ecology of Renewable Natural Resources (3) or
- RNR 2070 HONORS: Ecology of Renewable Natural Resources (4)
- Area of concentration courses (3)<sup>1</sup>
- Total Semester Hours: 17

### Semester 4

**CRITICAL:**RNR 1010/RNR 1071; BIOL 1201.

- RNR 2039 Introduction to Renewable Natural Resource Policy (3) or
- RNR 2071 HONORS: Introduction to Renewable Natural Resources Policy (4)
- EXST 2201 Introduction to Statistical Analysis (4)
- ENGL 2000 English Composition (3)
- Area of concentration courses (8)<sup>1</sup>

#### **Total Semester Hours: 18**

Semester 5

#### CRITICAL: RNR 2101/RNR 2001.

- RNR 2102 Natural Resource Measurements and GIS (3)
- RNR 3002 Silviculture (2)
- General Education course Humanities (3)
- Area of Concentration Courses (8)<sup>1</sup>

### Total Semester Hours: 16 Semester 6

- Area of Concentration Courses (8)<sup>1,2</sup>
- Free Electives (8)<sup>3</sup>

### Total Semester Hours: 16 Semester 7

• Area of concentration courses (15)<sup>1</sup>

### Total Semester Hours: 15 Semester 8

- RNR 4101 Capstone: Natural Resources Management, Policy and Human Dimensions (4)
- RNR 4900 Watershed Hydrology (3) or
- RNR 4150 Forest Hydrology and Soils (3)

• Free Electives (8)

# Total Semester Hours: 15 128 Total Sem. Hrs.

<sup>1</sup> –Forest Resources Management area of concentration courses: AGRO 2051, CHEM 1212, ENTM 4018/PLHL 4018, PHIL 2020, RNR 2003, RNR 3004,RNR 3034, RNR 3036, RNR 3037, RNR 3040, RNR 3041, RNR 3103, RNR 3105, RNR 3106,RNR 4001, RNR 4032,RNR 4036, RNR 4038. Select fromRNR 4150or RNR 4900. Students must complete fall courses RNR 3002and RNR 4001before 8week spring courses RNR 3034,RNR 3036,RNR 3037,RNR 3040,RNR 3041,RNR 3103, andRNR 3105

<sup>2</sup> –The 6th semester is intended to include the 8 week field camp experience (RNR 3034, RNR 3036, RNR 3037, RNR 3040, RNR 3041) preceded by 8 week on-campus courses (RNR 3103, RNR 3105, RNR 4032). Students shall only enroll in 8 week area of concentration and 8 week elective courses during this semester and shall expect to be off campus extended period of time, including overnight trips, during the second 8 weeks.

# Wetland Science

### **CRITICAL REQUIREMENTS**

SEMESTER 1: MATH 1021. SEMESTER 2: MATH 1431. SEMESTER 3: CHEM 1201. SEMESTER 4: RNR 1010/RNR 1071; BIOL 1201. SEMESTER 5: RNR 2101/RNR 2001.

#### BASIC SCHOLASTIC EXPECTATIONS

\*Complete ENGL 1001and one General Education Analytical Reasoning course within the first 30 hours of study.

\*Maintain a cumulative and LSU GPA of 2.0. \*Students entering the program with 30 or more semester hours will take one more elective in place of AGRI 1001.

# Semester 1

#### CRITICAL: MATH 1021.

- AGRI 1001 Introduction to Agriculture (1)
- ENGL 1001 English Composition (3)
- MATH 1021 College Algebra (3)
- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1) <sup>1</sup>
- RNR 1010 Introduction to Natural Resource Ecology and Management (4) or

• RNR 1071 HONORS: Introduction to Natural Resource Ecology and Management (4)

#### Total Semester Hours: 15 Semester 2 CRITICAL: MATH 1431.

- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1)
- CHEM 1201 General Chemistry I (3)
- MATH 1431 Calculus with Business and Economic Applications (3) <sup>1</sup>
- Free Electives (3)
- General Education course -Arts (3)

#### Total Semester Hours: 16

#### Semester 3

CRITICAL: CHEM 1201.

- RNR 2039 Introduction to Renewable Natural Resource Policy (3) or
- RNR 2071 HONORS: Introduction to Renewable Natural Resources Policy (4)
- RNR 2101 Ecology of Renewable Natural Resources (3) or
- RNR 2070 HONORS: Ecology of Renewable Natural Resources (4)
- RNR 2102 Natural Resource Measurements and GIS (3)
- CHEM 1202 General Chemistry (3)
- Total Semester Hours: 12

# Semester 4

CRITICALRNR 1010/RNR 1071; BIOL 1201.

- ENGL 2000 English Composition (3)
- CMST 2060 Public Speaking (3)
- SOCL 2001 Introductory Sociology (3) or
- POLI 2051 American Government (3)
- Area of Concentration Course (6)<sup>3</sup>
- General Education course Humanities (3)

Total Semester Hours: 18

#### Semester 5

**CRITICAL:** RNR 2101/RNR 2001.

- RNR 2001 Trees and Woody Plants of the Southeast (2) or
- BIOL 4041 Plant Taxonomy (4)

- ECON 2030 Economic Principles (3) or
- POLI 1001 Fundamental Issues of Politics (3) or
- POLI 2053 Introduction to Comparative Politics (3) or
- POLI 2057 Introduction to International Politics (3)
- EXST 2201 Introduction to Statistical Analysis (4)
- Area of Concentration Courses (7-2)<sup>2</sup>
- Free Elective (0-3)

### Total Semester Hours: 16 Semester 6

- RNR 3105 Forest Biology (2)
- AGRO 2051 Soil Science (4)
- Area of Concentration Courses (9)<sup>2</sup>
- General Education course Humanities (3)

#### **Total Semester Hours: 18**

#### Semester 7

• Area of concentration courses (18)<sup>2</sup>

### Total Semester Hours: 18 Semester 8

- RNR 4101 Capstone: Natural Resources Management, Policy and Human Dimensions (4)
- Area of concentration courses (11)<sup>2</sup>

#### Total Semester Hours: 15

#### 128 Total Sem. Hrs.

<sup>1</sup> - Students may elect to take MATH 1550/MATH 1551in place of MATH 1431.

<sup>2</sup> - Wetland Science area of concentration courses: **REQUIRED**: CHEM 2060/CHEM 2261/PHYS
2001/PHIL 1021, OCS 4165, RNR 3002,RNR 3004,RNR
3108, RNR 4013, BIOL 4020/RNR 4020, RNR 4033,RNR
4103, RNR 4107, RNR 4150. Select one course from the following: RNR 4023or RNR 4040. Select one course from OCS 4308, OCS 4465, or OCS 4560; and select one pair of courses from RNR 2031, RNR 3018, and RNR 4011, or RNR 2002and RNR 4023, or RNR 2002and RNR 4040.

# Wildlife Habitat Conservation & Management

#### CRITICAL REQUIREMENTS SEMESTER 1: MATH 1021.

SEMESTER 1: MATH 1021. SEMESTER 2: MATH 1431. SEMESTER 3: CHEM 1201. SEMESTER 4: RNR 1010/RNR 1071; BIOL 1201. SEMESTER 5: RNR 2101/RNR 2001.

#### BASIC SCHOLASTIC EXPECTATIONS

\* Complete ENGL 1001 and one General Education Analytical Reasoning course within the first 30 hours of study.

\* Maintain a cumulative and LSU GPA of 2.0.

\* Students entering the program with 30 or more semester hours will take one additional hour of general electives in place of AGRI 1001.

# Semester 1

#### CRITICAL: MATH 1021

- AGRI 1001 Introduction to Agriculture (1)
- ENGL 1001 English Composition (3)
- MATH 1021 College Algebra (3)
- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1) or
- BIOL 1207 Honors: Biology Laboratory for Science Majors (1)
- RNR 1010 Introduction to Natural Resource Ecology and Management (4) or
- RNR 1071 HONORS: Introduction to Natural Resource Ecology and Management (4)

# Total Semester Hours: 15

### Semester 2

#### CRITICAL: MATH 1431.

- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1) or
- BIOL 1503 Honors: Biology for Science Majors II (4)
- CHEM 1201 General Chemistry I (3) or
- CHEM 1422 HONORS: General Chemistry (3)
- MATH 1431 Calculus with Business and Economic Applications (3) <sup>1</sup>
- General Education course Arts (3)
- General Education course Humanities (3)

#### **Total Semester Hours: 16**

#### Semester 3

CRITICAL: CHEM 1201.

- RNR 2039 Introduction to Renewable Natural Resource Policy (3) or
- RNR 2071 HONORS: Introduction to Renewable Natural Resources Policy (4)

- RNR 2101 Ecology of Renewable Natural Resources (3) or
- RNR 2070 HONORS: Ecology of Renewable Natural Resources (4)
- RNR 2102 Natural Resource Measurements and GIS (3)
- CHEM 1202 General Chemistry (3)
- Free Elective (2)
- Area of concentration courses  $(3)^3$

### Total Semester Hours: 17

#### Semester 4

#### CRITICAL: RNR 1010/RNR 1071; BIOL 1201.

- ENGL 2000 English Composition (3)
- CMST 2060 Public Speaking (3)
- SOCL 2001 Introductory Sociology (3) or
- POLI 1001 Fundamental Issues of Politics (3) or
- POLI 2051 American Government (3) or
- POLI 2053 Introduction to Comparative Politics (3) or
- POLI 2057 Introduction to International Politics (3)
- General Education course Humanities (3)
- Area of Concentration Courses (4)<sup>2</sup>

#### Total Semester Hours: 16

#### Semester 5

#### CRITICAL:RNR 2101/RNR 2001.

- AGEC 2003 Introduction to Agricultural Economics (3)
- RNR 3004 Photogrammetry, GPS and GIS (3)
- EXST 2201 Introduction to Statistical Analysis (4)
- Free Electives (3)
- Area of concentration courses (3)<sup>2</sup>

### Total Semester Hours: 16

#### Semester 6

- Free Elective (1)
- Area of concentration courses  $(14)^{2,3}$

#### Total Semester Hours: 15 Semester 7

- Area of concentration courses (13)<sup>2</sup>
- Free Electives (3)

### Total Semester Hours: 16 Semester 8

- RNR 4101 Capstone: Natural Resources Management, Policy and Human Dimensions (4)
- Area of Concentration Courses (9-11)<sup>2</sup>
- Free Elective (4-2)

#### 128 Total Sem. Hrs.

<sup>1</sup> - Students may elect to take MATH 1550/MATH 1551in place of MATH 1431.

<sup>2</sup> -Wildlife Habitat Conservation & Management area of concentration courses: **REQUIRED**: CHEM 2060/CHEM 2261/PHYS 2001, RNR 2001, RNR 2043, RNR 3002, RNR 3034, RNR 3036, RNR 3040, RNR 3041\*, RNR 3103, RNR 3105, RNR 3018, RNR 4001, RNR 4033, RNR 4036, RNR 4038,RNR 4103, RNR 4107, RNR 4150. Select one course from: RNR 3108orAGRO 2051. Select one course or course from:RNR 3106, RNR 3107,RNR 4032. \* Take one hour ofRNR 3041.

<sup>3</sup> - The 6th semester is intended to include the 8 week field camp experience (RNR 3034, RNR 3036, RNR 3037, RNR 3040, RNR 3041) preceded by 8 week on-campus courses (RNR 3103, RNR 3105). Students shall only enroll in 8 week area of concentration and 8 week elective courses during this semester and shall expect to be off campus extended period of time, including overnight trips, during the second 8 weeks.

# Wildlife Ecology CRITICAL REQUIREMENTS

SEMESTER 1: MATH 1021. SEMESTER 2: MATH 1431. SEMESTER 3: CHEM 1201/CHEM 1422 SEMESTER 4: RNR 1010/RNR 1071; BIOL 1201. SEMESTER 5: RNR 2101/RNR 2001.

#### BASIC SCHOLASTIC EXPECTATIONS

\* Complete ENGL 1001 and one General Education Analytical Reasoning course within the first 30 hours of study.

\* Maintain a cumulative and LSU GPA of 2.0.

\* Students entering the program with 30 or more semester hours will take one additional hour of general electives in place of AGRI 1001.

# Semester 1

CRITICAL:MATH 1021.

- AGRI 1001 Introduction to Agriculture (1)
- ENGL 1001 English Composition (3)
- MATH 1021 College Algebra (3)
- BIOL 1201 Biology for Science Majors I (3)

- BIOL 1208 Biology Laboratory for Science Majors I (1) or
- BIOL 1207 Honors: Biology Laboratory for Science Majors (1)
- RNR 1010 Introduction to Natural Resource Ecology and Management (4) or
- RNR 1071 HONORS: Introduction to Natural Resource Ecology and Management (4)

#### Total Semester Hours: 16 Semester 2 CRITICAL: MATH 1431.

- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1) or
- BIOL 1503 Honors: Biology for Science Majors II (4)
- CHEM 1201 General Chemistry I (3) or
- CHEM 1422 HONORS: General Chemistry (3)
- MATH 1431 Calculus with Business and Economic Applications (3) <sup>1</sup>
- General Education course Humanities (3)
- General Education course Arts (3)

### Total Semester Hours: 16

#### Semester 3

#### CRITICAL: CHEM 1201/CHEM 1422

- RNR 2039 Introduction to Renewable Natural Resource Policy (3) or
- RNR 2071 HONORS: Introduction to Renewable Natural Resources Policy (4)
- RNR 2101 Ecology of Renewable Natural Resources (3) or
- RNR 2070 HONORS: Ecology of Renewable Natural Resources (4)
- RNR 2102 Natural Resource Measurements and GIS (3)
- CHEM 1202 General Chemistry (3)
- Free Elective (3)
- General Education course Humanities (3)

### Total Semester Hours: 18

#### Semester 4

**CRITICAL :** RNR 1010/RNR 1071; BIOL 1201.

- ENGL 2000 English Composition (3)
- CMST 2060 Public Speaking (3)
- SOCL 2001 Introductory Sociology (3) or
- POLI 2051 American Government (3)
- Area of concentration courses (6)<sup>2</sup>

#### Semester 5

**CRITICAL:** RNR 2101/RNR 2001.

- RNR 2001 Trees and Woody Plants of the Southeast (2) <sup>3</sup> or
- RNR 4020 Taxonomy and Ecology of Wetland Plants (4) <sup>3</sup> or
- BIOL 4020 Taxonomy and Ecology of Wetland Plants (4) <sup>3</sup> or
- BIOL 4041 Plant Taxonomy (4) <sup>3</sup>
- ECON 2030 Economic Principles (3) or
- POLI 1001 Fundamental Issues of Politics (3) or
- POLI 2053 Introduction to Comparative Politics (3) or
- POLI 2057 Introduction to International Politics (3)
- EXST 2201 Introduction to Statistical Analysis (4)
- Free Electives (2-0)
- Area of concentration courses  $(5)^2$

#### **Total Semester Hours: 16**

#### Semester 6

- RNR 3105 Forest Biology (2)
- RNR 3004 Photogrammetry, GPS and GIS (3)
- Area of Concentration Courses (11)<sup>2</sup>

#### **Total Semester Hours: 16**

#### Semester 7

• Area of concentration courses  $(16)^2$ 

#### Total Semester Hours: 16 Semester 8

- RNR 4101 Capstone: Natural Resources Management, Policy and Human Dimensions (4)
- Area of Concentration Courses (5)<sup>2</sup>
- Free Electives (7)

### Total Semester Hours: 16

#### 128 Total Sem. Hrs.

<sup>1</sup> - Students may elect to take MATH 1550/MATH 1551in place of MATH 1431.

<sup>2</sup> - Wildlife Ecology area of concentration courses: **REQUIRED**: CHEM 2060/CHEM 2261/PHYS 2001,
RNR 2031/RNR 2072, RNR 3005,RNR 3018,RNR
4011,RNR 4103, RNR 4107, RNR 4913,BIOL 4015/RNR
4015. Select one course from: RNR 4023or RNR 4040.
Select eight hoursfrom<sup>3</sup>:BIOL 4141, BIOL 4142, BIOL
4146,ENTM 4002,ENTM 4005,ENTM 4040,RNR
4012,RNR 4013, RNR 4016,RNR 4037,RNR 4064,RNR
4110,OCS 4012.

<sup>4</sup>- Students seeking federal employment following graduation should consult their academic advisor about federal requirements for animal and plant taxonomy courses.

## Pre-veterinary Medicine - Wildlife & Fisheries CRITICAL REOUIREMENTS

SEMESTER 1: MATH 1021. SEMESTER 2: CHEM 1201/CHEM 1422 SEMESTER 3:MATH 1550. SEMESTER 4: RNR 1010/RNR 1071; BIOL 1201. SEMESTER 5: RNR 2101/RNR 2001.

# Semester 1

### CRITICAL: MATH 1021.

- AGRI 1001 Introduction to Agriculture (1)
- ENGL 1001 English Composition (3)
- MATH 1021 College Algebra (3)
- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1) or
- BIOL 1207 Honors: Biology Laboratory for Science Majors (1)
- RNR 1010 Introduction to Natural Resource Ecology and Management (4) or
- RNR 1071 HONORS: Introduction to Natural Resource Ecology and Management (4)

#### Total Semester Hours: 15

#### Semester 2

#### CRITICAL: CHEM 1201/CHEM 1422

- BIOL 1202 Biology for Science Majors II (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- General Education course Arts (3)

- General Education course Humanities (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1) or
- BIOL 1503 Honors: Biology for Science Majors II (4)
- CHEM 1201 General Chemistry I (3) or
- CHEM 1422 HONORS: General Chemistry (3)

#### Semester 3

CRITICAL:MATH 1550

- CHEM 1202 General Chemistry (3) or
- CHEM 1422 HONORS: General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2) or
- CHEM 1431 HONORS: General Chemistry Laboratory (2)
- PHYS 2001 General Physics I (3)
- RNR 2001 Trees and Woody Plants of the Southeast (2) or
- RNR 4020 Taxonomy and Ecology of Wetland Plants (4) or
- BIOL 4041 Plant Taxonomy (4)
- RNR 2101 Ecology of Renewable Natural Resources (3) or
- RNR 2070 HONORS: Ecology of Renewable Natural Resources (4)
- RNR 2102 Natural Resource Measurements and GIS (3)

# Total Semester Hours: 16-18 Semester 4

CRITICAL: RNR 1010/RNR 1071; BIOL 1201.

- ENGL 2000 English Composition (3)
- CMST 2060 Public Speaking (3)
- RNR 2031 Principles of Wildlife Management (3) or
- RNR 2072 HONORS: Principles of Wildlife Management (4)
- PHYS 2002 General Physics II (3)
- SOCL 2001 Introductory Sociology (3) or
- POLI 2051 American Government (3)

• General Education course - Humanities (3)

Total Semester Hours: 18 Semester 5 APPLICATIONS FOR LSU SCHOOL OF VETERINARY MEDICINE ARE DUE DURING THE 5<sup>TH</sup> SEMESTER. STUDENTS NOT MEETING RECOMMENDED ELIGIBILITY GUIDELINES SHOULD SEE THEIR ACADEMIC ADVISOR TO SELECT A 4-YEAR CURRICULUM.

#### CRITICAL: RNR 2101/RNR 2001.

- CHEM 2060 Survey of Organic Chemistry (3) or
- CHEM 2261 Organic Chemistry (3)
- ECON 2030 Economic Principles (3) or
- POLI 1001 Fundamental Issues of Politics (3) or
- POLI 2051 American Government (3) or
- POLI 2053 Introduction to Comparative Politics (3) or
- POLI 2057 Introduction to International Politics (3)
- EXST 2201 Introduction to Statistical Analysis (4)
- BIOL 2051 General Microbiology (4)

# Total Semester Hours: 14

Semester 6 STUDENTS ACCEPTED TO THE LSU SCHOOL OF

VETERINARY MEDICINE FOLLOWING THE 6<sup>TH</sup> SEMESTER WILL COMPLETE SEMESTERS 7 AND 8 AT THE LSU SCHOOL OF VETERINARY MEDICINE.

STUDENTS NOT ACCEPTED TO THE LSU SCHOOL OF VETERINARY MEDICINE MUST LEAVE THE PRE-VETERINARY MEDICINE AREA OF CONCENTRATUON AND MUST SELECT A 4-YEAR CURRICULUM.

- RNR 4103 Conservation Genetics (3)
- RNR 3105 Forest Biology (2)
- RNR 3004 Photogrammetry, GPS and GIS (3)
- BIOL 2083 The Elements of Biochemistry (3) or
- BIOL 4087 Basic Biochemistry (4)
- RNR 3018 Ecology and Management of Southeastern Wildlife (4)

Total Semester Hours: 15-16 140 Total Sem. Hrs. <sup>1</sup> - Calculus is required by many graduate schools.

\*Students entering the program with 30 or more semester hours will take one additional hour of approved electives in place of AGRI 1001.

#### **Aquaculture Minor**

This minor is open to all majors and areas of concentration except the natural resource ecology and management *fisheries and aquaculture* area of concentration.

To graduate with a minor in aquaculture (20-22 hrs.), students must complete the following: required courses (13 hrs.)–RNR 2002, RNR 4022, RNR 4025, and RNR 4037; *fisheries*–4-5 hours selected from the following course or course pairs: RNR 4023 and RNR 4106, RNR 4040 and RNR 4106, or RNR 4145; *plant taxonomy and ecology*–select one from: RNR 4020/BIOL 4020 or OCS 4308/BIOL 4308.

#### **Fisheries Minor**

This minor is open to all majors and areas of concentration except the natural resource ecology and management *fisheries and aquaculture* area of concentration.

To graduate with a *minor in fisheries* (24-25 hrs.), students must complete the following courses: *fisheries*– RNR 2002, RNR 4023, RNR 4025, RNR 4037, RNR 4040, RNR 4106, and RNR 4145; *plant taxonomy and ecology*–select one from RNR 4020/BIOL 4020 or OCS 4308/BIOL 4308.

#### **Forestry Minor**

This minor is open to all majors and areas of concentration except natural resource ecology and management areas of concentration in *forest enterprise*, *forest resource management*, and *wildlife habitat conservation and management*.

To graduate with a *minor in forestry*, students must complete the following: *forest biology*–RNR 2001, RNR 2003, RNR 2101; *silviculture*–RNR 3002, RNR 4001; *measurements*–RNR 2102, RNR 3103; *forestry electives*–select five hours from ENTM 4018/PLHL 4018; RNR 3105, RNR 4032, RNR 4033, RNR 4036, or RNR 4038.

#### Wildlife Ecology Minor

This minor is open to all majors and areas of concentration except the natural resource ecology and management *conservation biology* and *wildlife ecology* areas of concentration.

To graduate with a minor in wildlife ecology (19-21 hrs.), students must complete the following:

(1) required courses-RNR 2101, RNR 2031, RNR 2039;

(2) area courses-one course selected from the following: RNR 2102, RNR 3004, RNR 4011, RNR 4103, or RNR 4107;

(3) *plant taxonomy*-one course or course pair selected from the following: RNR 2001and RNR 2003, RNR 4020; BIOL 4041or BIOL 4055;

(4) animal taxonomy-one course selected from the following: RNR 3018, BIOL 4145or BIOL 4141, BIOL 4142, BIOL 4146.

# **College of Art & Design**

ALKIS TSOLAKIS Dean	
LAKE DOUGLAS Associate Dean of Research and Development	THOMAS SOFRANKO Associate Dean of Undergraduate Programs, Instructional and Student Services
THERESA MOONEY	ERIN G. SCHELL
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# Departments, Schools, and Curricula

- School of Architecture
- School of Art
- School of Interior Design
- Robert Reich School of Landscape Architecture

The college community's core is fundamental practices while recognizing the challenge of creative activity are met by mining the core of traditional disciplines and exploring the interstices between disciplines. The College of Art & Design is a community of engaged students and faculty committed to speculative endeavors in all aspects of the visual arts and design disciplines.

The college recognizes that critical investigations in art and design occur in a context of regional, national, and global concerns. These contexts are meaningful only when referenced to a framework of one's immediate cultural and physical context. The college faculty constructs these frames of reference through general education, discipline specific education, interdisciplinary investigations, creative activities, colloquia, and community outreach.

The college's student and faculty collaborators value inquiry-based learning, encourage a spirit of risk taking, excite an appetite for thinking and making, nurture a capacity to create, and passionately pursue the means to capitalize on the opportunities thereby presented.

As a key component of the arts and cultural community, the college advances the role of the artist/designer in the broader community through distinctive public education and exhibition programs that serve the citizens of Louisiana with an enriched appreciation of culture.

# **Degree Programs**

The following undergraduate programs are offered by the College of Art & Design:

- Architecture, BARCH
- Studio Art, BFA
- Interior Design, BID
- Landscape Architecture, BLA

# Accreditation

The college has nationally accredited degree programs in architecture, art, interior design, and landscape architecture. The School of Architecture offers both a bachelor of architecture and a master of architecture accredited by the National Architectural Accrediting Board (NAAB). The School of Art's seven areas of concentration are accredited by the National Association of Schools of Art and Design (NASAD). The School of Art offers a Bachelor of Fine Art, a Master of Fine Art, and a Master of Art in Art History. The School of Interior Design offers a Bachelor of Interior Design degree that is accredited by the Council of

Interior Design Accreditation (CIDA). The Robert Reich School of Landscape Architecture offers both a Bachelor of Landscape Architecture and a Master of Landscape Architecture accredited by the Landscape Architecture Accreditation Board (LAAB).

# **Admission Requirements**

Entering freshmen who meet the university's admissions standards and have a declared major in the College of Art & Design will be directly admitted to the College of Art & Design.

Units within the College of Art & Design have selective admission and retention policies that apply to degree programs in architecture, interior design, landscape architecture, and studio art. Students planning to apply to one of these programs should carefully review this catalog for special requirements and application deadlines. Entering freshmen admitted to the college but not to a specific program due to selective admissions will be advised on what courses to take to be competitive for future selective admissions. For students not admitted as freshmen, general requirements for entering the college are as follows:

*From University College, other division of LSU, or by transfer from another college or institution* • Students must have earned a minimum of 24 semester hours, with a 2.00 cumulative GPA, and they must be admitted to an Art & Design degree program.

Students transferring from another institution must also meet university transfer admission requirements.

Applicants will be required to submit a portfolio for admission to some degree programs. The extent to which transfer credits acceptable for admission to the university fulfill degree requirements will be determined by the college.

#### Readmission

Students who were not registered at LSU for the preceding regular semester must file a formal application for readmission.

# **Degree Requirements of the College**

It is the student's responsibility to qualify for a bachelor's degree by meeting these requirements:

- Complete 39 hours of general education courses as specified in a separate section of this catalog.
- Complete one of the established curricula offered by this college. Any substitutions submitted for the curricula as published must have written approval of the department chair or school director and the dean's office.
- Achieve a minimum GPA of 2.00 on all work taken in the university (all LSU campuses) and on all work taken at other institutions.
- Complete a minimum of 30 semester hours in residence in the college. Distance Learning Programs courses taken in the last 30 hours will not be considered for residence credit.
- Complete the last 30 semester hours while in residence in this college on the LSU campus. Distance Learning Programs courses taken in the last 30 hours will not be considered residence credit without prior approval of the department head and the dean of the college.
- Initiate the graduation check-out procedure with the dean's office during the semester prior to the semester in which the degree is to be awarded.

# **Requirements for a Second Bachelor's Degree**

Second degrees may be awarded at the bachelor's level in architecture, art, interior design, and landscape architecture. The program of study for the second degree must include a minimum of 30 semester hours of work beyond requirements for the first degree, including any degree requirements not previously met.

# **Enrollment in Two Degree Programs**

With the dean's approval, a student may be enrolled in two degree programs concurrently. A student can enroll as a dual registrant using one of the following procedures.

- *Dual Enrollment Within the College of Art & Design*–By completing residence and academic requirements, and earning 30 hours more than the degree requiring the fewer number of hours, a student will earn two separate bachelor's degrees.
- Dual Enrollment in the College of Art & Design and in a Second Academic College–By completing residence and academic requirements for two degree programs and earning 30 hours over the degree requiring the fewer number of hours, a student can earn two bachelor's degrees.

The student must be accepted for admission to both colleges and must adhere to the regulations of both colleges. In addition, the student must declare a home college where registration will be initiated and permanent files will be maintained. It is the student's responsibility, however, to maintain contact with the second college to ensure that satisfactory progress is being made toward that degree.

### **College Probation**

In addition to university requirements, the College of Art & Design has these additional academic requirements:

- Students who fail to earn a minimum 2.00 grade point average for any semester will be placed on college academic probation.
- Students on academic probation for two consecutive semesters will not be permitted to continue their academic program and will be administratively dropped from the College of Art & Design. Students who have been dropped from the college may apply for readmission to the college and their academic program on a probationary basis once a 2.00 semester GPA and a cumulative 2.00 GPA is achieved. (Students should check individual programs for probation, separation, and readmission criteria.)

# **Special Provisions of the College**

The pass-fail grading option is limited to courses that are electives in the degree programs.

# **Distance Learning Programs Credit**

Special restrictions apply to Distance Learning Program (DLP) credit used toward degree credit. Students who wish to have DLP credits accepted by this college must have approval from the dean's office prior to scheduling the courses.

Students registered in the college may enroll in a maximum of 19 semester hours of combined resident and DLP credit during a regular semester. They may enroll in a maximum of 12 semester hours of combined resident and DLP credit during the summer term.

No more than 15 semester hours of DLP credit may be applied toward the degree requirements of the college. No more than six semester hours of DLP credit may be applied to a student's general education requirement.

Students may not be enrolled in DLP credit during the semester they plan to graduate.

# **Graduate Programs**

The Master of Architecture, Master of Fine Arts, Master of Arts in Art History, and Master of Landscape Architecture are offered through the Graduate School. Consult "The Graduate School" section.

# **Minor Field Requirements (Optional)**

Students in the College of Art & Design may pursue a minor field under the following guidelines:

- Earn a minimum of 15-18 semester hours in the minor field. See the individual curricula for specific courses.
- Earn a minimum GPA of 2.00 in the minor field.
- Courses used to satisfy minor requirements may not be taken on a pass-fail basis.

A minor field may be selected from any major field currently offered by the college in which appropriate requirements for a minor have been established.

Minors outside the college can be established, provided that the minor conforms to the guidelines noted above for minors in the college and the minor meets the guidelines established by the department, school, or college concerned.

Students who major in one of the studio art concentrations or students from other colleges may pursue an undergraduate minor in art history, ceramics, digital media AVATAR arts, fine art, painting and drawing, photography, printmaking, or sculpture. Students from other colleges are not restricted from minors offered by the other disciplines within the College of Art & Design. Please check prerequisites for all courses.

# Tau Sigma Delta

Tau Sigma Delta ( $T\Sigma\Delta$ ) was founded in 1913 to recognize excellence in art and design education. It is a scholastic honor society open to students enrolled in accredited degree programs in architecture, landscape architecture, interior design, or art who have a minimum GPA of 3.00 and who rank in the upper 20 percent of the cohort in their discipline. The Alpha Zeta chapter at LSU performs service for the university and for the community at large through the creative work of its members. New members are initiated and honored in the spring semester, and wear identifying  $T\Sigma\Delta$  stoles on their academic gowns at commencement exercises.

# **Undergraduate Career Plan**

Students are encouraged to enrich their studies and prepare for their careers by using the Four Year Career Plan in addition to their academic course of study.

# **School of Architecture**

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 136 Atkinson Hall

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 225-578-6885

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 CURRICULUM:

#### Architecture

The School of Architecture, a member of the Association of Collegiate Schools of Architecture, offers professional degree programs at both the undergraduate and the graduate levels. Preparation for the profession of architecture requires both formal education and practical experience followed by a professional examination and registration.

In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit U. S. professional degree programs in architecture, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be granted an 8-year, 3-year, or 2-year term of accreditation, depending on the extent of its conformance with established educational standards.

Doctor of Architecture and Master of Architecture degree programs may require a pre-professional undergraduate degree in architecture for admission. However, the pre-professional degree is not, by itself, recognized as an accredited degree.

The Louisiana State University School of Architecture offers the following NAAB-accredited degree programs:

- B. Arch. (162 undergraduate credits)
- M. Arch. (non-preprofessional degree + 78 credits)

Next accreditation visit for all programs: 2021

# **Undergraduate Admission Requirements**

Admission to the beginning design course in the NAAB accredited Bachelor of Architecture program (ARCH 1001) is selective and is based on high school academic GPA and ACT or SAT scores. Individuals who believe there are additional factors that should be considered in evaluating their applications are encouraged to contact the School of Architecture in writing and/or schedule an on-campus interview. High school students are strongly encouraged to apply prior to February 15 for admission into the following fall semester.

Students who have been approved for admission will be notified in writing. Students not admitted to the beginning design course will not be allowed to register for architecture courses other than those listed as general education courses.

Transfer students will be considered for admission to the architecture program and the beginning design course on a spaceavailable basis. Admission is competitive. Transfer students are expected to have earned a minimum 2.75 GPA (on a 4-point scale, based on 30 hours or more). The review of transfer students will include a select number of students already enrolled at LSU who have applied to transfer into the architecture program. Transfer students are strongly encouraged to apply prior to February 15 for admission into the following fall semester.

Transfer credit for architecture courses as substitutions for required courses in the school's curriculum will be considered only if these courses have been taken as part of an architecture program accredited by the NAAB. Transfer students desiring credit for design studio courses will also be required to submit a portfolio for faculty evaluation.

# **Admission Requirements to the Second Year**

Following the successful completion of the first year in the program, there will be a review of the student's academic performance, including a portfolio review, prior to admission to the second year of study. The School of Architecture reserves the right to deny admission to any student to the second year of study based on this review.

# **Graduate Program**

Information on the Master of Architecture program, including admissions requirements, is available by contacting the school directly.

# **Personal Computer Requirement**

Students are required to have their own personal computer upon entering the first year studio course. Contact the School of Architecture for information regarding type, specifications, and software.

# "C" Grades and Repetition of Courses

Majors must pass all required courses, all approved electives, ENGL 2000 and MATH 1022 with a grade of "C-" or better. A student who earns less than a "C-" in one of these courses must repeat the course in the next regular semester in which the student is enrolled and the course is offered.

In the architecture curriculum, normal course progress is imperative. A student failing to complete any required course more than one year later than the time designated in the curriculum is prohibited from advancement in the design studio sequence until the deficiency is corrected. All required courses listed through the senior year must be completed before a student is allowed to enroll in the designated fifth-year courses. Courses listed in the curriculum are to be scheduled in the sequence in which they are listed.

### Architecture, B.Arch.

# Architecture

# **CRITICAL REQUIREMENTS**

SEMESTER 1: ARCH 1001. SEMESTER 2: ARCH 1002; MATH 1022. SEMESTER 3: ARCH 2001; ARCH 2003. SEMESTER 4: ARCH 2002; ARCH 2006; PHYS 2001. SEMESTER 5: ARCH 3001; ARCH 3003.

Recommendation: Take Summer School or Intersession classes to reduce semester loads.

Majors must pass all required courses, all approved electives, ENGL 2000 and MATH 1022 with a grade of "C-" or better. A student who earns less than a "C-" in one of these courses must repeat the course in the next regular semester in which the student is enrolled and the course is offered.

In the architecture curriculum, normal course progress is imperative. A student failing to complete any required course more than one year later than the time designated in the curriculum is prohibited from advancement in the design studio sequence until the deficiency is corrected. All required courses listed through the senior year must be completed before a student is allowed to enroll in the designated fifth-year courses. Courses listed below are to be scheduled in the sequence in which they are listed.

Thirty-nine hours of general education courses must be completed as required by the university.

# Semester 1

#### CRITICAL: ARCH 1001.

- ARCH 1001 Architectural Design I (6)
- ARCH 2401 Appreciation of Architecture (3)
- ENGL 1001 English Composition (3)
- General Education course Natural Sciences (3)

#### **Total Semester Hours: 15**

# Semester 2

#### CRITICAL: ARCH 1002; MATH 1022.

- ARCH 1002 Architectural Design II (6) or
- ARCH 1102 Honors: Architectural Design II (6)

- MATH 1022 Plane Trigonometry (3)
- General Education course Social Sciences (3)
- General Education course Natural Sciences (3)<sup>1</sup>

### Total Semester Hours: 15

# Semester 3

#### CRITICAL: ARCH 2001; ARCH 2003.

- ARCH 2001 Architectural Design III (6) or
- ARCH 2101 Honors: Architectural Design III (6)
- ARCH 2003 Architectural Techniques (3)
- ARCH 2007 History of Architecture I (3)
- PHYS 2001 General Physics I (3)
- General Education course Analytical Reasoning (3)

# Total Semester Hours: 18

# Semester 4

**CRITICAL:** ARCH 2002; ARCH 2006; PHYS 2001.

- ARCH 2002 Architectural Design IV (6) or
- ARCH 2102 Honors: Architectural Design IV (6)
- ARCH 2006 Architectural Topics (3)
- ARCH 2008 History of Architecture II (3)
- ENGL 2000 English Composition (3)
- General Education course Social Sciences (3)

Total Semester Hours: 18

# Semester 5

#### CRITICAL: ARCH 3001; ARCH 3003.

- ARCH 3001 Architectural Design V (6) or
- ARCH 3101 Honors: Architectural Design V (6)
- ARCH 3003 Architectural Structures I (3)
- ARCH 3007 Architectural Systems (3)
- General Education course Humanities (3)
- Professional Elective (3)<sup>2</sup>

**Total Semester Hours: 18** 

# Semester 6

- ARCH 3002 Architectural Design VI (6) or
- ARCH 3102 Honors: Architectural Design VI (6)
- ARCH 4007 History of Architecture III (3)
- ARCH 3004 Architectural Structures II (3)
- ARCH 3008 Environmental Control Systems (3)
- Professional Elective (3)<sup>2</sup>

### **Total Semester Hours: 18**

# Semester 7

- ARCH 4001 Architectural Design VII (6) or
- ARCH 4101 Honors: Architectural Design VII (6)
- ARCH 4031 Architectural Structures III (3)
- ARCH 4062 Urban Design and Planning (3)
- Professional Elective (3)<sup>2</sup>

# Total Semester Hours: 15

# Semester 8

- ARCH 4002 Architectural Design VIII (6) or
- ARCH 4102 Honors: Architectural Design VIII (6) or
- ARCH 4202 Architectural Design VIII Off-Campus (6)
- ARCH 5006 Professional Practice (3)
- Professional Elective (3)<sup>2</sup>
- Approved Elective (3)<sup>3</sup>

Total Semester Hours: 15

# Semester 9

- ARCH 5002 Architectural Design Concentration (6) or
- ARCH 5102 Honors: Architectural Design Concentration (6) or
- ARCH 5202 Architectural Design Concentration Off-Campus (6)
- Approved Electives (6)<sup>3</sup>
- Professional Elective (3)<sup>2</sup>

# Total Semester Hours: 15

# Semester 10

- ARCH 5001 Comprehensive Architectural Design (6) or
- ARCH 5101 Honors: Comprehensive Architectural Design (6)
- ARCH 5005 Advanced Architectural Techniques (3)
- Approved Electives (6)<sup>3</sup>

### **Total Semester Hours: 15**

# 162 Total Sem. Hrs.

<sup>1</sup> - For General Education - Natural Sciences, both physical & life sciences must be taken: six hours in a physical/life science sequence; three hours in an area (phys/life) not previously selected. PHYS 2001 (required in the curriculum) is a General Education Natural Sciences course.

<sup>2</sup> - Professional Electives must be selected in consultation with a faculty advisor.

<sup>3</sup> - Approved Electives must be selected in consultation with a faculty advisor.

#### **Architectural History Minor**

To graduate with a *minor in architectural history*, students must complete at least 18 hours of designated courses. To complete the minor, students are required to take ARCH 2401, ARCH 2007, ARCH 2008, ARCH 4007. In addition, to complete the required number of credits, students may select additional courses from the following list: ARCH 4051, ARCH 4440, ARCH 4155, ARCH 4062, ANTH 4440; ARTH 4404, ARTH 4405, ARTH 4406, ARTH 4412, ARTH 4422, LA 2201, LA 3201, ID 4741.

#### **Community Design Minor**

To graduate with a *minor in community design*, students must complete 18 hours of designated courses. Students are required to take ARCH 4062, ARCH 4072, ARCH 4700, ARCH 5008, and one elective selected from ARCH 4041, ARCH 4353, or ARCH 4440.

#### **Heritage Conservation Minor**

To graduate with a *minor in heritage conservation*, students must complete 18 hours of credit chosen from the following courses: ARCH 2401, ARCH 3000, ARCH 2007, ARCH 2008, ARCH 4090, ARCH 4155, and ARCH 4440. Of these, nine hours of credit must be chosen from the following courses: ARCH 4090, ARCH 4155, ARCH 4440.

# **School of Art**

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 225-578-5424

Studio Art

LSU is an accredited institutional member of the National Association of Schools of Art & Design. Through the College of Art & Design, the School of Art offers the professional BFA degree in Studio Art with concentrations in digital art, graphic design, and studio art (with areas of emphasis in Photography (Track A); Printmaking and Book Arts (Track B); Painting and Drawing (Track C); or 3-D: Ceramics and Sculpture (Track D). In addition, students concentrating in these areas may minor in art history, ceramics, painting and drawing, photography, printmaking, sculpture, and visual communications. All studio art classes meet for two class hours per semester hour of credit. Outside of regular class time, students are expected to engage in a minimum of one additional hour of studio work per hour of credit.

Certain courses offered by the school require fees to defray the cost of consumable materials used by students. This information is included in the individual course syllabus.

Enrollment in certain required art courses may be restricted to "majors and minors only" early in the registration process.

Registration for all multiple credit courses taken for more than three credits in a given semester will require prior permission of the instructor.

#### **Personal Computer Requirement**

All students entering the School of Art are required to have their own laptop computer with wireless internet access prior to the first semester of study. Students planning to enter Graphic Design, Digital Arts, or Interior Design may have additional requirements and should refer to laptop specifications for those areas when purchasing a laptop for their first semester. For information regarding the type, specifications, and software for all School of Art students, or to address questions regarding this requirement, please visit 220 Design Building or the School of Art website.

# **Bachelor of Fine Arts Degree**

The Bachelor of Fine Arts degree provides the liberal education and specialized instruction needed for a professional career in the visual arts.

# **Admission Requirements**

Admission into the program for the Bachelor of Fine Arts in Studio Art is a selective two-part process. The first phase occurs when a student who is admitted by the Office of Enrollment Management indicates a preference for studio art, where the primary tools for selecting candidates are high school academic GPA and ACT or SAT scores. However, students who think they would be better represented with an existing portfolio should contact the School of Art office to schedule an on-campus interview. Students who have completed AP art courses with a portfolio score of three or better will be considered for credit toward studio art foundation courses.

Students who are approved for admission into the Foundations Program will be notified in writing. Students who are not approved may choose to pursue a Minor in Fine Art.

The second phase of the admission process takes place upon conclusion of the first year with the completion of: ART 1011, ART 1012, ART 1847, and a course from the student's intended concentration, listed below. Students will submit a portfolio of creative work specified by their prospective area of concentration based on art work produced in the required first-year foundation courses. The remaining foundation courses must be completed in the fourth semester. Students who pass the portfolio review may pursue their concentration and any studio art minor listed in the *LSU General Catalog*.

# **Transfer Students**

Transfer students from other institutions will be considered for admission to the Studio Art program and/or Foundations Program on a space-available basis. The same applies to students already enrolled at LSU who wish to transfer into the Studio Art program. Transfer students are strongly encouraged to apply for admission by February 15 for entry in the fall semester.

Substitution credit for art courses taken elsewhere will be considered if they are equivalent to courses required for the curriculum in Studio Art. Consideration will also be given to courses taken through an art program accredited by NASAD. Additionally, transferring students are expected to submit a portfolio of work completed in relevant courses for evaluation by faculty within the chosen concentration.

# "D" Grades and Repetition of Courses

Studio Art majors must pass all required art and art history courses with a grade of "C" or better. A student who earns a "D" or "F" must retake the course.

Students majoring in Art in the College of Art & Design will select from one of three concentrations: Studio Art, Graphic Design; and Digital Art. Please review the foundation requirements for the intended concentration.

Students pursuing the Studio Art concentration are required to select from the following four tracks:

Photography (Track A);

Printmaking and Book Arts (Track B);

Painting and Drawing (Track C);

or 3D: Ceramics; or Sculpture (Track D).

Specific courses for each track may be found on the School of Art website. Foundation and recommended elective courses must be selected with the advice and approval of the advisor in the School of Art.

Studio Art Foundations (30 Credits) – Foundation courses are comprised of ART 1011, ART 1012, ART 1847, ART 1360, ART 1661 or ART 1662, ART 1762, ART 1848, ART 1849, ART 2050 or ART 2055, ART 2995. Foundation courses must be completed by the end of the fourth semester. Critical course sequence should be selected based on the intended track (see School of Art advisor).

Digital Art and Graphic Design Foundations (24 credits) - Foundation courses are comprised of a total of eight courses (24 credits). Four of these courses are required for all students in the School of Art: ART 1011, ART 1012, ART 1360, and ART 1847. Another four courses should be selected from the following, with the student's future concentration in mind: ART 1661, ART 1762, ART 1848<sup>1+2</sup>, ART 1849, ART 2050<sup>1+2</sup>, ART 2655, ART 2995<sup>1+2</sup>. Please find course descriptions in the *General Catalog* under \*\*COURSE SEARCH\*\* – ART; and review the degree path for each concentration you are considering.

1 – Required for the graphic design concentration

2 – Required for the digital art concentration.

Studio Art Electives (6-9 credits):

Art History Requirements (15 credits) – Three credits of ARTH 2470, six credits from ARTH 1440 or ARTH 1441 or 2000 level, and six credit hours above 4000-level.

General Electives (3 credits)

*General Education Requirements* – See "Degree Requirements of the College". Thirty-nine hours of general education courses must be completed as required by the university.

# Art Curricula Outside the School of Art

Other undergraduate degree programs in art are offered by academic divisions outside the College of Art & Design. The College of Humanities & Social Sciences offers a *Bachelor of Arts in Liberal Arts degree with a concentration in art history*. General requirements for this degree may be found in the sections, "Degree Requirements of the College," and "Liberal Arts," in the "College of Humanities & Social Sciences" section of this catalog.

Students interested in pursuing this degree should confer with a counselor in the School of Art and the College of Humanities & Social Sciences. The art history area offers a wide range of courses in all major historical eras. Students graduating from the program are prepared to continue their education in graduate school or to enter a variety of related fields without additional training beyond the college level.

### Studio Art, B.F.A.

# Areas of Concentration

Students majoring in Studio Art in the College of Art & Design are required to select from the following four tracks within the Studio Art concentration:

Photography (Track A);

Printmaking and Book Arts (Track B);

Painting and Drawing (Track C);

or 3D: Ceramics; or Sculpture (Track D).

Specific courses for each track may be found on the School of Art website. Foundation and recommended elective courses must be selected with the advice and approval of the advisor in the School of Art.

# **Digital Art**

#### **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ART 1011/ART 1008; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 2: "C" or better in ART 1847/ART 1010; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 3: "C" or better in ART 2050; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 4: "C" or better in ART 2220; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 5: "C" or better in ART 2230; 2.0 Cumulative, LSU and Semester GPA.

Recommend taking Summer internship (ART 4280 Digital Art Practicum) to reduce semester loads.

Studio Art Foundations (24 Credits) – For the Digital Art and Graphic Design concentrations, foundation courses are comprised of a total of eight courses (24 credits). Six of these courses are required: ART 1011, ART 1012, ART 1360, ART 1847, ART 1848, ART 2050, and ART 2995. An additional course is selected from the following: ART 1661, ART 1762, and ART 1849.

**Approved Path Electives (9 credits)** - Students must choose one of the paths available and complete 9 credits from the courses listed. Elective path choices and course options are available on the School of Art Website or from an academic advisor in the College of Art and Design. **Approved Electives (3 credits) -** A list of approved electives can be obtained from the School of Art website or from an academic counselor.

*Art History Requirements (12 credits)* - Three credits of ARTH 1440 or ARTH 1441, ARTH 2470, and ARTH 1440 or ARTH 1441 or 2000 level or above, and three credit hours above 4000.

#### General Electives (3 credits)

*General Education Requirements* – Thirty-nine hours of general education courses must be completed as required by the university.

#### Semester 1

**CRITICAL:** "C" or better in ART 1011/ART 1008; 2.0 Cumulative, LSU and Semester GPA.

- ART 1011 Two-Dimensional Design (3)
- ART 1012 Three-Dimensional Design (3)
- ART 1847 Drawing and Composition (3)
- ARTH 1440 Historical Survey of the Arts (3) or
- ARTH 1441 Historical Survey of the Arts (3)
- ENGL 1001 English Composition (3)

#### **Total Semester Hours: 15**

#### Semester 2

**CRITICAL:** "C" or better in ART 1847/ART 1010; 2.0 Cumulative, LSU and Semester GPA.

- ART 1360 Introduction to Printmaking (3)
- ART 1848 Beginning Figure Drawing (3)
- ART 2050 Digital Art I (3)
- ARTH 2470 Survey of Modern to Contemporary Art (3)
- General Education Course Analytical Reasoning (from Mathematics Department) (3)

#### Total Semester Hours: 15

#### Semester 3

**CRITICAL:** "C" or better in ART 2050; 2.0 Cumulative, LSU and Semester GPA.

- ART 2210 Creative Coding (3)
- ART 2220 Moving Image (3)
- ART 2995 Basic Photography (3)

- ARTH 1440 or ARTH 1441 or Art History course (2000-level or above) (3)
- General Education course Analytical Reasoning (3)

#### Semester 4

**CRITICAL:** "C" or better in ART 2220; 2.0 Cumulative, LSU and Semester GPA.

- ART 2230 Virtual Space (3)
- ART 2551 Typography for Visual Communications (3)
- ENGL 2000 English Composition (3)
- General Education course Social Sciences (3)
- ART 1661 Introduction to Ceramics: Handbuilding (3) or
- ART 1762 Introduction to Sculpture (3) or
- ART 1849 Introduction to Painting (3)

#### **Total Semester Hours: 15**

#### Semester 5

**CRITICAL:** "C" or better in ART 2230; 2.0 Cumulative, LSU and Semester GPA.

- ART 4230 Virtual Space and Motion (3)
- ART 2360 Intermediate Printmaking (3)
- Art History Course (4000-level) (3)
- Approved Path Elective
- General Education course Natural Sciences (3)

#### **Total Semester Hours: 15**

#### Semester 6

- ART 4220 Advanced Moving Image (3)
- Approved Path Elective (3)
- General Education Course Humanities (3)
- General Education Course Natural Sciences Sequence (3)
- ART 2392 Digital Printmaking (3) or
- ART 3996 Digital Color Photography I (3)

### Total Semester Hours: 15

#### Semester 7

- ART 4240 Topics in Digital Art (3)
- ART 4270 Digital Art Studio (3)
- Approved Elective (3)
- General Education Course Humanities (3)
- General Education Course Natural Sciences (3)

#### **Total Semester Hours: 15**

#### Semester 8

- ART 4290 Digital Art Synthesis (3)
- Approved Path Elective (3)
- General Elective (3)
- General Education course Humanities (3)
- General Education Course Social Sciences (2000-level) (3)

#### **Total Semester Hours: 15**

### 120 Total Sem. Hrs.

<sup>1</sup> - For General Education Natural Sciences, both physical & life sciences must be taken: six hours in a physical/life science sequence; three hours in an area (phys/life) not previously selected.

# Graphic Design

#### **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ART 1011/ART 1008 and ART 1847/ART 1010; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 2: "C" or better in ART 1012/ART 1009 and ART 2050/ART 1848; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 3: "C" or better in ART 2544 and ART 2564; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 4: "C" or better in ART 2554 and ART 2552; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 5: "C" or better in ART 4527; 2.0 Cumulative, LSU and Semester GPA.

Recommend taking Summer Term or Intersession classes to reduce semester loads.

Studio Art Foundations (24 Credits) – For the Digital Art and Graphic Design concentrations, foundation courses are comprised of a total of eight courses (24 credits). Four of these courses are required for all students in the School of Art: ART 1011, ART 1012, ART 1360, and ART 1847. Another four courses should be selected from the following, with the student's future concentration in mind: ART 1661, ART 1762, ART 1848<sup>1+2</sup>, ART 1849, ART 2050<sup>1+2</sup>, ART 2655, ART 2995<sup>1+2</sup>. Please find course descriptions in the *General Catalog* under \*\*COURSE SEARCH\*\* – ART; and review the degree path for each concentration you are considering.

- 1-Required for the graphic design concentration
- 2 Required for the digital art concentration.

#### Studio Art Electives (6-9 credits):

Art History Requirements (15 credits) – Three credits of ARTH 1440 or ARTH 1441, ARTH 2470, and ARTH 1440 or ARTH 1441 or 2000 level or above, and six credit hours above 4000.

#### General Electives (3 credits)

*General Education Requirements* – Thirty-nine hours of general education courses must be completed as required by the university.

#### Semester 1

**CRITICAL:** "C" or better in ART 1011/ART 1008 and ART 1847/ART 1010; 2.0 Cumulative, LSU and Semester GPA.

- ART 1011 Two-Dimensional Design (3)
- ART 1012 Three-Dimensional Design (3)
- ART 1847 Drawing and Composition (3)
- ARTH 1440 Historical Survey of the Arts (3) or
- ARTH 1441 Historical Survey of the Arts (3)
- ENGL 1001 English Composition (3)

#### Total Semester Hours: 15

#### Semester 2

**CRITICAL:** "C" or better in ART 1012/ART 1009 and ART 2050/ART 1848; 2.0 Cumulative, LSU and Semester GPA.

Studio Art Foundation course: (choose one)

- ART 1661 Introduction to Ceramics: Handbuilding (3)
- ART 1849 Introduction to Painting (3)
- ART 1762 Introduction to Sculpture (3)
- ART 1848 Beginning Figure Drawing (3)
- ART 2050 Digital Art I (3)

- ARTH 2470 Survey of Modern to Contemporary Art (3)
- General Education Course Analytical Reasoning (from Mathematics Department) (3)

#### **Total Semester Hours: 15**

#### Semester 3

**CRITICAL:** "C" or better in ART 2544 and ART 2564; 2.0 Cumulative, LSU and Semester GPA.

- ART 2544 Letter Forms (3) or
- ART 2545 Honors: Letter Forms (3)
- ART 2564 Graphic Abstraction (3)
- ART 2995 Basic Photography (3)
- General Education course Analytical Reasoning (3)
- ARTH 1440 or ARTH 1441 or Art History course (2000-level or above) (3)

#### **Total Semester Hours: 15**

#### Semester 4

**CRITICAL:** "C" or better in ART 2554 and ART 2552; 2.0 Cumulative, LSU and Semester GPA.

- ART 2552 Color Design (3)
- ART 2554 Graphic Design I (3) or
- ART 2555 Honors: Graphic Design I (3)
- ENGL 2000 English Composition (3)
- ART 1360 Introduction to Printmaking (3)
- General Education course Social Sciences (3)

#### **Total Semester Hours: 15**

#### Semester 5

**CRITICAL:** "C" or better in ART 4527; 2.0 Cumulative, LSU and Semester GPA.

- ART 4526 Prepress Production Techniques (3)
- ART 4527 Applied Typography (3)
- Art History course (4000-level) (3)
- General Education course Humanities (3)
- General Education course Natural Sciences sequence (3)<sup>1</sup>

### Semester 6

- ART 4551 Graphic Design II (3)
- ART 4553 Digital Imaging Techniques (3)
- Studio Art Elective (3)
- General Education course Natural Sciences sequence (3)<sup>1</sup>
- General Education course Social Sciences (2000-level) (3)

### **Total Semester Hours: 15**

#### Semester 7

- ART 4555 Graphic Design III (3) or
- ART 4564 Senior Graphic Design (3)
- ART 4567 Interactive Multimedia Design (3)
- Studio Art Elective (3)
- General Education course Humanities (3)
- General Education course Natural Sciences (3)<sup>1</sup>

### **Total Semester Hours: 15**

#### Semester 8

- ART 4555 Graphic Design III (3) or
- ART 4564 Senior Graphic Design (3)
- Studio Art Elective (3)
- General Education course Humanities (3)
- General Elective (3)
- Art History Course (4000-level) (3)

### Total Semester Hours: 15

### 120 Total Sem. Hrs.

<sup>1</sup> - For General Education Natural Sciences, both physical & life sciences must be taken: six hours in a physical/life science sequence; three hours in an area (phys/life) not previously selected.

# Studio Art

### **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ART 1011/ART 1008 and ART 1847/ART 1010; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 2: "C" or better in any three courses selected from the following foundation sequence: ART 1360, ART 1661 or ART 1662, ART 1762, ART 1848, ART 1849, ART 2050 or ART 2055, ART 2995; 2.0 cumulative, LSU and semester GPA.

SEMESTER 3: "C" or better in any two courses not already selected from the following foundation sequence: ART 1360, ART 1661 or ART 1662, ART 1762, ART 1848, ART 1849, ART 2050 or ART 2055, ART 2995; 2.0 cumulative, LSU and semester GPA. SEMESTER 4: "C" or better in any two courses not already selected from the following foundation sequence: ART 1360, ART 1661 or ART 1662, ART 1762, ART 1848, ART 1849, ART 2050 or ART 2055, ART 2995; 2.0 cumulative, LSU and semester GPA. SEMESTER 5: "C" or better in ENGL 2000; 2.0 Cumulative, LSU and Semester GPA.

Recommend taking Summer Term or Intersession classes to reduce semester loads.

*Studio Art Foundations (30 Credits)* – For the Studio Art concentration, foundation courses are comprised of ART 1011, ART 1012, ART 1847, ART 1360, ART 1661 or ART 1662, ART 1762, ART 1848, ART 1849, ART 2050 or ART 2055, ART 2995. Foundation courses must be completed by the end of the fourth semester. Critical course sequence should be selected based on the intended track (see School of Art advisor).

#### Studio Art Electives (6-9 credits):

*Art History Requirements (15 credits)* – Three credits of ARTH 1440 or ARTH 1441, ARTH 2470, and ARTH 1440 or ARTH 1441 or 2000 level or above, and six credit hours above 4000.

#### General Electives (3 credits)

*General Education Requirements* – Thirty-nine hours of general education courses must be completed as required by the university.

#### Semester 1

**CRITICAL:** "C" or better in ART 1011/ART 1008 and ART 1847/ART 1010; 2.0 Cumulative, LSU and Semester GPA.

- ART 1011 Two-Dimensional Design (3)
- ART 1012 Three-Dimensional Design (3)
- ART 1847 Drawing and Composition (3)
- ARTH 1440 Historical Survey of the Arts (3) or
- ARTH 1441 Historical Survey of the Arts (3)
- ENGL 1001 English Composition (3)

### Semester 2

**CRITICAL:** "C" or better in any three courses selected from the following foundation sequence: ART 1360, ART 1661 or ART 1662, ART 1762, ART 1848, ART 1849, ART 2050 or ART 2055, ART 2995; 2.0 cumulative, LSU and semester GPA.

- ARTH 2470 Survey of Modern to Contemporary Art (3)
- General Education Course Analytical Reasoning (from Mathematics Department) (3)
- First, Second, and Third Course in Foundation Sequence From: ART 1360, ART 1661 or ART 1662, ART 1762, ART 1848, ART 1849, ART 2050 or ART 2055, ART 2995 (9)

### Total Semester Hours: 15

### Semester 3

**CRITICAL:** "C" or better in any two courses not already selected from the following foundation sequence: ART 1360, ART 1661 or ART 1662, ART 1762, ART 1848, ART 1849, ART 2050 or ART 2055, ART 2995; 2.0 cumulative, LSU and semester GPA.

- Fourth and Fifth Course in Foundation Sequence From ART 1360, ART 1661 or ART 1662, ART 1762, ART 1848, ART 1849, ART 2050 or ART 2055, ART 2995 (6)
- ARTH 1440 or ARTH 1441 or Art History Course (2000-level or above) (3)
- General Education Course Analytical Reasoning (3)
- Studio Art Concentration (Track A, B, C, or D) (3)

### Total Semester Hours: 15

### Semester 4

**CRITICAL:** "C" or better in any two courses not already selected from the following foundation sequence: ART 1360, ART 1661 or ART 1662, ART 1762, ART 1848, ART 1849, ART 2050 or ART 2055, ART 2995; 2.0 cumulative, LSU and semester GPA.

- Sixth and Seventh Course in Foundation Sequence From: ART 1360, ART 1661 or ART 1662, ART 1762, ART 1848, ART 1849, ART 2050 or ART 2055, ART 2995 (6)
- Art History Course (4000-level) (3)
- General Education Course Humanities (3)
- Studio Art Concentration (Track A, B, C, or D) (3)

### Total Semester Hours: 15

### Semester 5

**CRITICAL:** "C" or better in ENGL 2000; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 2000 English Composition (3)
- Studio Art Concentration (Track A, B, C, or D) (6)
- Studio Art Elective (3)
- General Education Course Natural Sciences Sequence (3)<sup>1</sup>

# Total Semester Hours: 15

### Semester 6

- Studio Art Concentration (Track A, B, C, or D) (6-3)
- Art History Course (4000-level) (3)
- General Education Course Natural Sciences Sequence (3)<sup>1</sup>
- Studio Art Elective (0-3)
- General Education Course Social Sciences (3)

### Total Semester Hours: 15

### Semester 7

- Studio Art Concentration (Track A, B, C, or D) (6)
- Studio Art Elective (0-3)
- General Education Course Humanities (3)
- General Education Course Natural Sciences (3)<sup>1</sup>
- General Elective (3-0)

### Total Semester Hours: 15

### Semester 8

- Studio Art Concentration (Track A, B, C, or D) (6-0)
- Studio Art Elective (0-6)
- General Education Course Humanities (3)
- General Education Course Social Sciences (2000-level) (3)
- General Elective (3)

### **Total Semester Hours: 15**

### 120 Total Sem. Hrs.

<sup>1</sup> - For General Education Natural Sciences, both physical & life sciences must be taken: six hours in a physical/life science sequence; three hours in an area (phys/life) not previously selected.

#### **Ceramics Minor**

To graduate with a *minor in ceramics*, students must complete ART 1661, ART 1662, ART 2661 (repeated for six hours of credit), and six semester hours of ceramics courses at the 4000-level.

#### **Digital Media AVATAR Arts Minor**

To earn a *digital media AVATAR arts minor*, a student must complete 21 credit hours of coursework. These must include: CSC 1253 or CSC 1350; one course from ART 1001, ART 1011, ARTH 2470, MUS 1751, MUS 1799, ENGL 2009; nine credit hours of approved arts electives; three credit hours of approved engineering and/or science electives; and the three credit hour Art AVATAR capstone course, ART 4059.

#### **Fine Art Minor**

To graduate with a *minor in fine art*, students must complete ART 1001, ART 1008<sup>1</sup>, ART 1009<sup>2</sup>, ART 1010<sup>3</sup>; ARTH 1440 or ARTH 1441; and two of the following courses: ART 1360, ART 1551, ART 1661, ART 1762, ART 1848, ART 1849, ART 2050, ART 2655 and ART 2995.

<sup>1</sup>ART 1008 is a prerequisite for ART 1551, ART 2050, and ART 2995. <sup>2</sup>ART 1009 is a prerequisite for ART 1661 and ART 1762. <sup>3</sup>ART 1010 is a prerequisite for ART 1848.

Note: Additional prerequisites may be required for the above courses. Please refer to the list of course descriptions in the "\*\*COURSE SEARCH\*\*" section to determine the proper sequence in which these courses must be completed.

#### **Painting and Drawing Minor**

To graduate with a *minor in painting and drawing*, students must complete ART 2879, ART 2881, ART 4880, ART 4881, ART 4889; and three credit hours from: ART 4882, ART 4884 or ART 4886.

#### **Photography Minor**

To graduate with a minor in photography, students must complete ART 2995, ART 2996, ART 3994, ART 3996, ART 4941, and three credit hours from: ART 4994, ART 4996, or ART 4997.

#### **Printmaking Minor**

To graduate with a *minor in printmaking*, students must complete ART 1360 and ART 2360, three additional credit hours of printmaking at the 2000 level, ART 4360 and six additional credit hours of printmaking courses at the 4000 level.

#### **Sculpture Minor**

To graduate with a minor in sculpture, students must complete ART 2761 and ART 4761 (repeated for nine credit hours each).

#### **Visual Communications Minor**

(only for students enrolled in the School of Mass Communication)

To graduate with a *minor in visual communications*, students must complete ART 1008, ART 1010, ART 2050, ART 2551, ART 4561, and three credit hours from: ART 1551, ART 2210, ART 2220, ART 2995, ART 2554, or ART 4020. Laptop computer required. Continuation in the visual communications minor is subject to portfolio review of work from ART 1008 and ART 1010.

# **School of Interior Design**

OFFICE 402 Design Building TELEPHONE 225-578-8422 FAX 225-578-8457 CURRICULUM:

#### • Interior Design

# **Bachelor of Interior Design Degree**

The Bachelor of Interior Design curriculum at LSU is accredited by the Council for Interior Design Accreditation (CIDA, formerly FIDER).

Interior Design involves shaping, planning, and furnishing interior spaces ranging in scale from single family residences to large commercial and institutional projects. Designers work with architects, developers, and private clients to create distinctive spaces that enhance the quality of life, increase productivity, and protect the health, safety, and welfare of the public. Opportunity exists within the profession to specialize in lighting, furniture and exhibition design, historic restoration, and set design among others.

The curriculum emphasizes creative problem solving, research and analysis, and graphic skills. Design studios form the core of the educational experience with additional courses in liberal arts and technical, professional, and communication studies. The curriculum includes an internship experience and an intensive senior independent capstone project. Service learning, study abroad, and interdisciplinary coursework with other disciplines in the College of Art & Design are available.

# **Admission Requirements**

**First-Year Admission** • Entry into the first-year interior design foundation courses is selective. Incoming freshmen intending to major in interior design must apply for admission into the interior design foundation level. High school academic GPA and SAT or ACT scores are the determinants for entrance. Applicants with portfolios or other factors for consideration are encouraged to contact the School of Interior Design and/or schedule an on-campus interview. Students should apply early as admission is competitive.

Students with the highest qualifications will be approved for pre-interior design admission and allowed to take the beginning design foundation courses. Students who have been selected for pre-interior design admission will be notified in writing. Transfer students and LSU students with a minimum 2.75 GPA will be considered for admission on a space available basis in the fall and spring semesters.

Admission for the Second Year • Admission into the professional program (years two through four) is competitive for the limited positions available. Admission is selective and is based on a scholastic and portfolio review. Applications are accepted only in the spring semester and must meet the following requirements:

- Completion or enrollment in the first-year foundation courses (ID 1051, ID 1780, ART 1011, ART 1847)
- Earned cumulative GPA of at least 2.75 at time of application
- Portfolio of art and design work representative of required first-year foundation studio courses

Application forms, deadlines, instructions, and portfolio submission guidelines may be obtained in February in Room 402 Design Building, or on the School of Interior Design's website (www.id.lsu.edu).

Qualified transfer students from CIDA-accredited interior design programs may be considered for upper level placement. Transfer students seeking credit for design courses must submit a portfolio for evaluation and are expected to have earned a cumulative GPA of at least 2.75. Students from two and three-year pre-professional programs are normally required to participate in the selective admission procedure. Credit earned from non-accredited programs may be accepted if it is determined to be equivalent. All transfer students are accepted on a space-available basis.

**Personal Computer Requirement** • After acceptance into the professional program (or the beginning of year two), students are required to have their own personal laptop computer that meets the requirements set by the program. Information may be obtained in Room 402 Design Building.

"D" Grades and Repetition of Courses • Interior design majors must pass the following courses with a grade of "C" or better: (1) all required College of Art & Design courses and approved professional electives; and (2) ENGL 2000. One who fails to meet the minimum "C" grade must repeat the course in the next regular semester in which the student is enrolled and the course is offered.

### Interior Design, B.I.D.

# **Interior Design**

### **CRITICAL REQUIREMENTS**

SEMESTER 1: ART 1011 and ID 1780; 2.75 Cumulative GPA.

SEMESTER 2: ART 1847 and ID 1051; 2.75 Cumulative GPA; Admission to the professional program. SEMESTER 3: ID 2750, ID 2774, ID 2781 and ID 2785. SEMESTER 4: ID 2751, ID 2770 and ID 2775. SEMESTER 5: ID 3752.

# Semester 1

**CRITICAL:** ART 1011 and ID 1780; 2.75 Cumulative GPA.

- ART 1011 Two-Dimensional Design (3)
- ENGL 1001 English Composition (3)
- ID 1780 Interior Design Technical Drawing (3)
- MATH 1021 College Algebra (3) or
- MATH 1029 Introduction to Contemporary Mathematics (3)
- General Education course Social Sciences (3) Total Semester Hours: 15

# Semester 2

**CRITICAL:** ART 1847 and ID 1051; 2.75 Cumulative GPA; Admission to the professional program.

- ART 1847 Drawing and Composition (3)
- ID 1051 Introduction to Interior Design (3)
- General Education course Analytical Reasoning (3)
- General Education course Social Sciences (3)<sup>1</sup>
- General Education course Humanities CMST (3)<sup>2</sup>

**Total Semester Hours: 15** 

# Semester 3

**CRITICAL:** ID 2750, ID 2774, ID 2781 and ID 2785. Due to the rigorous nature of design studios, recommend taking ID 2785 in the SUMMER prior to the third semester.

- ARCH 2007 History of Architecture I (3)
- ID 2750 Interior Design Studio I (4)
- ID 2774 Interior Construction and Systems (3)
- ID 2781 Interior Design Graphics (3)
- ID 2785 Computer Visualization (3)

**Total Semester Hours: 16** 

# Semester 4

#### CRITICAL: ID 2751, ID 2770 and ID 2775.

- ARCH 2008 History of Architecture II (3)
- ENGL 2000 English Composition (3)
- ID 2751 Interior Design Studio II (4)
- ID 2770 Color and Illumination I (3)
- ID 2775 Interior Materials, Finishes and Furnishings (3)

**Total Semester Hours: 16** 

# Semester 5

#### CRITICAL: ID 3752.

- ID 3752 Interior Design Studio III (4)
- ID 3770 Color and Illumination II (3)
- ID 4741 History of Interior Design (3)
- ID 3761 Interior Design Internship (3) <sup>3</sup>
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Humanities English (3)<sup>2</sup>

**Total Semester Hours: 19** 

# Semester 6

# Consult with faculty advisor to schedule ID focus electives.

- ID 3782 Interior Design Construction Documents
   (3)
- ID 3753 Interior Design Studio IV (4)
- ID 4742 Interior Design Contemporary Issues and Theory (3)

- ID 4761 Professional Practice (3)
- Approved College Elective (3)<sup>4</sup>

### Semester 7

- ID 4720 Seminar in Interior Design (3)
- ID 4754 Interior Design Studio V (4)
- Interior Design Focus Elective (3)<sup>5</sup>
- Approved College Elective (3)<sup>4</sup>
- General Education Course Natural Science (Sequence) (3)<sup>1</sup>

**Total Semester Hours: 16** 

# Semester 8

- ID 4755 Interior Design Studio VI (4)
- ID 4756 Independent Study Project (3)
- General Education course Humanities (3)
- General Education course Natural Science (Sequence) (3)<sup>1</sup>
- Approved College Elective (3)<sup>4</sup>

### **Total Semester Hours: 16**

# 129 Total Sem. Hrs.

<sup>1</sup> - If two course sequence is taken in the physical sciences, the additional three hour course must be from the life sciences, and vice versa.

<sup>2</sup> - ENGL Literature and Communications Studies required by the department. See approved list of General Education Humanities Courses.

<sup>3</sup> - MANDATORY INTERNSHIP: ID 3761 or ID 4765 -May be taken after Semester 4 but no later than the summer prior to Semester 7.

<sup>4</sup>- APPROVED ART & DESIGN ELECTIVE: select from courses in ARCH, ART, ARTH, ID, and LA or from other disciplines with prior approval from the department. SIX SEMESTER HOURS MUST BE IN STUDIO COURSES. ART 1001 may not be used for degree credit.

<sup>5</sup> - INTERIOR DESIGN FOCUS ELECTIVE: Choose three hours from ID 4751, ID 4786, or ID 4772.

# **Robert Reich School of Landscape Architecture**

OFFICE	302 Design Building
TELEPHONE	225-578-1434
FAX	225-578-1445
CURRICULUM:	

#### • Landscape Architecture

Landscape architecture offers accredited professional degree programs at both the undergraduate and graduate levels. Preparation for the profession of landscape architecture requires both formal education and practical experience followed by professional examination and registration. LSU is the only school in Louisiana with an accredited program in landscape architecture, attracting students from the U.S. and overseas.

Landscape architecture is a discipline that combines the arts and sciences in a field involving the shaping of the landscape through design. It offers opportunities to students interested in art and design, the natural environment, construction technology, sustainability, cities, and urbanism. The five-year curriculum offers a well-rounded course of study based on standards set by the Landscape Architecture Accreditation Board. The program is a rich educational experience that provides students with a design education supported by studies in history and theory, representation, technology, and the natural sciences.

The Robert Reich School of Landscape Architecture offers many opportunities for students to travel and study abroad. Extensive field trips within the United States are part of the core curriculum and students are required to secure an internship-in their fourth year, either in the U.S. or abroad.

Graduates of this program find employment within Louisiana, throughout the United States, and abroad. Upon satisfactory completion of the undergraduate program, the degree Bachelor of Landscape Architecture is awarded.

Each year more than 30 students are selected to receive scholarships or other financial awards. Students interested in applying for aid offered by the Robert Reich School of Landscape Architecture should contact the school office.

**Undergraduate Admission Requirements** • A student will be admitted to the curriculum in landscape architecture subject to GPA, courses completed, and space availability.

<u>Upper Division (3000-level courses)</u>. Admission into the third year of study is competitive, based on a scholastic and portfolio review. No more than 36 students will be approved for advancement to the upper division each year based on this review. Applicants must meet the following requirements to be considered for admission:

- A 2.50 GPA on all courses completed and on all landscape architecture courses completed
- Completion of required courses or their equivalents: ENGL 2000; GEOG 2050, GEOG 2051; LA 2002, LA 2101, LA 2201, LA 2301, LA 2401; MATH 1022.

<u>Professional Courses (5000-level</u>). Students must have successfully completed all required 1000-4000-level courses before they may enroll in 5000-level courses.

**Transfer Students** • Students seeking to transfer into the landscape architecture major may be admitted only after having been interviewed by the program coordinator. For credit in design studio courses, students must submit a portfolio for faculty evaluation. Credit for landscape architecture courses will be considered only if they were taken as part of an accredited landscape architecture program. Transfer students are strongly encouraged to apply prior to March 1 for admission in the following fall semester.

**Personal Computer Requirement** • Students are required to have their own personal computer upon entering the spring semester of first-year courses. Contact the Robert Reich School of Landscape Architecture for information regarding the type, specifications, and software.

"C" Grades • Landscape Architecture majors must pass all required College of Art & Design courses, all approved electives, and ENGL 2000 with a grade of "C" or better. A student who earns less than a "C" in one of these courses must repeat the course in the next regular semester in which the student is enrolled and the course is offered.

### Landscape Architecture, B.L.A.

# Landscape Architecture

### **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in LA 1101; GEOG 2050 or GEOG 2051. SEMESTER 2: "C" or better in LA 1102; GEOG 2050 or GEOG 2051. SEMESTER 3: "C" or better in LA 2001; RNR 1001. SEMESTER 4: "C" or better in LA 2002, LA 2301; 2.5 Cumulative GPA. SEMESTER 5: "C" or better in LA 3001.

In this curriculum, sequential course progress is imperative. A student failing to complete any required course more than one year later than the time designated in the curriculum is prohibited from advancement in the design studio sequence until the deficiency is corrected. All required courses listed in the fourth year must be completed before a student will be allowed to enroll in the designated 5000-level courses. Students should complete these requirements by the end of their third year.

All elective courses must be approved by the school director or designated advisor.

# Semester 1

**CRITICAL:** "C" or better in LA 1101; GEOG 2050 or GEOG 2051.

- ENGL 1001 English Composition (3)
- MATH 1021 College Algebra (3)
- LA 1101 Landscape Representation I (3)
- LA 1203 Views of the American Landscape (3)
- GEOG 2050 Physical Geography: The Atmosphere (3) or
- GEOG 2051 Physical Geography: Land and Water Surfaces, Plant and Animal Realms (3)

#### Total Semester Hours: 15

# Semester 2

**CRITICAL:** "C" or better in LA 1102; GEOG 2050 or GEOG 2051.

- GEOG 2050 Physical Geography: The Atmosphere (3) or
- GEOG 2051 Physical Geography: Land and Water Surfaces, Plant and Animal Realms (3)
- LA 1102 Landscape Representation II (3)
- MATH 1022 Plane Trigonometry (3)
- General Education course Social Sciences (3)
- General Education course Humanities (3)

**Total Semester Hours: 15** 

# Semester 3

**CRITICAL:** "C" or better in LA 2001; RNR 1001.

- LA 2001 Landscape Design I (6)
- LA 2301 Landscape Technology I: Land Design (3)
- LA 2201 Landscape History I (3)
- RNR 1001 Natural Resource Conservation (3)
- General Education course Social Sciences (3)

**Total Semester Hours: 18** 

# Semester 4

**CRITICAL:** "C" or better in LA 2002, LA 2301; 2.5 Cumulative GPA.

- LA 2002 Landscape Design II: Site Design (6)
- LA 2101 Landscape Representation III (3)
- LA 2401 Landscape Ecology (3)
- LA 3201 Landscape History II (3)
- LA 3302 Landscape Technology III: Design Detailing (3)

**Total Semester Hours: 18** 

# Semester 5

**CRITICAL:** "C" or better in LA 3001. Note: Restricted admission to 3000-level studios based on 2.5 GPA; cpmpletion of required 1000and 2000-level courses; and portfolio review.

- LA 3001 Landscape Design III: Site Planning and Design (6)
- LA 3401 Plant Materials I (3)

- General Education course Arts [LA 1201, ARCH 2401, or other] (3)
- LA 4201 Theory and Methods of Landscape Planning (3)
- ENGL 2000 English Composition (3)

**Total Semester Hours: 18** 

# Semester 6

- LA 3002 Landscape Design IV: Community Design (6)
- LA 3301 Landscape Technology II: Grading, Drainage and Roads (3)
- LA 3402 Plant Materials II (3)
- General Education course Humanities (3)
- Approved Elective (3)

#### Total Semester Hours: 18

# Semester 7

- LA 4001 Landscape Design V: Landscape Planning and Development (6)
- LA 4301 Landscape Technology IV: Specialization (3)
- Approved Elective (9)

**Total Semester Hours: 18** 

# Semester 8

- LA 4002 Landscape Design VI: Specialization (6) or
- LA 4003 Landscape Architecture Internship (6)<sup>1</sup>

**Total Semester Hours: 6** 

# Semester 9

RESTRICTED ADMISSION to 5000-level LA professional courses, based on 2.5 GPA & completion of required 1000-4000 level courses.

- LA 5001 Landscape Design VII: Urban Landscape Design (6)
- LA 5201 Research Seminar (3)
- Approved Elective (6)
- Natural Systems Elective (3)

### Total Semester Hours: 18

# Semester 10

- LA 5002 Landscape Design VIII: Capstone Project (6)
- LA 5301 The Practice of Landscape Architecture (3)
- Approved Electives (6)

# Total Semester Hours: 15

# 159 Total Sem. Hrs.

<sup>1</sup>- LA 4002 may be scheduled in summer session (8.5 semester) as a study abroad program.

# **E. J. Ourso College of Business**

RICHARD D. WHITE, JR. Ourso Distinguished Professor and Dean	TIMOTHY D. CHANDLER Catherine M. Rucks Professor of Management and Associate Dean			
HELMUT SCHNEIDER Ourso Family Distinguished Professor of Information Systems; Associate Dean for Research and Graduate Programs	ASHLEY R. JUNEK Assistant Dean for Office of Business Student Success			
MELANIE BUCHMANN	YE-SHO CHEN			
Director of Undergraduate Academic Services	Director of International Experience			
ANGELA GUIDRY	SETH THIBODEAUX			
Director of Diversity & Inclusion	Interim Director of Professional Development			
CHRISTIE ENGLADE	MARY KAY TESSIER			
Academic Counselor	Academic Counselor			
JORDAN LIZANA	RACHEL GRANT			
Coordinatorof Recruitment and BRC Student Services	Office Coordinator			
STEPHANIE GANDY	ERIN WARNS			
Ourso Internship Program Manager	Career Coach			
Business Education Complex, Room 2000 TELEPHONE 225-578-3211 FAX 225-578-5256 EMAIL advisor@lsu.edu WEBSITE www.lsu.edu/business				

Departments and Curricula

Department of Accounting	Department of Economics	Department of Finance	General Business (Interdepartmental Program)
The Stephenson Department of William W. and Catherine M.			
Entrepreneurship & InformationRucks Department of		Department of Marketing	Public Administration Institute
Systems	Management		

# **Undergraduate Programs**

The E. J. Ourso College of Business is Louisiana's premier public business school, committed to excellence in fostering learning and pursuing discovery in an intellectually diverse, global business environment. It serves its constituents in the following ways:

- Making significant contributions to the advancement of knowledge in related business disciplines;
- Delivering high quality degree programs that produce graduates who will excel in their respective fields of business;
- Providing programs that strengthen the business skill sets of firms and institutions;
- Making valuable contributions to the practice of business in related business disciplines; and
- Engaging in other academic or applied programs and activities that advance business development in the state of Louisiana, the nation, and worldwide.

The E. J. Ourso College of Business offers specialized professional training in several areas of business in addition to a program of general business. All undergraduate degrees in the E. J. Ourso College of Business are bachelor of science degrees. The following majors are offered by the E. J. Ourso College of Business:

- Accounting
- Economics
- Entrepreneurship
- Finance
- General Business
- Information Systems & Decision Sciences
- International Trade & Finance
- Management

#### • Marketing

Each curriculum is constructed to ensure that students receive a broad general education and a sound foundation in the basic areas of business knowledge. At the same time, students may obtain limited specialization in a particular area of business. The objective of the college is to provide training in the functional fields of business so students will be qualified to hold positions of leadership, trust, and responsibility in business and industry.

The E. J. Ourso College of Business is a member school of the Association to Advance Collegiate Schools of Business (AACSB). Its undergraduate programs have been accredited continuously by the AACSB since 1931.

# **Graduate Programs**

Master's and doctoral degrees are offered through the graduate school by the various departments within the college. In addition, the following specialized master's degrees are offered. For information about these degrees consult *"The Graduate School"* section.

#### James C. & Cherie H. Flores Master of Business Administration Program

The combination of a general or a technical undergraduate education with a graduate-level master of business administration degree is a widely recognized avenue to opportunity and success in the business world. To this end, the college offers the Flores MBA Program for students who aspire to management careers in business and industry. The program is open to those who hold degrees in humanities and social sciences or specialized fields such as engineering, geology, chemistry, physics, mass communication, or agriculture, as well as students with undergraduate degrees in business.

#### **Master of Public Administration**

The Master of Public Administration program is for students interested in public management and/or public policy issues. The MPA program provides students with the management and financial skills to work in public agencies, non-profit organizations, private consulting and research organizations, and private companies in governmental relations. This program is administered by the Public Administration Institute. MPA students take 33 credit hours of core courses and nine credit hours in an area of specialization.

# **Undergraduate Admission Requirements**

Students in good standing may apply for admission to the E. J. Ourso College of Business. Students transferring from another institution must also meet university transfer admission requirements. Application forms are available in Room 2000 Business Education Complex or online (www.lsu.edu/business). Students who are denied admission may reapply for admission in a subsequent semester.

Students are eligible for admission to the E. J. Ourso College of Business once they have successfully completed the following requirements:

- Complete a minimum of 30 hours of university coursework (to include 12 hours of coursework on the LSU A&M campus of which at least 9 hours must be from the E. J. Ourso College of Business).
- Complete the Pre-Business Core classes (ENGL 1001, MATH 1021 and MATH 1431, ECON 2000, ISDS 1102, and ACCT 2001) with a "C" or better in each course. Students who place or test out of any of the Pre-Business Core classes will be given credit for successfully completing those classes.

Students majoring in accounting, or finance must meet the following GPA requirements at the time of their application for admission into the major:

- A minimum 3.0 cumulative GPA
- A minimum 3.0 LSU GPA
- A minimum 2.5 business GPA
- A minimum 2.5 LSU business GPA

Students majoring in economics, general business, international trade & finance, information systems & decision sciences, management, or marketing must meet the following GPA requirements at the time of their application for admission in to the major:

- A minimum 2.6 cumulative GPA
- A minimum 2.6 cumulative LSU GPA
- A minimum 2.3 business GPA
- A minimum 2.3 LSU business GPA

# **Maintenance Requirements**

Continued enrollment in the E. J. Ourso College of Business is dependent upon satisfying the following requirements:

- Maintain a cumulative GPA of 2.0 on all university coursework.
- Maintain a minimum LSU cumulative GPA of 2.0 on all coursework in the university (all LSU campuses).
- Maintain a minimum 2.0 business GPA.
- Maintain a minimum 2.0 LSU business GPA.
- Maintain satisfactory academic progress towards the completion of the degree.

### **College Probation**

A student will be placed on college probation and will be <u>required</u> to meet with an academic counselor in Office of Undergraduate Programs and Academic Services for the following reasons:

- The student's cumulative GPA falls below a 2.0 at the end of any academic semester.
- The student's LSU GPA falls below a 2.0 at the end of any academic semester.
- The student's business GPA falls below a 2.0 at the end of any academic semester.
- The student's LSU business GPA falls below a 2.0 at the end of any academic semester.
- The student fails to make satisfactory academic progress towards the completion of the degree.

A minimum 12-hour load is expected in the probationary semester. Students on *college probation* will have a college hold placed on their registration which will require them to schedule an appointment with a college academic advisor to register for classes for the next semester. The registration flag will be automatically removed after the student is taken off college probation. Students will be dropped from the college if they are not removed from college probation after one probationary semester.

#### **Removal From the College**

Students will be dropped from the E. J. Ourso College of Business for the following reasons:

- Students placed on college probation and who fail to improve their GPA to the minimum maintenance standard after one probationary semester. Minimum maintenance standards are a 2.0 cumulative GPA, a 2.0 LSU GPA, a 2.0 business GPA, and a 2.0 LSU business GPA.
- Students placed on college probation for failure to make satisfactory academic progress and who fail to make satisfactory academic progress during the probationary semester.

#### **Readmission to the College**

Students, who have been dropped from the E. J. Ourso College of Business for any reason, may reapply for admission to the college. Students who were not registered at LSU for the preceding regular semester must also file a formal application for readmission. All students applying for readmission will be subject to the admission requirements at the time of the readmission. Readmission to the E. J. Ourso College of Business is not automatic. Students seeking readmission are encouraged to schedule an appointment with a college academic advisor.

# **Degree Requirements of the College**

The degree of bachelor of science will be conferred on E. J. Ourso College of Business students who complete one of the approved curricula with a 2.0 or better GPA on all work taken and a 2.0 or better GPA on all business courses. The requirements above apply both to the total coursework taken and to LSU coursework.

A 2.0 or better GPA is required in all accounting coursework in order to graduate with a major in accounting. This requirement applies both to the total accounting coursework taken and to LSU accounting coursework.

A 2.0 or better GPA is required in all economics coursework in order to graduate with a major in economics or international trade and finance. This requirement applies both to the total economics coursework taken and to LSU economics coursework.

Twenty-four of the last 30 hours taken toward the degree must be earned in residence as a registrant in the E. J. Ourso College of Business at LSU. The university requires that all candidates for the bachelor's degree must fulfill a minimum residence requirement of at least 25% of the total number of hours required for the degree at this university.

The AACSB *Standards for Accreditation* state that "the school should require that at least 50% of the business credit hours required for the business degree be earned at the degree-awarding institution."

The student must complete a minimum of 120 semester hours in accordance with the following regulations:

#### Academic Work: 120 Semester Hours

All 3000/4000 level business courses, except ACCT 3001, FIN 3716, ISDS 3115, MGT 3200, and MKT 3401 are restricted to students who have completed 60 hours of college-level coursework. Many 3000/4000-level business courses have prerequisite requirements. Students are responsible for ensuring they have completed the necessary course prerequisites as stated in the most recent catalog prior to registration for a course.

All business majors must complete six hours of oral and written communication courses. See "Departments and Curricula" for more details.

#### **General Education Requirements for a Degree in Business**

- *English Composition (6 hours)*–ENGL 1001 with a grade of "C" or better; and ENGL 2000 with a grade of "C" or better.
- Analytical Reasoning (6 hours)–MATH 1021 and MATH 1431 with a grade of "C" or better; MATH 1023 may be substituted for MATH 1021. MATH 1550 or MATH 1551 may be substituted for MATH 1431. Students should refer to their chosen curriculum to determine the specific mathematics requirements. No student may receive more than nine semester hours of mathematics courses numbered below 1550.
- *Natural Sciences (9 hours)*—Students must take three general education natural science courses, two of which must be in a two semester sequence from the approved list of general education natural science courses. A minimum of six hours must be in a physical or a life science course sequence and the remaining hours must be in an area other than that previously selected (i.e., both physical and life sciences must be taken). See those courses listed as *General Education Natural Science* courses in the catalog.
- Arts (3 hours)-See those courses listed as General Education Arts courses in the catalog.
- Humanities (9 hours)-See those courses listed as General Education Humanities courses in the catalog.
- Social Sciences (6 hours)-ECON 2000 with a grade of "C" or better and ECON 2010.

#### **Electives**

Students may choose any degree credit courses offered by the university consistent with their specific degree requirements. However, no more than six hours may be selected from kinesiology activity courses, band, chorus, or music skills courses. Up to six semester hours in ROTC may be used as electives in all business curricula.

#### **Transfer of Credit from Other Institutions**

In the E. J. Ourso College of Business, transfer credits accepted by the Office of Enrollment Management shall be valid for degree credit only to the extent to which they represent courses acceptable in the curricula of the college. The extent to which credit earned in other colleges and universities is accepted toward fulfilling degree requirements is determined by the dean's office.

Transfer credit in which grades of "F" or "U" have been earned is not accepted toward fulfilling the degree requirements. For business courses, only transfer credit of a "C" or higher may be applied towards the degree. Students enrolled in this college who wish to obtain credits from other colleges or universities (including other campuses of LSU) and who plan to use such credits toward degree requirements should obtain <u>prior approval</u> in writing on a course-specific basis from the Office of Undergraduate Programs and Academic Services.

The E. J. Ourso College of Business has 2+2 agreements with Baton Rouge Community College and with LSU Eunice. Students can send inquiries to advisor@lsu.edu.

#### **Distance Learning Programs Credit**

Students must have the permission of Undergraduate Programs & Academic Services prior to scheduling Distance Learning Programs (DLP) coursework.

Students who are taking classroom courses at the university may not take DLP courses. Students not enrolled in classroom courses during a given semester may be approved for DLP courses through the Office of Undergraduate Programs and Academic Services (Business Education Complex, Room 2000) and may enroll at the Distance Learning Programs Office (1225 Pleasant Hall; 578-3171). Enrollment in DLP courses must be completed by the final date for adding courses for any semester, including summer term.

Students taking IDL courses must complete 50 percent of their business courses through the regular LSU course offerings, no more than 12 semester hours of IDL credit may be applied toward the degree requirements of the college, and the IDL courses will not count toward college residency. General Education courses taken via IDL are limited to 6 hours.

The deadline for completion of all DLP coursework is the last day of final examinations for the semester during which the student is enrolled. A student must complete all DLP coursework before registering to receive a degree and no degree may be awarded during a semester in which a student is enrolled in a DLP course.

# **Graduation Requirements**

Each student must see an academic counselor for a final degree checkout when there are approximately 30 hours remaining to complete the degree requirements. Students who complete degree requirements during spring intersession should plan to graduate in August and must inform the Office of Undergraduate Programs and Academic Servicesof this intention. Such students should see a counselor and register in the summer for "degree only." Students who complete degree requirements during winter intersession should plan to graduate in May and must inform the dean's office of this intention. Such students should see a counselor and register in the spring semester for "degree only." Students who complete degree requirements during summer intersession should plan to graduate in December and must inform the Office of Undergraduate Programs and Academic Services of this intention. Such students should see a counselor and register in the spring semester for "degree only." Students who complete degree requirements during summer intersession should plan to graduate in December and must inform the Office of Undergraduate Programs and Academic Services of this intention. Such students should see a counselor and register in the spring semester for "degree only."

Students who have completed courses at another college or university must have an official transcript covering this work on file in the Office of the University Registrar before registering for the degree.

# **Requirements for a Second Bachelor's Degree**

Business students may earn a second degree within the Ourso College provided the following conditions are met: Students must meet all requirements for both degree programs.

Students must earn 30 hours beyond what is required for the first degree, thus a total of 150 hours must be earned to receive a second business degree.

Of the 150 hours, students must earn a minimum of 15 hours of 3/4000 level business coursework beyond what is required for the first business degree.

# **Minor Field Requirements**

Minors may be selected from any of the minors approved by the Faculty Senate Courses and Curricula Committee and the Office of Academic Affairs with the exception of the business administration minor. Students in the E. J. Ourso College of Business must obtain permission from the Office of Undergraduate Programs and Academic Services to pursue a minor.

#### **Minor in Business Administration**

The E. J. Ourso College of Business also offers a *minor in business administration*. To graduate with a *minor in business administration*, students must complete 18 hours consisting of the following courses: ACCT 2000 or ACCT 2001; ECON 2030; FIN 3715; ISDS 1100; MGT 3200; MKT 3401. Students must have a 2.0 GPA in the courses used to satisfy the minor. At least nine semester hours must be taken on this campus and, of the nine hours, three must be at the 3000- or 4000-level. This minor is **NOT** available to students in the E. J. Ourso College of Business.

#### **Minor in Energy**

To graduate with a *minor in energy*, students must complete 15 hours consisting of the following courses: GEOL 1001; GEOL 1003 or GEOL 2020; FIN 3351; and six hours chosen from: ACCT 4501, ECON 4320, ECON 4325, ENVS 4261, FIN 3718, GBUS 4040, ISDS 4160, or a faculty advisor approved energy elective.

Students must have a 2.0 GPA in the courses used to satisfy the minor. At least nine semester hours must be taken on this campus.

#### **Minor in Internal Audit**

To graduate with a minor in internal auditing, students must complete 15 hours consisting of the following courses: ACCT 3233, ACCT 4233, ACCT 4234; and six hours chosen from: ACCT 3122, ACCT 3222, ACCT 4235, ACCT 4237, ACCT 4244, ACCT 4333, ISDS 3100, ISDS 3110, ISDS 4113, ISDS 4141, ISDS 4244, or a faculty advisor approved elective. Students must have a 2.0 GPA in the courses used to satisfy the minor. At least nine semester hours must be taken on this campus.

Students must have a 2.0 GPA in the courses used to satisfy the minor. At least nine semester hours must be taken on this campus.

Other minors offered by the college include Entrepreneurship (Stephenson Department of Entrepreneurship and Information Systems), Information Technology Management (Stephenson Department of Entrepreneurship and Information Systems), and Personal Investing (Department of Finance). Information for these minors may be found under the department's section of the catalog.

#### **Minor in International Business**

To graduate with a minor in international business, students must complete 18 hours. This includes 12 hours selected from at least three different academic departments: ECON 4520, ECON 4550, FIN 3718, GBUS 4040, ISDS 4160, MGT 4430, MGT 4440, MGT 4450, and MKT 4443; and 6 hours of departmentally approved electives. Students must have a 2.0 GPA in the courses used to satisfy the minor. At least nine semester hours must be taken on this campus, and, at least three of the nine hours must be at the 3000 or 4000 level.

# **Professional Development**

The LSU Olinde Career Center, located in the LSU Student Union, has a team of professionals trained to assist students and alumni in choosing careers, obtaining career-related work experiences while in school, developing job search skills, and securing employment or admission to graduate or professional school. Business students also have the opportunity to meet with a career coach and an internship manager on site in the Business Education Complex through the Office of Business Student Success.

# Beta Gamma Sigma

Membership in *Beta Gamma Sigma* is one of the highest forms of recognition at the national level that a student can receive in an undergraduate or master's program in business or management. To be eligible for membership, a student must rank in the upper 10% of the junior class (second semester), upper 10% of the senior class, upper 20% of the graduating master's class, or must have completed all requirements to receive a doctorate. Transfer students must complete one full year as a full-time student at LSU to qualify for membership. Members are elected to membership and publicly recognized during the Spring Awards Ceremony.

Beta Gamma Sigma has three purposes: to encourage and reward scholarship, to promote advancement of education in business, and to foster integrity in the conduct of business operations.

# **Undergraduate Career Plan**

Students are encouraged to enrich their studies and prepare for their careers by using the Four-Year Career Plan in addition to their academic course of study.

# **General Business (Interdepartmental Program)**

OFFICEBusiness Education Complex, Suite 2700TELEPHONE225-578-3211FAX225-578-5256WEBSITEhttp://www.lsu.edu/business/obss/bs-generalbusiness/index.phpE-MAILadvisor@lsu.edu

General Business allows students considerable freedom to build a curriculum that reflects a broad diversity of interests within business. With General Business, students can turn their many passions into a degree as they select courses that make sense for their personal career goals.

The Bachelor of Science with a General Business major is a 120-hour degree program. Learning objectives for students will vary, depending on the particular courses they select to complete. To qualify for a Bachelor of Science with a General Business major, a candidate must complete 30 hours of junior and senior level business courses that include courses from at least four different academic disciplines within the E. J. Ourso College of Business. These courses may also be applied toward one or more minors offered through the college: analytics, energy, entrepreneurship, information technology management, internal audit, international business, and personal investing.

# General Business, B.S.

# **General Business**

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001, MATH 1021; 2.3 Cumulative GPA. SEMESTER 2: "C" or better in ISDS 1102 and MATH 1431; 2.3 Business GPA; 2.6 Cumulative GPA. SEMESTER 3: "C" or better in ACCT 2001, ECON 2000; 2.3 Business GPA; 2.6 Cumulative GPA. SEMESTER 4: ISDS 2000; ECON 2010; Admission to the College; 2.3 Business GPA; 2.6 Cumulative GPA. SEMESTER 5: "C" or better in ENGL 2000; ACCT 2101.

# Semester 1

**CRITICAL:** "C" or better in ENGL 1001, MATH 1021; 2.3 Cumulative GPA.

- ECON 2000 Principles of Microeconomics (3)
- ENGL 1001 English Composition (3)
- ISDS 1102 Introduction to Management Information Systems for Business Majors (3)
- MATH 1021 College Algebra (3)
- General Education course Natural Sciences (3)<sup>1</sup>

# Total Semester Hours: 15

# Semester 2

**CRITICAL:** "C" or better in ISDS 1102, MATH 1431; 2.3 Business GPA; 2.6 Cumulative GPA.

- ACCT 2001 Introductory Financial Accounting (3)
- MATH 1431 Calculus with Business and Economic Applications (3)
- Oral and Written Communication Requirement 1(3)<sup>2</sup>
- General Education course Humanities (3)
- General Education course Natural Sciences (3)<sup>1</sup>

# Total Semester Hours: 15

# Semester 3

**CRITICAL:** "C" or better in ACCT 2001, ECON 2000; 2.3 Business GPA; 2.6 Cumulative GPA .

- ECON 2010 Principles of Macroeconomics (3)
- ISDS 2000 Business Statistics and Analytics I (3)
- ACCT 2101 Introductory Managerial Accounting (3) <sup>4</sup>
- Oral and Written Communication Requirement 2 (3)<sup>3</sup>
- General Education course Arts (3)

# Total Semester Hours: 15

# Semester 4

CRITICAL: ECON 2010, ISDS 2000; Admission to the College; 2.3 Business GPA; 2.6 Cumulative GPA; .

- ECON 2035 Money, Banking and Macroeconomic Activity (3)<sup>4</sup>
- ENGL 2000 English Composition (3)
- ISDS 2001 Business Statistics and Analytics II
   (3)
- General Education course Humanities (3)
- General Education course Natural Sciences (3)<sup>1</sup>

# **Total Semester Hours: 15**

# Semester 5

**CRITICAL:** "C" or better in ENGL 2000; ACCT 2101.

- BLAW 3201 Business Law (3)
- MGT 3200 Principles of Management (3)
- FIN 3716 Financial Management (3)
- ISDS 3115 Introduction to Operations Management (3)
- MKT 3401 Principles of Marketing (3)

# Total Semester Hours: 15

# Semester 6

- Approved General Business Courses (12)<sup>5</sup>
- Elective (3)<sup>6</sup>

# Total Semester Hours: 15

# Semester 7

- General Education course Humanities (3)
- Approved General Business Courses (9)<sup>5</sup>
- Elective (3)<sup>6</sup>

### **Total Semester Hours: 15**

# Semester 8

- MGT 3830 Strategic Management (3)
- Approved General Business Courses (9)<sup>5</sup>
- Elective (3)<sup>6</sup>

# **Total Semester Hours: 15**

# 120 Total Sem. Hrs.

<sup>1</sup> - GENERAL EDUCATION NATURAL SCIENCE REQUIREMENT: If two course sequence is taken in the physical science, the additional three hour course must be taken from the life sciences, and vice versa.

<sup>2</sup> - Oral and Written Communication Requirement 1: Choose from CMST 2060, CMST 2061 or CMST 2064. A Communication Intensive (C-I) course may be substituted for the Oral and Written Communication Requirement with permission from an academic advisor.

<sup>3</sup> - Oral and Written Communication Requirement 2: Choose from CMST 2060, CMST 2061 or CMST 4113. A Communication Intensive (C-I) course may be substituted for the Oral and Written Communication Requirement with permission from an academic advisor.

<sup>4</sup> - Business students cannot receive credit for ACCT 2000, ECON 2030, FIN 3715 or ISDS 1100.

<sup>5</sup> - General Business electives must be 3000/4000 level and selected from the offerings of at least four of the following departments: Accounting, Economics, Entrepreneurship & Information Systems, Finance, Management, and Marketing.

ELECTIVES: See "Electives" under "Degree Requirements of the College."

# **Department of Accounting**

OFFICE	Business Education Complex, Suite 2800
TELEPHONE	225-578-6202
FAX	225-578-6201
WEBSITE	business.lsu.edu/accounting
E-MAIL	accounting@lsu.edu

# What is Accounting?

Accounting is the language of business, defines transactions so they can be used to describe business activities. Learning the language allows an individual to communicate and understand the financial operations of any and all types of organizations. To help with learning this language is the Department of Accounting faculty, who publish articles in top academic and professionals journals, write textbooks and trade books, and are active participants in the accounting profession.

# **Opportunities in Accounting**

Areas: Auditing, Cost Accounting, Information Systems, Tax Planning/Compliance

**Employers:** Public Accounting Firms, Government Agencies, Banks/Financial Institutions, Nonprofit Organizations, Healthcare Industries, Service/Manufacturing Companies, Consulting Practices

Refer to the E. J. Ourso College section for admission requirements.

Students are required to earn at least a grade of "C" in each accounting course taken. For an accounting course to qualify as a prerequisite for another accounting course, it is necessary that a grade of "C" or better be earned in the prerequisite course. Accounting majors must earn a 2.0 average in all accounting courses taken.

To become a licensed Certified Public Accountant in Louisiana, applicants must have at least 150 hours of college credit. Visit www.cpaboard.state.la.us for details on specific education requirements to take the CPA exam as a Louisiana candidate.

# **BS** in Accounting

The bachelor of accounting is a 120-hour program with several learning objectives for students:

- Technical competence in financial accounting, taxation, and auditing.
- Show proficiency in accounting technologies.
- Demonstrate research skills.
- Create well-written documents on accounting topics.
- Deliver an effective oral presentation on an accounting topic.
- Defend proposed solutions to accounting problems.
- Work effectively in a team environment to generate an acceptable solution to an accounting problem.
- Work productively and professionally with co-workers and supervisors to accomplish job tasks.

### Accounting, BS

# Accounting

### **CRITICAL REQUIREMENTS**

<u>SEMESTER 1</u>: "C" or better in ENGL 1001, MATH 1021; 2.5 cumulative GPA

<u>SEMESTER 2</u>: "C" or better in ISDS 1102, MATH 1431; 2.5 business GPA; 2.75 cumulative GPA

<u>SEMESTER 3</u>: "C" or better in ACCT 2001, ECON 2000; 2.5 business GPA; 2.75 cumulative GPA

<u>SEMESTER 4</u>: ECON 2010; ISDS 2000; Admission to the College; 2.5 business GPA; 3.0 cumulative GPA

SEMESTER 5: "C" or better in ENGL 2000; ACCT 2101

# Semester 1

**CRITICAL:** "C" or better in ENGL 1001, MATH 1021; 2.5 Cumulative GPA.

- ECON 2000 Principles of Microeconomics (3) or
- ECON 2001 HONORS: Principles of Microeconomics (3)
- ENGL 1001 English Composition (3)
- ISDS 1101 HONORS: Introduction to Management Information Systems (3) or
- ISDS 1102 Introduction to Management Information Systems for Business Majors (3)
- MATH 1021 College Algebra (3)
- General Education course Natural Sciences (3)<sup>1</sup>

### **Total Semester Hours: 15**

# Semester 2

**CRITICAL:** "C" or better in MATH 1431, ISDS 1102 2.5 Business and 2.75 Cumulative GPA.

- ACCT 2001 Introductory Financial Accounting (3) or
- ACCT 2002 Honors: Introductory Financial Accounting (3)

- MATH 1431 Calculus with Business and Economic Applications (3)
- Oral and Written Communication Requirement 1 (3)<sup>2</sup>
- General Education course Humanities (3)
- General Education course Natural Sciences (3)<sup>1</sup>

# **Total Semester Hours: 15**

# Semester 3

**CRITICAL:** "C" or better in ACCT 2001, ECON 2000; 2.5 Business and 2.75 Cumulative GPA .

- ECON 2010 Principles of Macroeconomics (3) or
- ECON 2011 HONORS: Principles of Macroeconomics (3)
- ISDS 2000 Business Statistics and Analytics I (3) or
- ISDS 2010 HONORS: Introduction to Business Statistics (3)
- ACCT 2101 Introductory Managerial Accounting (3) <sup>4</sup>
- Oral and Written Communication Requirement 2 (3)<sup>3</sup>
- General Education course Humanities (3)

# Total Semester Hours: 15

# Semester 4

**CRITICAL:** ECON 2010; ISDS 2000; 2.5 Business and 3.0 Cumulative GPA; Admission to the College.

- ECON 2035 Money, Banking and Macroeconomic Activity (3) or
- ECON 2036 HONORS: Money, Banking and Macroeconomic Activity (3) <sup>4</sup>
- ENGL 2000 English Composition (3)
- ISDS 2001 Business Statistics and Analytics II (3) or
- ISDS 2011 HONORS: Statistical Methods and Models (3)

- General Education course Arts (3)
- General Education course Natural Sciences (3)<sup>1</sup>

# Total Semester Hours: 15

# Semester 5

**CRITICAL:** "C" or better in ENGL 2000; ACCT 2101; 2.5 Business and Cumulative GPA.

- ACCT 3001 Intermediate Accounting–Part I (3) or
- ACCT 3002 Honors: Intermediate Accounting– Part I (3)
- FIN 3716 Financial Management (3)
- ISDS 3115 Introduction to Operations Management (3)
- MKT 3401 Principles of Marketing (3) or
- MKT 3402 HONORS: Principles of Marketing (3)
- General Education course Humanities (3)

### **Total Semester Hours: 15**

# Semester 6

- ACCT 3021 Intermediate Accounting–Part II (3)
- ACCT 3121 Cost Analysis and Control (3)
- BLAW 3201 Business Law (3)
- ISDS 3110 Data and Information Management (3)
- MGT 3200 Principles of Management (3)

### **Total Semester Hours: 15**

# Semester 7

- ACCT 3122 Accounting Information Systems (3)
  4
- ACCT 3221 Income Tax Accounting I (3)

- ACCT 4022 Advanced Accounting (3) or
- ACCT 4421 Governmental and Not-for-Profit Accounting (3)
- BLAW 4203 Commercial Transactions for Accountants (3)
- Elective  $(3)^5$

# Total Semester Hours: 15

# Semester 8

- ACCT 3222 Auditing (3)
- MGT 3830 Strategic Management (3) or
- MGT 3831 HONORS: Strategically Managing Organizations (3)
- Approved ACCT 4000-level elective (3)
- Approved Analytics Elective (3)
- Electives (3)<sup>5</sup>

# Total Semester Hours: 15

# 120 Total Sem. Hrs.

<sup>1</sup> - GENERAL EDUCATION NATURAL SCIENCE REQUIREMENT: If two course sequence is taken in the physical science, the additional three hour course must be taken from the life sciences, and vice versa.

<sup>2</sup> - Oral and Written Communication Requirement 1: Choose from CMST 2060, CMST 2061 or CMST 2064. A Communication Intensive (C-I) course may be substituted for the Oral and Written Communication Requirement with permission from an academic advisor.

<sup>3</sup> - Oral and Written Communication Requirement 2: Choose from CMST 2060, CMST 2061 or CMST 4113. A Communication Intensive (C-I) course may be substituted for the Oral and Written Communication Requirement with permission from an academic advisor.

<sup>4</sup> - Business students cannot receive credit for ACCT 2000, ECON 2030, FIN 3715 or ISDS 1100.

<sup>5</sup> - ELECTIVES: See "Electives" under "Degree Requirements of the College."

# **Internal Auditing Minor**

To graduate with a minor in internal auditing, students must complete 15 hours consisting of the following courses: ACCT 3233, ACCT 4233, ACCT 4234; and six hours chosen from: ACCT 3122, ACCT 3222, ACCT 4235, ACCT 4237, ACCT 4244, ACCT 4333, ISDS 3100, ISDS 3110, ISDS 4113, ISDS 4141, ISDS 4244, or a faculty advisor approved elective. Students must have a 2.0 GPA in the courses used to satisfy the minor. At least nine semester hours must be taken on this campus.

# **Department of Economics**

OFFICE TELEPHONE	Business Education Complex, Suite 2300 225-578-5211
FAX	225-578-3807
E-MAIL	econ@lsu.edu
WEBSITE	www.business.lsu.edu/economics

# What is Economics?

Alfred Marshall, one of the intellectual giants of Economics, defined economics as "... a study of mankind in the ordinary business of life". As such, microeconomics provides a framework for analyzing decisions made by individuals and firms, especially decisions concerning the allocation of scarce resources and the implications of those decisions for both the decision-maker and the wider society. Macroeconomics, which uses the foundations provided by microeconomics, focuses on the determinants of economic aggregates like the price level and national output and studies the effects of monetary and fiscal policy on these aggregates.

# What is International Trade and Finance?

International Trade & Finance is a specialized course of study of the international dimensions of Economics.

# **Opportunities in Economics and International Trade and Finance**

Areas: Economic Advising and Consulting, Industry and Market Analysis, Forecasting, Research, Teaching

**Employers:** Financial Institutions, Insurance Companies, Non-Financial Corporations, Government Agencies, Educational Institutions, Trade/Labor Organizations

A 2.0 or better GPA is required in all economics coursework in order to graduate with a major in economics or international trade and finance. This requirement applies both to the total economics coursework taken and to LSU economics coursework.

# B.S. in Economics and B.S. in International Trade and Finance

The Bachelor of Science in Economics and the Bachelor of Science in International Trade & Finance are 120-hour degree programs with several learning objectives for students:

- Identify the role of supply and demand in a market economy
- Identify the necessary conditions for market economies to function well
- Discuss market system advantages and pricing
- Understanding of the economic role of government policy and the Federal Reserve
- Define and analyze economic problems using algebraic and statistical methods
- Identify the benefits and costs of a global economy

An empirical economic analysis concentration is available; see curriculum page for details.

Refer to the E. J. Ourso College section for admission requirements.

# **Economics**, **BS**

# Economics, B.S.

### **CRITICAL REQUIREMENTS**

<u>SEMESTER 1</u>: "C" or better in ENGL 1001, MATH 1021; 2.3 cumulative GPA

<u>SEMESTER 2</u>: "C" or better in ISDS 1102, MATH 1431; 2.3 business GPA; 2.6 cumulative GPA

<u>SEMESTER 3</u>: "C" or better in ACCT 2001, ECON 2000; 2.3 business GPA; 2.6 cumulative GPA

<u>SEMESTER 4</u>: ECON 2010; ISDS 2000; Admission to the College; 2.3 business GPA; 2.6 cumulative GPA

SEMESTER 5: "C" or better in ENGL 2000; ACCT 2101

# Semester 1

**CRITICAL:** "C" or better in ENGL 1001, MATH 1021; 2.3 Cumulative GPA.

- ECON 2000 Principles of Microeconomics (3) or
- ECON 2001 HONORS: Principles of Microeconomics (3)
- ENGL 1001 English Composition (3)
- MATH 1021 College Algebra (3) <sup>1</sup>
- ISDS 1101 HONORS: Introduction to Management Information Systems (3) or
- ISDS 1102 Introduction to Management Information Systems for Business Majors (3)
- General Education course Natural Sciences (3)<sup>2</sup>

### **Total Semester Hours: 15**

# Semester 2

**CRITICAL:** "C" or better in ISDS 1102, MATH 1431; 2.3 Business; 2.6 Cumulative GPA.

- MATH 1431 Calculus with Business and Economic Applications (3)
- ECON 2010 Principles of Macroeconomics (3) or

- ECON 2011 HONORS: Principles of Macroeconomics (3)
- General Education course Arts (3)
- General Education course Natural Sciences (3)<sup>2</sup>
- Oral and Written Communication Requirement 1 (3)<sup>3</sup>

# Total Semester Hours: 15

# Semester 3

**CRITICAL:** "C" or better in ACCT 2001, ECON 2000; 2.3 Business GPA; 2.6 Cumulative GPA .

- ACCT 2001 Introductory Financial Accounting (3) or
- ACCT 2002 Honors: Introductory Financial Accounting (3)
- ISDS 2000 Business Statistics and Analytics I (3) or
- ISDS 2010 HONORS: Introduction to Business Statistics (3)
- ECON 2035 Money, Banking and Macroeconomic Activity (3) or
- ECON 2036 HONORS: Money, Banking and Macroeconomic Activity (3) <sup>4</sup>
- General Education course Humanities (3)
- Elective (3)<sup>7</sup>

# **Total Semester Hours: 15**

# Semester 4

**CRITICAL:** ECON 2010; ISDS 2000, Admission to the College; 2.3 Business GPA; 2.6 Cumulative GPA; .

- ACCT 2101 Introductory Managerial Accounting (3) or
- ACCT 2102 Honors: Introductory Managerial Accounting (3) <sup>4</sup>
- ISDS 2001 Business Statistics and Analytics II (3) or

- ISDS 2011 HONORS: Statistical Methods and Models (3)
- ENGL 2000 English Composition (3)
- Oral and Written Communication Requirement 2 (3)<sup>5</sup>
- General Education course Natural Sciences (3)<sup>2</sup>

### **Total Semester Hours: 15**

# Semester 5

**CRITICAL:** "C" or better in ENGL 2000; ACCT 2101

- FIN 3716 Financial Management (3)
- MGT 3200 Principles of Management (3)
- ISDS 3115 Introduction to Operations Management (3)
- MKT 3401 Principles of Marketing (3) or
- MKT 3402 HONORS: Principles of Marketing (3)
- General Education course Humanities (3)

### **Total Semester Hours: 15**

### Semester 6

- BLAW 3201 Business Law (3)
- ECON 4710 Aggregate Economic Analysis (3)
- ECON 4720 Intermediate Microeconomic Theory (3) <sup>4</sup>
- ECON Electives (6)<sup>7</sup>

### Total Semester Hours: 15

# Semester 7

- ECON Electives (6)<sup>7</sup>
- Business Elective (3000/4000-level) (3)<sup>6</sup>
- General Education course Humanities (3)
- Elective (3)<sup>7</sup>

### Total Semester Hours: 15

# Semester 8

- MGT 3830 Strategic Management (3)
- ECON electives (6)<sup>7</sup>
- Business elective  $(3000/4000 \text{ level}) (3)^6$
- Elective (3)<sup>7</sup>

# **Total Semester Hours: 15**

# 120 Total Sem. Hrs.

<sup>1</sup> - If postgraduate study in economics is anticipated, it is strongly recommended that the student should pursue a minor in mathematics.

<sup>2</sup> - GENERAL EDUCATION NATURAL SCIENCE REQUIREMENT: If two course sequence is taken in the physical science, the additional three hour course must be taken from the life sciences, and vice versa.

<sup>3</sup> - Oral and Written Communication Requirement 1: Choose from CMST 2060, CMST 2061 or CMST 2064. A Communication Intensive (C-I) course may be substituted for the Oral and Written Communication Requirement with permission from an academic advisor.

<sup>4</sup> - Business students cannot receive credit for ACCT 2000, ECON 2030, FIN 3715 or ISDS 1100.

 <sup>5</sup> - Oral and Written Communication Requirement 2: Choose from CMST 2060, CMST 2061 or CMST 4113.
 A Communication Intensive (C-I) course may be substituted for the Oral and Written Communication Requirement with permission from an academic advisor.

<sup>6</sup> - BUSINESS ELECTIVES: to be selected from the 3000 or 4000 level offerings of the following departments: ACCT, BADM, BLAW, ECON, FIN, GBUS, MGT, MKT, and ISDS.

<sup>7</sup> - ELECTIVES: See "Electives" under "Degree Requirements of the College."

ECON ELECTIVES: See department advisor for more details.

# Area of Concentration

**Empirical Economic Analysis** 

### **CRITICAL REQUIREMENTS**

<u>SEMESTER 1</u>: "C" or better in ENGL 1001, MATH 1021; 2.3 cumulative GPA

<u>SEMESTER 2</u>: "C" or better in ISDS 1102, MATH 1431; 2.3 business GPA; 2.6 cumulative GPA

<u>SEMESTER 3</u>: "C" or better in ACCT 2001, ECON 2000; 2.3 business GPA; 2.6 cumulative GPA

<u>SEMESTER 4</u>: ECON 2010; ISDS 2000; Admission to the College; 2.3 business GPA; 2.6 cumulative GPA

SEMESTER 5: "C" or better in ENGL 2000; ACCT 2101

#### Semester 1

**CRITICAL:** "C" or better in ENGL 1001, MATH 1021; 2.3 Cumulative GPA.

- ECON 2000 Principles of Microeconomics (3)
- ENGL 1001 English Composition (3)
- ISDS 1102 Introduction to Management Information Systems for Business Majors (3)
- MATH 1021 College Algebra (3) <sup>1</sup>
- General Education course Natural Sciences (3)<sup>2</sup>

#### **Total Semester Hours: 15**

#### Semester 2

**CRITICAL:** "C" or better in ISDS 1102, MATH 1431; 2.3 Business GPA; 2.6 Cumulative GPA.

- MATH 1431 Calculus with Business and Economic Applications (3)
- ECON 2010 Principles of Macroeconomics (3)
- General Education course Arts (3)
- General Education course Natural Sciences (3)<sup>2</sup>
- Oral and Written Communication Requirement 1 (3)<sup>3</sup>

#### **Total Semester Hours: 15**

#### Semester 3

**CRITICAL:** "C" or better in ACCT 2001, ECON 2000; 2.3 Business GPA; 2.6 Cumulative GPA .

• ACCT 2001 Introductory Financial Accounting (3)

- ISDS 2000 Business Statistics and Analytics I (3)
- ECON 2035 Money, Banking and Macroeconomic Activity (3) <sup>4</sup>
- General Education course Humanities (3)
- Oral and Written Communication Requirement 2 (3)<sup>5</sup>

#### **Total Semester Hours: 15**

#### Semester 4

**CRITICAL:** ISDS 2000; ECON 2010; 2.3 Business GPA; 2.6 Cumulative GPA; Admission to the College.

- ACCT 2101 Introductory Managerial Accounting (3) <sup>4</sup>
- ENGL 2000 English Composition (3)
- ISDS 2001 Business Statistics and Analytics II
   (3)
- General Education course Natural Sciences (3)<sup>2</sup>
- Elective (3)<sup>6</sup>

Total Semester Hours: 15

#### Semester 5

**CRITICAL:** "C" or better in ENGL 2000; ACCT 2101.

- ECON 4710 Aggregate Economic Analysis (3)
- FIN 3716 Financial Management (3)
- ISDS 3115 Introduction to Operations Management (3)
- MGT 3200 Principles of Management (3)
- MKT 3401 Principles of Marketing (3)

#### **Total Semester Hours: 15**

#### Semester 6

- BLAW 3201 Business Law (3)
- ECON 4630 Introduction to Econometrics (3) <sup>4</sup>
- ECON 4720 Intermediate Microeconomic Theory (3) <sup>4</sup>
- General Education course Humanities (3)
- ECON Elective (3)<sup>6</sup>

**Total Semester Hours: 15** 

#### Semester 7

- ECON 4631 Econometric Methods (3)
- Approved Economics Elective (3)<sup>6</sup>
- Business Elective (3000/4000 level) (3)<sup>6</sup>
- Elective (3)<sup>6</sup>
- General Education Course Humanities (3)

#### **Total Semester Hours: 15**

#### Semester 8

- ECON 4633 Time Series Data Analysis (3)
- MGT 3830 Strategic Management (3)
- Business Elective (3000/4000-level) (3)<sup>6</sup>
- ECON Elective  $(3)^6$
- Elective (3)<sup>6</sup>

Total Semester Hours: 15

#### 120 Total Sem. Hrs.

<sup>1</sup> - If postgraduate study in economics is anticipated, it is strongly recommended that the student should pursue a minor in mathematics.

<sup>2</sup> - GENERAL EDUCATION NATURAL SCIENCE REQUIREMENT: If two course sequence is taken in the physical science, the additional three hour course must be taken from the life sciences, and vice versa.

<sup>3</sup> - Oral and Written Communication Requirement 1: Choose from CMST 2060, CMST 2061 or CMST 2064. A Communication Intensive (C-I) course may be substituted for the Oral and Written Communication Requirement with permission from an academic advisor.

<sup>4</sup> - Business students cannot receive credit for ACCT 2000, ECON 2030, FIN 3715 or ISDS 1100.

 <sup>5</sup> - Oral and Written Communication Requirement 2: Choose from CMST 2060, CMST 2061 or CMST 4113.
 A Communication Intensive (C-I) course may be substituted for the Oral and Written Communication Requirement with permission from an academic advisor.

<sup>6</sup> - BUSINESS ELECTIVES: to be selected from the 3000 or 4000 level offerings of the following departments: ACCT, BADM, BLAW, ECON, FIN, GBUS, MGT, MKT, and ISDS.

ELECTIVES: See "Electives" under "Degree Requirements of the College."

ECON ELECTIVES: See department advisor for more details.

# International Trade and Finance, B.S.

# International Trade and Finance

#### **CRITICAL REQUIREMENTS**

<u>SEMESTER 1</u>: "C" or better in ENGL 1001, MATH 1021; 2.3 cumulative GPA

<u>SEMESTER 2</u>: "C" or better in ISDS 1102, MATH 1431; 2.3 business GPA; 2.6 cumulative GPA

<u>SEMESTER 3</u>: "C" or better in ACCT 2001, ECON 2000; 2.3 business GPA; 2.6 cumulative GPA

<u>SEMESTER 4</u>: ECON 2010; ISDS 2000; Admission to the College; 2.3 business GPA; 2.6 cumulative GPA

SEMESTER 5: "C" or better in ENGL 2000; ACCT 2101

# Semester 1

**CRITICAL:** "C" or better in ENGL 1001, MATH 1021; 2.3 Cumulative GPA.

- ECON 2000 Principles of Microeconomics (3)
- ENGL 1001 English Composition (3)
- ISDS 1102 Introduction to Management Information Systems for Business Majors (3)
- MATH 1021 College Algebra (3)
- General Education course Natural Sciences (3)<sup>1</sup>

# Total Semester Hours: 15

# Semester 2

**CRITICAL:** "C" or better in ISDS 1102, MATH 1431; 2.3 Business GPA; 2.6 Cumulative GPA.

- ECON 2010 Principles of Macroeconomics (3)
- MATH 1431 Calculus with Business and Economic Applications (3)
- Oral and Written Communication Requirement 1 (3)<sup>2</sup>
- General Education course Arts (3)

• General Education course - Natural Sciences (3)<sup>1</sup>

#### **Total Semester Hours: 15**

### Semester 3

**CRITICAL:** "C" or better in ACCT 2001, ECON 2000; 2.3 Business GPA; 2.6 Cumulative GPA.

- ACCT 2001 Introductory Financial Accounting (3)
- ECON 2035 Money, Banking and Macroeconomic Activity (3) <sup>3</sup>
- ISDS 2000 Business Statistics and Analytics I (3)
- Oral and Written Communication Requirement 2 (3)<sup>4</sup>
- General Education course Humanities (3)

### **Total Semester Hours: 15**

# Semester 4

CRITICAL: ECON 2010; ISDS 2000; Admission to the College; 2.3 Business GPA; 2.6 Cumulative GPA.

- ACCT 2101 Introductory Managerial Accounting (3) <sup>4</sup>
- ENGL 2000 English Composition (3)
- ISDS 2001 Business Statistics and Analytics II (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- Elective (3)<sup>5</sup>

### Total Semester Hours: 15

### Semester 5

**CRITICAL:** "C" or better in ENGL 2000; ACCT 2101.

- FIN 3716 Financial Management (3)
- ECON 4720 Intermediate Microeconomic Theory (3)
- ISDS 3115 Introduction to Operations Management (3)
- MGT 3200 Principles of Management (3)

• MKT 3401 Principles of Marketing (3)

### **Total Semester Hours: 15**

# Semester 6

- BLAW 3201 Business Law (3)
- ECON 4710 Aggregate Economic Analysis (3)
- POLI 2057 Introduction to International Politics (3)
- General Education course Humanities (3)
- ECON Elective (3)<sup>5</sup>

#### **Total Semester Hours: 15**

### Semester 7

- ECON 4520 International Trade (3)
- International Business Requirement (3)<sup>6</sup>
- Gen Ed Course Humanities (3)
- Econ Elective (3)<sup>5</sup>
- Business Elective (3)<sup>5</sup>

### **Total Semester Hours: 15**

### Semester 8

- ECON 4550 International Finance (3)
- MGT 3830 Strategic Management (3)
- International Business Requirement (3)<sup>6</sup>
- Electives (6)<sup>5</sup>

Total Semester Hours: 15

# 120 Total Sem. Hrs.

<sup>1</sup>-GENERAL EDUCATION NATURAL SCIENCE REQUIREMENT: If two course sequence is taken in the physical science, the additional three hour course must be taken from the life sciences, and vice versa.

<sup>2</sup> -Oral and Written Communication Requirement 1: Choose from CMST 2060, CMST 2061 or CMST 2064. A Communication Intensive (C-I) course may be substituted for the Oral and Written Communication Requirement with permission from an academic advisor. <sup>3</sup> - Business students cannot receive credit for ACCT 2000, ECON 2030, FIN 3715 or ISDS 1100.

 <sup>4</sup> - Oral and Written Communication Requirement 2: Choose from CMST 2060, CMST 2061 or CMST 4113.
 A Communication Intensive (C-I) course may be substituted for the Oral and Written Communication Requirement with permission from an academic advisor.

<sup>5</sup> - BUSINESS ELECTIVES: to be selected from the 3000 or 4000 level offerings of the following departments: ACCT, BADM, BLAW, ECON, FIN, GBUS, MGT, MKT, and ISDS.

ELECTIVES: See "Electives" under "Degree Requirements of the College."

<sup>6</sup> - International Business Requirement: Choose TWO (total 6 hours) from FIN 3718, MGT 4430, MGT 4440, MGT 4450, and MKT 4443.

# Area of Concentration

### **Empirical Economic Analysis**

#### **CRITICAL REQUIREMENTS**

<u>SEMESTER 1</u>: "C" or better in ENGL 1001, MATH 1021; 2.3 cumulative GPA

<u>SEMESTER 2</u>: "C" or better in ISDS 1102, MATH 1431; 2.3 business GPA; 2.6 cumulative GPA

<u>SEMESTER 3</u>: "C" or better in ACCT 2001, ECON 2000; 2.3 business GPA; 2.6 cumulative GPA

<u>SEMESTER 4</u>: ECON 2010; ISDS 2000; Admission to the College; 2.3 business GPA; 2.6 cumulative GPA

SEMESTER 5: "C" or better in ENGL 2000; ACCT 2101

#### Semester 1

**CRITICAL:** "C" or better in ENGL 1001, MATH 1021; 2.3 Cumulative GPA.

- ECON 2000 Principles of Microeconomics (3)
- ENGL 1001 English Composition (3)
- ISDS 1102 Introduction to Management Information Systems for Business Majors (3)
- MATH 1021 College Algebra (3)
- General Education course Natural Sciences (3)<sup>1</sup>

#### **Total Semester Hours: 15**

#### Semester 2

**CRITICAL:** "C" or better in ISDS 1102, MATH 1431; 2.3 Business GPA; 2.6 Cumulative GPA.

- ECON 2010 Principles of Macroeconomics (3)
- MATH 1431 Calculus with Business and Economic Applications (3)
- Oral and Written Communication Requirement 1 (3)<sup>2</sup>
- General Education course Arts (3)
- General Education course Natural Sciences (3)<sup>1</sup>

#### Total Semester Hours: 15

#### Semester 3

**CRITICAL:** "C" or better in ACCT 2001, ECON 2000 ; 2.3 Business GPA; 2.6 Cumulative GPA.

- ACCT 2001 Introductory Financial Accounting (3)
- ECON 2035 Money, Banking and Macroeconomic Activity (3) <sup>3</sup>
- ISDS 2000 Business Statistics and Analytics I (3)
- Oral and Written Communication Requirement 2 (3)<sup>4</sup>
- General Education course Humanities (3)

Total Semester Hours: 15

#### Semester 4

**CRITICAL:** ISDS 2000; ECON 2010; Admission to the College; 2.3 Business GPA; 2.6 Cumulative GPA.

- ACCT 2101 Introductory Managerial Accounting (3) <sup>4</sup>
- ENGL 2000 English Composition (3)
- ISDS 2001 Business Statistics and Analytics II
   (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- Elective  $(3)^5$

Total Semester Hours: 15

#### Semester 5

**CRITICAL:** "C" or better in ENGL 2000; ACCT 2101.

- FIN 3716 Financial Management (3)
- ECON 4710 Aggregate Economic Analysis (3)
- ISDS 3115 Introduction to Operations Management (3)
- MGT 3200 Principles of Management (3)
- MKT 3401 Principles of Marketing (3)

#### Total Semester Hours: 15

#### Semester 6

- BLAW 3201 Business Law (3)
- ECON 4630 Introduction to Econometrics (3)
- ECON 4720 Intermediate Microeconomic Theory (3)
- POLI 2057 Introduction to International Politics (3)
- General Education course Humanities (3)

#### **Total Semester Hours: 15**

#### Semester 7

- ECON 4520 International Trade (3)
- ECON 4631 Econometric Methods (3)
- General Education Course Humanities (3)
- International Business Requirement (3)<sup>6</sup>
- Elective  $(3)^5$

Total Semester Hours: 15

#### Semester 8

- ECON 4550 International Finance (3)
- ECON 4633 Time Series Data Analysis (3)
- MGT 3830 Strategic Management (3)
- International Business Requirement (3)<sup>6</sup>
- Elective (3)<sup>5</sup>

#### Total Semester Hours: 15

#### 120 Total Sem. Hrs.

<sup>1</sup> - GENERAL EDUCATION NATURAL SCIENCE REQUIREMENT: If two course sequence is taken in the physical science, the additional three hour course must be taken from the life sciences, and vice versa.

<sup>2</sup>- Oral and Written Communication Requirement 1: Choose from CMST 2060, CMST 2061 or CMST 2064. A Communication Intensive (C-I) course may be substituted for the Oral and Written Communication Requirement with permission from an academic advisor.

<sup>3</sup> - Business students cannot receive credit for ACCT 2000, ECON 2030, FIN 3715 or ISDS 1100.

 <sup>3</sup> - Oral and Written Communication Requirement 2: Choose from CMST 2060, CMST 2061 or CMST 4113.
 A Communication Intensive (C-I) course may be substituted for the Oral and Written Communication Requirement with permission from an academic advisor.

<sup>5</sup>- BUSINESS ELECTIVES: to be selected from the 3000 or 4000 level offerings of the following departments: ACCT, BADM, BLAW, ECON, FIN, GBUS, MGT, MKT, and ISDS.

ELECTIVES: See "Electives" under "Degree Requirements of the College."

<sup>6</sup>- International Business Requirement: Choose TWO (total 6 hours) from FIN 3718, MGT 4430, MGT 4440, MGT 4450, and MKT 4443.

# **Department of Finance**

OFFICEBusiness Education Complex, Suite 2900TELEPHONE225-578-6291FAX225-578-6366E-MAILfinance@lsu.eduWEBSITEbusiness.lsu.edu/finance

# What is Finance?

Finance is the study of how individuals, businesses, and organizations acquire and utilize capital (i.e., money). Two basic elements of finance include the tradeoff between expected returns and risk and the importance of timing of future cash flows.

As a partner of the CFA (Chartered Financial Analyst) and CFP® (Certified Financial Planner) programs, the Department of Finance prepares students for careers in investments through coursework and helps them develop knowledge in studies related to real estate, risk management, insurance, and business law.

# **Opportunities in Finance**

Areas: Banking, Corporate Financial Management, Marketing, Personal Financial Planning, Real Estate, Risk Management and Insurance, Securities

**Employers:** Financial Analysis, Commercial Banking, Asset Management, Investment Banking, Private Banking, Securities Analysis, Management Consulting, Risk Management, Equity Research, Internal Audit, Real Estate, Wealth Management

# **B.S. in Finance**

The bachelor of science in finance is a 120-hour degree program with several learning objectives for students:

- Obtain a broad functional knowledge of basic theory and practice of finance
- Access and analyze financial statements to evaluate the financial health of the firm and the strategies it employs to create value for its shareholders
- Develop and apply financial modeling skills for the valuation of the firm and of individual capital assets, securities, and other investment vehicles
- Apply principles of asset allocation and diversification to formulate portfolio strategies through experiential learning
- Understand and apply various measures to evaluate portfolio performance
- Demonstrate effective skills in written and oral communication and in teamwork

Students majoring in finance have the opportunity to study under nationally renowned faculty and access to the Securities Markets Analysis Research and Trading (SMART) Lab, a classroom modeled after an investment company's trading room. The SMART Lab provides state-of-the-art software, including Bloomberg, and data fees for financial analysis.

Refer to the E. J. Ourso College section for admission requirements.

In the Department of Finance, the second digit of the course number denotes the subject area of the course, as follows: 2– Business Law; 3–Real Estate; 4–Risk and Insurance; 6–Finance (capital markets and financial institutions); 7–Finance (financial management); 8–Finance (investment analysis/portfolio theory); 9–General Courses.

Prerequisites for any finance course may be waived in exceptional cases with consent of the instructor and approval of the department chair.

# Finance, BS

# Finance

#### **CRITICAL REQUIREMENTS**

<u>SEMESTER 1</u>: "C" or better in ENGL 1001, MATH 1021; 2.5 cumulative GPA

<u>SEMESTER 2</u>: "C" or better in ISDS 1102, MATH 1431; 2.5 business GPA; 2.75 cumulative GPA

<u>SEMESTER 3</u>: "C" or better in ACCT 2001, ECON 2000; 2.5 business GPA; 2.75 cumulative GPA

<u>SEMESTER 4</u>: ECON 2010; ISDS 2000; Admission to the College; 2.5 business GPA; 3.0 cumulative GPA

SEMESTER 5: "C" or better in ENGL 2000; ACCT 2101

# Semester 1

**CRITICAL:** "C" or better in ENGL 1001, MATH 1021; 2.5 Cumulative GPA.

- ECON 2000 Principles of Microeconomics (3)
- ENGL 1001 English Composition (3)
- ISDS 1102 Introduction to Management Information Systems for Business Majors (3)
- MATH 1021 College Algebra (3)
- General Education course Natural Sciences (3)<sup>1</sup>

### **Total Semester Hours: 15**

### Semester 2

**CRITICAL:** "C" or better in ISDS 1102, MATH 1431; 2.5 Business and 2.75 Cumulative GPA.

- ACCT 2001 Introductory Financial Accounting (3)
- MATH 1431 Calculus with Business and Economic Applications (3)
- Oral and Written Communication Requirement 1 (3)<sup>2</sup>
- General Education course Humanities (3)
- General Education course Natural Sciences (3)<sup>1</sup>

# **Total Semester Hours: 15**

# Semester 3

**CRITICAL:** "C" or better in ACCT 2001, ECON 2000; 2.5 Business and 2.75 Cumulative GPA.

- ECON 2010 Principles of Macroeconomics (3)
- ISDS 2000 Business Statistics and Analytics I (3)
- ACCT 2101 Introductory Managerial Accounting (3) <sup>3</sup>
- General Education course Arts (3)
- General Education course Humanities (3)

# Total Semester Hours: 15

# Semester 4

**CRITICAL:** ECON 2010; ISDS 2000; 2.5 Business and 3.0 Cumulative GPA; Admission to the College.

- ENGL 2000 English Composition (3)
- ISDS 2001 Business Statistics and Analytics II
   (3)
- Oral and Written Communication Requirement 2 (3) <sup>4</sup>
- General Education course Humanities (3)
- General Education course Natural Sciences (3)<sup>1</sup>

### **Total Semester Hours: 15**

# Semester 5

**CRITICAL:** "C" or better in ENGL 2000; ACCT 2101.

- ACCT 3001 Intermediate Accounting–Part I (3)
- ECON 2035 Money, Banking and Macroeconomic Activity (3) <sup>3</sup>
- FIN 3716 Financial Management (3)
- ISDS 3115 Introduction to Operations Management (3)
- MKT 3401 Principles of Marketing (3)

**Total Semester Hours: 15** 

### Semester 6

- BLAW 3201 Business Law (3)
- FIN 3826 Investments (3)
- MGT 3200 Principles of Management (3)
- Business Elective (3000/4000-level) (3)<sup>6</sup>
- Elective (3)<sup>6</sup>

### **Total Semester Hours: 15**

# Semester 7

- ACCT 3021 Intermediate Accounting–Part II (3)
- FIN 3717 Advanced Business Finance (3)
- FIN Elective (3)<sup>5</sup>
- Business Elective (3000/4000-level) (3)<sup>6</sup>
- Elective (3)<sup>6</sup>

# Total Semester Hours: 15

# Semester 8

- FIN 4828 Security Analysis and Portfolio Management (3) or
- FIN 4830 Analysis of Corporate Financial Statements (3) or
- FIN 4850 Financial Derivatives (3)
- MGT 3830 Strategic Management (3)
- FIN Electives (6)<sup>5</sup>
- Elective (3)<sup>6</sup>

**Total Semester Hours: 15** 

120 Total Sem. Hrs.

<sup>1</sup> - GENERAL EDUCATION NATURAL SCIENCE REQUIREMENT: If two course sequence is taken in the physical science, the additional three hour course must be taken from the life sciences, and vice versa.

<sup>2</sup> - Oral and Written Communication Requirement 1: Choose from CMST 2060, CMST 2061 or CMST 2064. A Communication Intensive (C-I) course may be substituted for the Oral and Written Communication Requirement with permission from an academic advisor.

<sup>3</sup> - Business students cannot receive credit for ACCT 2000, ECON 2030, FIN 3715 or ISDS 1100.

 <sup>4</sup> - Oral and Written Communication Requirement 2: Choose from CMST 2060, CMST 2061 or CMST 4113.
 A Communication Intensive (C-I) course may be substituted for the Oral and Written Communication Requirement with permission from an academic advisor.

5 - Choose nine hours of 3000-4000 level finance electives from FIN, ACCT, or ECON courses, consistent with career objectives. At least one course must be in FIN. SUGGESTIONS: For investments: FIN 3910, FIN 4828, FIN 4830, FIN 4850, or FIN 3845. For real estate: FIN 3352 or FIN 3353. For internal auditing: ACCT 3233 (ACCT elective + ACCT 4234 (approved elective). For information systems: ACCT 3122 (ACCT elective), ISDS 3100 + ISDS 3110/ISDS 4120 (approved electives).

6 - BUSINESS ELECTIVES: to be selected from the 3000 or 4000 level offerings of the following departments: ACCT, BADM, BLAW, ECON, FIN, GBUS, MGT, MKT, and ISDS.

ELECTIVES: See "Electives" under "Degree Requirements of the College."

NOTE: FIN 3716 is the prerequisite to most upper-level finance courses and should be scheduled in the junior year.

#### **Personal Investing Minor**

To graduate with a *minor in personal investing*, students must complete 15 hours consisting of the following courses: FIN 1060; FIN 2060; FIN 3715 or FIN 3716; three hours chosen from: FIN 3351, FIN 3352, FIN 3353 or a departmentally approved real estate elective; three hours chosen from FIN 3440, FIN 3460 or a departmentally approved insurance elective; three hours chosen from FIN 3632, FIN 3636, FIN 3718 or a departmentally approved institutions elective; and FIN 4060 (1 hr. capstone). Students must have a 2.0 GPA in the courses used to satisfy the minor. At least nine semester hours must be taken on this campus. This minor is **NOT** available to finance majors.

# The Stephenson Department of Entrepreneurship and Information Systems

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# Entrepreneurship

The Stephenson Department of Entrepreneurship and Informations Systems offers a bachelor of science in entrepreneurship designed to teach, coach, and inspire students to be entrepreneurial in their lives. This "paired-degree" is available to any student as long as he or she is working toward another bachelor's degree at LSU. The program provides students the tools and experiences necessary to creatively pursue new opportunities and innovation in different contexts. Students study how to operate, grow, and manage their own business; how to be creative, innovative, and entrepreneurial in an existing organization; and/or how to generate new wealth and create social change that results in improved quality-of-life, greater morale, and economic freedom in the development of their community. A minor is also available to students who wish to forgo the paired-degree option.

- Bachelor of Science in Entrepreneurship Increase your understanding of business practices and startups through a focus on business management, development, and funding strategies. This degree must be paired with another BS degree from any college on campus as part of a joint-degree.
- Entrepreneurship Minor The entrepreneurship minor builds upon the core business curriculum by providing students with focused coursework needed to prepare for starting or owning a business. Learn how to expand your career options, develop a business concept, identify and evaluate business opportunities, and effectively manage a business.

# What is ISDS?

ISDS, or Information Systems & Decision Sciences, is the study of people, technology, organizations, and the relationships among them. ISDS professionals help firms realize maximum benefit from investment in people, technology, and business processes. ISDS is a people-oriented field with an emphasis on service through technology.

# **Opportunities in ISDS**

Areas: Analysis, Business Application Development, Database Administration, Design, Executive Administration, Support, Systems Integration

Employers: Corporate IT, Business Intelligence and Analytics, Business and Technology Consulting, Entrepreneurial Ventures

# **B.S. in Information Systems & Decision Sciences**

The bachelor of science in ISDS is a 120-hour degree program with several learning objectives for students:

- Support a successful analysis design and implementation of an IT project.
- Analyze the facts, obtain user requirements, design a system meeting these requirements, and implement the system.
- Communicate clearly and effectively in both writing and oral presentations.
- Work effectively as a team leader.
- Understand the role of database management systems.
- Understand the principles of telecommunications design.

# **Personal Computer Requirement**

Students must have their own personal laptop computer before taking ISDS core courses (ISDS 3107, ISDS 3100, ISDS 3110, ISDS 4113, or any courses for which these four courses are prerequisite). Contact the Department of Information Systems & Decision Sciences regarding type, specifications, and software.

Refer to the E. J. Ourso College section for admission requirements.

# **Entrepreneurship, BS**

### **CRITICAL REQUIREMENTS**

The BS in entrepreneurship is only offered as a paired degree meaning it can only be conferred if it is combined with another BS/BA degree offered at LSU. In order to remain on track for the BS in entrepreneurship, students must meet all critical requirements for the primary major. The minimum credit hours required to obtain two degrees is 150 hours. Students will need to seek admission to the E. J. Ourso College of Business upon completion of the entrance requirements in order to declare entrepreneurship as a second degree.

# Semester 1

- ECON 2000 Principles of Microeconomics (3)
- ENGL 1001 English Composition (3)
- ISDS 1102 Introduction to Management Information Systems for Business Majors (3)
- MATH 1021 College Algebra (3)
- General Education course Natural Sciences (3)<sup>1</sup>

# **Total Semester Hours: 15**

# Semester 2

- ACCT 2001 Introductory Financial Accounting (3) <sup>3</sup>
- MATH 1431 Calculus with Business and Economic Applications (3)
- Oral and Written Communication Requirement 1 (3)<sup>2</sup>
- General Education course Humanities (3)
- General Education course Natural Sciences (3)<sup>1</sup>

# **Total Semester Hours: 15**

# Semester 3

- ECON 2010 Principles of Macroeconomics (3)
- ISDS 2000 Business Statistics and Analytics I (3)
- ACCT 2101 Introductory Managerial Accounting (3) <sup>3</sup>
- General Education course Arts (3)
- General Education course Humanities (3)

# Total Semester Hours: 15

# Semester 4

- ECON 2035 Money, Banking and Macroeconomic Activity (3) <sup>3</sup>
- ENGL 2000 English Composition (3)
- ISDS 2001 Business Statistics and Analytics II
   (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- Oral and Written Communication Requirement 2 (3)<sup>4</sup>

# Total Semester Hours: 15

# Semester 5

- FIN 3716 Financial Management (3)
- ENTR 3111 Entrepreneurship (3)
- ENTR 3012 Intrapreneurship (3)
- ENTR 2000 Innovation and Creativity (3)
- Elective (3)<sup>6</sup>

# Total Semester Hours: 15

# Semester 6

- ENTR 4010 Special Topics in Entrepreneurship (3)
- ENTR 4040 Business Planning (3)
- MGT 3200 Principles of Management (3)
- MKT 3401 Principles of Marketing (3)
- ISDS 3115 Introduction to Operations Management (3)

# Total Semester Hours: 15

# Semester 7

- BLAW 3201 Business Law (3)
- Approved Entrepreneurship Electives (3000/4000 level) (6)<sup>5</sup>
- Elective (3)<sup>6</sup>
- General Education course Humanities (3)

# Total Semester Hours: 15

# Semester 8

- MGT 3830 Strategic Management (3)
- Approved Entrepreneurship Electives (3000/4000-level) (9)<sup>5</sup>
- Elective (3)<sup>6</sup>

# Total Semester Hours: 15

# 120 Total Sem. Hrs.

<sup>1</sup> - GENERAL EDUCATION NATURAL SCIENCE REQUIREMENT: If two course sequence is taken in the physical science, the additional three hour course must be taken from the life sciences, and vice versa.

<sup>2</sup> - Oral and Written Communication Requirement 1: Choose from CMST 2060, CMST 2061 or CMST 2064. A Communication Intensive (C-I) course may be substituted for the Oral and Written Communication Requirement with permission from an academic advisor.

<sup>3</sup> - Business students cannot receive credit for ACCT 2000, ECON 2030, FIN 3715 or ISDS 1100.

 <sup>4</sup> - Oral and Written Communication Requirement 2: Choose from CMST 2060, CMST 2061 or CMST 4113.
 A Communication Intensive (C-I) course may be substituted for the Oral and Written Communication Requirement with permission from an academic advisor.

<sup>5</sup> - BUSINESS ELECTIVES: select from the 3000 or 4000 level offerings of the following departments -- ACCT, BADM, BLAW, ECON, FIN, GBUS, MGT, MKT, and ISDS.

ENTREPRENEURSHIP ELECTIVES: Students must have six hours of ENTR 3000/4000 level coursework, and nine hours from EIS Department list of approved Entrepreneurship electives.

<sup>6</sup> - ELECTIVES: See "Electives" under "Degree Requirements of the College."

# Information Systems and Decision Sciences, BS

# Information Systems and Decision Sciences

### **CRITICAL REQUIREMENTS**

<u>SEMESTER 1</u>: "C" or better in ENGL 1001, MATH 1021; 2.3 cumulative GPA

<u>SEMESTER 2</u>: "C" or better in ISDS 1102, MATH 1431; 2.3 business GPA; 2.6 cumulative GPA

<u>SEMESTER 3</u>: "C" or better in ACCT 2001, ECON 2000; 2.3 business GPA; 2.6 cumulative GPA

<u>SEMESTER 4</u>: ECON 2010; ISDS 2000; Admission to the College; 2.3 business GPA; 2.6 cumulative GPA

SEMESTER 5: "C" or better in ENGL 2000; ACCT 2101

# Semester 1

**CRITICAL:** "C" or better in ENGL 1001, MATH 1021; 2.3 Cumulative GPA.

- ECON 2000 Principles of Microeconomics (3)
- ENGL 1001 English Composition (3)
- ISDS 1102 Introduction to Management Information Systems for Business Majors (3)
- MATH 1021 College Algebra (3)
- General Education course Natural Sciences (3)<sup>1</sup>

# **Total Semester Hours: 15**

# Semester 2

**CRITICAL:** "C" or better in ISDS 1102 and MATH 1431; 2.3 Business GPA; 2.6 Cumulative GPA.

- ACCT 2001 Introductory Financial Accounting (3)
- MATH 1431 Calculus with Business and Economic Applications (3)
- Oral and Written Communication Requirement 1 (3)<sup>2</sup>
- General Education course Humanities (3)
- General Education course Natural Sciences (3)<sup>1</sup>

**Total Semester Hours: 15** 

# Semester 3

**CRITICAL:** "C" or better in ACCT 2001, ECON 2000; 2.3 Business GPA; 2.6 Cumulative GPA.

- ECON 2010 Principles of Macroeconomics (3)
- ISDS 2000 Business Statistics and Analytics I (3)
- ACCT 2101 Introductory Managerial Accounting (3) <sup>3</sup>
- General Education course Arts (3)
- General Education course Humanities (3)

# Total Semester Hours: 15

# Semester 4

**CRITICAL:** ISDS 2000; ECON 2010; Admission to the College; 2.3 Business GPA; 2.6 Cumulative GPA.

- ECON 2035 Money, Banking and Macroeconomic Activity (3) <sup>3</sup>
- ENGL 2000 English Composition (3)
- ISDS 2001 Business Statistics and Analytics II
   (3)
- FIN 3716 Financial Management (3)
- Oral and Written Communication Requirement 2 (3)<sup>4</sup>

# Total Semester Hours: 15

# Semester 5

**CRITICAL:** "C" or better in ENGL 2000; ACCT 2101.

- BLAW 3201 Business Law (3)
- ISDS 3100 Foundations of Information Systems (3) <sup>3</sup>
- ISDS 3115 Introduction to Operations Management (3)
- MKT 3401 Principles of Marketing (3)
- Business Elective (3000/4000-level) (3)<sup>5</sup>

# Total Semester Hours: 15

# Semester 6

- ISDS 3110 Data and Information Management (3)
- ISDS 3107 Design of Information Systems Solutions (3)<sup>3</sup>
- MGT 3200 Principles of Management (3)
- Business Elective (3000/4000-level) (3)<sup>5</sup>
- Elective (3)<sup>6</sup>

# Total Semester Hours: 15

# Semester 7

- ISDS 4113 Management of Information Systems Projects (3)
- ISDS 4120 Enterprise Architecture (3)
- Approved ISDS Electives (3)
- General Education course Humanities (3)
- General Education course Natural Sciences (3)<sup>1</sup>

# Total Semester Hours: 15

# Semester 8

- MGT 3830 Strategic Management (3)
- ISDS 4125 Analysis and Design of Information Systems (3)
- Approved ISDS Electives (6)
- Elective  $(3)^6$

# Total Semester Hours: 15

# 120 Total Sem. Hrs.

<sup>1</sup> - GENERAL EDUCATION NATURAL SCIENCE REQUIREMENT: If two course sequence is taken in the physical science, the additional three hour course must be taken from the life sciences, and vice versa.

<sup>2</sup> - Oral and Written Communication Requirement 1: Choose from CMST 2060, CMST 2061 or CMST 2064. A Communication Intensive (C-I) course may be substituted for the Oral and Written Communication Requirement with permission from an academic advisor.

<sup>3</sup> - Business students cannot receive credit for ACCT 2000, ECON 2030, FIN 3715 or ISDS 1100.

<sup>4</sup> - Oral and Written Communication Requirement 2: Choose from CMST 2060, CMST 2061 or CMST 4113. A Communication Intensive (C-I) course may be substituted for the Oral and Written Communication Requirement with permission from an academic advisor.

<sup>5</sup> - BUSINESS ELECTIVES: select from the 3000 or 4000 level offerings of the following departments -- ACCT, BADM, BLAW, ECON, FIN, GBUS, MGT, MKT, and ISDS.

<sup>6</sup> - ELECTIVES: See "Electives" under "Degree Requirements of the College." A list of approved ISDS electives is available from the Stephenson Department of Entrepreneurship & Information Systems.

#### **Analytics Minor**

To graduate with a *minor in analytics*, students must complete 18 hours consisting of the following courses: ISDS 2000, ISDS 2001, ISDS 3110, ISDS 4112, ISDS 4141, and ISDS 4180. Students must have a 2.0 GPA in the courses used to satisfy the minor. At least nine semester hours must be taken on this campus and, of the nine hours, at least three must be at the 3000 or 4000 level.

#### **Entrepreneurship Minor**

To graduate with a *minor in entrepreneurship*, students must complete 15 hours consisting of the following courses: ENTR 2000; ENTR 3012; ENTR 3111; and six additional hours to be chosen from departmentally approved electives. Students must have a 2.0 GPA in the courses used to satisfy the minor. At least nine semester hours must be taken on this campus and, of the nine hours, at least three must be at the 3000 or 4000 level. The entrepreneurship minor is **NOT** available to students majoring in Entrepreneurship.

#### **Information Technology Management Minor**

To graduate with a *minor in Information Technology Management*, students must complete 15 hours consisting of the following courses: ISDS 3100; ISDS 3107; ISDS 3110; and six additional hours to be chosen from departmentally approved ISDS electives. Students must have a 2.0 GPA in the courses used to satisfy the minor. At least nine semester hours must be taken on this campus and, of the nine hours, at least three must be at the 3000 or 4000 level. The Information Technology Management minor is **NOT** available to students majoring in ISDS.

# **Rucks Department of Management**

OFFICEBusiness Education Complex, Suite 2700TELEPHONE225-578-6101FAX225-578-6140E-MAILmanagement@lsu.eduWEBSITEbusiness.lsu.edu/management

# What is Management?

Management is the process of getting activities completed efficiently and effectively with, and through, other people. Planning, organizing, staffing, directing, coordinating, reporting, and budgeting are all key factors and aspects of the overall function of an organization's management. The Rucks Department of Management creates and disseminates knowledge about how managers leverage resources – especially human resources – to achieve organizational goals.

# **Opportunities in Management**

Areas: Office Systems, Operations, Personnel, Production, Quality Control

**Employers:** Organizational Behavior, Human Resources, Strategy, Entrepreneurship, Industrial/Labor Relations, International Management

# **BS** in Management

The bachelor of science in management is a 120-hour program with several learning objectives for students:

- Evaluate a firm's competitive environment.
- Evaluate a firm's resources and capabilities.
- Identify important managerial issues.
- Address issues of implementation.
- Communicate managerial issues and arguments effectively.

Refer to the E. J. Ourso College section for admission requirements.

# Management, BS

# Areas of Concentration

An upper division honors program for qualified management majors is available. Interested students should contact the Rucks Department of Management for additional information.

# Human Resource Management

#### **CRITICAL REQUIREMENTS**

<u>SEMESTER 1</u>: "C" or better in ENGL 1001, MATH 1021; 2.3 cumulative GPA

<u>SEMESTER 2</u>: "C" or better in ISDS 1102, MATH 1431; 2.3 business GPA; 2.6 cumulative GPA

<u>SEMESTER 3</u>: "C" or better in ACCT 2001, ECON 2000; 2.3 business GPA; 2.6 cumulative GPA

<u>SEMESTER 4</u>: ECON 2010; ISDS 2000; Admission to the College; 2.3 business GPA; 2.6 cumulative GPA

SEMESTER 5: "C" or better in ENGL 2000; ACCT 2101

#### Semester 1

**CRITICAL:** "C" or better in ENGL 1001,MATH 1021; 2.3 Cumulative GPA.

- ECON 2000 Principles of Microeconomics (3)
- ENGL 1001 English Composition (3)
- ISDS 1102 Introduction to Management Information Systems for Business Majors (3)
- MATH 1021 College Algebra (3)
- General Education course Natural Sciences (3)<sup>1</sup>

#### **Total Semester Hours: 15**

#### Semester 2

**CRITICAL:** "C" or better in ISDS 1102, MATH 1431; 2.3 Business GPA; 2.6 Cumulative GPA.

- ACCT 2001 Introductory Financial Accounting (3)
- MATH 1431 Calculus with Business and Economic Applications (3)

- Oral and Written Communication Requirement 1 (3)<sup>2</sup>
- General Education course Humanities (3)
- General Education course Natural Sciences (3)<sup>1</sup>

#### **Total Semester Hours: 15**

#### Semester 3

**CRITICAL:** "C" or better in ACCT 2001, ECON 2000; 2.3 Business GPA; 2.6 Cumulative GPA.

- ACCT 2101 Introductory Managerial Accounting (3) <sup>3</sup>
- ECON 2010 Principles of Macroeconomics (3)
- ISDS 2000 Business Statistics and Analytics I (3)
- General Education course Arts (3)
- General Education course Humanities (3)

#### **Total Semester Hours: 15**

#### Semester 4

**CRITICAL:** ISDS 2000; ECON 2010; Admission to the College; 2.3 Business GPA; 2.6 Cumulative GPA.

- ENGL 2000 English Composition (3)
- ISDS 2001 Business Statistics and Analytics II
   (3)
- Oral and Written Communication Requirement 2 (3)<sup>2</sup>
- General Education course Natural Sciences (3)<sup>1</sup>
- Elective  $(3)^4$

#### **Total Semester Hours: 15**

#### Semester 5

**CRITICAL:** "C" or better in ENGL 2000; ACCT 2101.

- BLAW 3201 Business Law (3)
- FIN 3716 Financial Management (3)
- ISDS 3115 Introduction to Operations Management (3)
- MGT 3200 Principles of Management (3)

• MKT 3401 Principles of Marketing (3)

#### **Total Semester Hours: 15**

#### Semester 6

- MGT 3320 Strategic Human Resource Management (3)
- MGT 3513 Negotiation and Dispute Resolution (3)
- MGT 4620 Organizational Behavior (3)
- ECON 2035 Money, Banking and Macroeconomic Activity (3)<sup>3</sup>
- Business Elective (3000/4000-level) (3)<sup>4</sup>

#### Total Semester Hours: 15

#### Semester 7

- Human Resource Management Concentration Courses (6)<sup>4</sup>
- General Education course Humanities (3)
- Approved MGT Elective (3)<sup>4</sup>
- Business Elective (3000/4000-level) (3)<sup>4</sup>

#### **Total Semester Hours: 15**

#### Semester 8

- MGT 3830 Strategic Management (3)
- Human Resource Management Course (3)<sup>4</sup>
- Approved MGT Elective (3)<sup>4</sup>
- Elective (6)<sup>4</sup>

#### **Total Semester Hours: 15**

#### 120 Total Sem. Hrs.

<sup>1</sup> - GENERAL EDUCATION NATURAL SCIENCE REQUIREMENT: If two course sequence is taken in the physical science, the additional three hour course must be taken from the life sciences, and vice versa.

<sup>2</sup> - Oral and Written Communication Requirement 1: Choose from CMST 2060, CMST 2061 or CMST 2064.

Oral and Written Communication Requirement 2: Choose from CMST 2060, CMST 2061 or CMST 4113. A Communication Intensive (C-I) course may be substituted for the Oral and Written Communication Requirement with permission from an academic advisor.

<sup>3</sup> - Business students cannot receive credit for ACCT 2000, ECON 2030, FIN 3715 or ISDS 1100.

<sup>4</sup> - APPROVED MANAGEMENT ELECTIVES: A list of approved electives is available from the Rucks Department of Management and is posted on the Rucks Department of Management website.

BUSINESS ELECTIVES: to be selected from the 3000 or 4000 level offerings of the following departments: ACCT, BADM, BLAW, ECON, FIN, GBUS, MGT, MKT and ISDS.

ELECTIVES: See "Electives" under "Degree Requirements of the College."

HUMAN RESOURCE MANAGEMENT CONCENTRATION COURSES: To be selected from MGT 4322, MGT 4323, MGT 4500, and MGT 4523.

### International Management

#### **CRITICAL REQUIREMENTS**

<u>SEMESTER 1</u>: "C" or better in ENGL 1001, MATH 1021; 2.3 cumulative GPA

<u>SEMESTER 2</u>: "C" or better in ISDS 1102, MATH 1431; 2.3 business GPA; 2.6 cumulative GPA

<u>SEMESTER 3</u>: "C" or better in ACCT 2001, ECON 2000; 2.3 business GPA; 2.6 cumulative GPA

<u>SEMESTER 4</u>: ECON 2010; ISDS 2000; Admission to the College; 2.3 business GPA; 2.6 cumulative GPA

SEMESTER 5: "C" or better in ENGL 2000; ACCT 2101

#### Semester 1

**CRITICAL:** "C" or better in ENGL 1001, MATH 1021; 2.3 Cumulative GPA.

- ECON 2000 Principles of Microeconomics (3)
- ENGL 1001 English Composition (3)
- ISDS 1102 Introduction to Management Information Systems for Business Majors (3)
- MATH 1021 College Algebra (3)
- General Education course Natural Sciences (3)<sup>1</sup>

#### **Total Semester Hours: 15**

#### Semester 2

**CRITICAL:** "C" or better in ISDS 1102, MATH 1431; 2.3 Business GPA; 2.6 Cumulative GPA.

- ACCT 2001 Introductory Financial Accounting (3)
- MATH 1431 Calculus with Business and Economic Applications (3)
- Oral and Written Communication Requirement 1 (3)<sup>2</sup>
- General Education course Humanities (3)
- General Education course Natural Sciences (3)<sup>1</sup>

#### Total Semester Hours: 15

#### Semester 3

**CRITICAL:** "C" or better in ACCT 2001; ECON 2000; 2.3 Business GPA; 2.6 Cumulative GPA.

- ACCT 2101 Introductory Managerial Accounting (3) <sup>3</sup>
- ECON 2010 Principles of Macroeconomics (3)
- ISDS 2000 Business Statistics and Analytics I (3)
- General Education course Arts (3)
- General Education course Humanities (3)

#### Total Semester Hours: 15

#### Semester 4

**CRITICAL:** ISDS 2000; ECON 2010; Admission to the College; 2.3 Business GPA; 2.6 Cumulative GPA.

- ENGL 2000 English Composition (3)
- ISDS 2001 Business Statistics and Analytics II
   (3)
- Oral and Written Communication Requirement 2 (3)<sup>2</sup>
- General Education course Natural Sciences (3)<sup>1</sup>
- Elective (3)<sup>5</sup>

#### Total Semester Hours: 15

### Semester 5

# **CRITICAL:** "C" or better in ENGL 2000; ACCT 2101

- BLAW 3201 Business Law (3)
- FIN 3716 Financial Management (3)
- ISDS 3115 Introduction to Operations Management (3)
- MGT 3200 Principles of Management (3)
- MKT 3401 Principles of Marketing (3)

#### **Total Semester Hours: 15**

#### Semester 6

- MGT 3320 Strategic Human Resource Management (3)
- MGT 4620 Organizational Behavior (3)
- MGT 3513 Negotiation and Dispute Resolution (3)
- ECON 2035 Money, Banking and Macroeconomic Activity (3) <sup>3</sup>
- Business Elective (3000/4000-level) (3)<sup>4</sup>

#### **Total Semester Hours: 15**

#### Semester 7

- International Management Concentration Courses (6)<sup>4</sup>
- General Education course Humanities (3)
- Approved MGT Elective (3)<sup>4</sup>
- Business Elective (3000/4000-level) (3)<sup>4</sup>

#### Total Semester Hours: 15

#### Semester 8

- MGT 3830 Strategic Management (3)
- International Management Concentration Courses (3)<sup>4</sup>
- Approved MGT Elective (3)<sup>4</sup>
- Elective (6)<sup>5</sup>

#### **Total Semester Hours: 15**

#### 120 Total Sem. Hrs.

<sup>1</sup> - GENERAL EDUCATION NATURAL SCIENCE REQUIREMENT: If two course sequence is taken in the physical science, the additional three hour course must be taken from the life sciences, and vice versa.

<sup>2</sup> - Oral and Written Communication Requirement 1: Choose from CMST 2060, CMST 2061, or CMST 2064

Oral and Written Communication Requirement 2: Choose from CMST 2060, CMST 2061, or CMST 4113

A Communication Intensive (C-I) course may be substituted for the Oral and Written Communication Requirement with permission from an academic advisor.

<sup>3</sup> - Business students cannot receive credit for ACCT 2000, ECON 2030, FIN 3715, or ISDS 1100

<sup>4</sup> - APPROVED MANAGEMENT ELECTIVES: See management advisor for list of Management electives.

BUSINESS ELECTIVES: to be selected from the 3000 or 4000 level offerings of the following departments: ACCT, BADM, BLAW, ECON, FIN, GBUS, MGT, MKT and ISDS.

INTERNATIONAL MANAGEMENT CONCENTRATION COURSES: To be selected from MGT 4430, MGT 4440, MGT 4450, and MGT 4820

<sup>5</sup> - ELECTIVES: See "Electives" under "Degree Requirements of the College."

# Strategic Leadership

<u>SEMESTER 1</u>: "C" or better in ENGL 1001, MATH 1021; 2.3 cumulative GPA

<u>SEMESTER 2</u>: "C" or better in ISDS 1102, MATH 1431; 2.3 business GPA; 2.6 cumulative GPA

<u>SEMESTER 3</u>: "C" or better in ACCT 2001, ECON 2000; 2.3 business GPA; 2.6 cumulative GPA

<u>SEMESTER 4</u>: ECON 2010; ISDS 2000; Admission to the College; 2.3 business GPA; 2.6 cumulative GPA

SEMESTER 5: "C" or better in ENGL 2000; ACCT 2101

Semester 1

# **CRITICAL:** "C" or better in ENGL 1001, MATH 1021; 2.3 Cumulative GPA.

- ECON 2000 Principles of Microeconomics (3)
- ENGL 1001 English Composition (3)
- ISDS 1102 Introduction to Management Information Systems for Business Majors (3)
- MATH 1021 College Algebra (3)
- General Education course Natural Sciences (3)<sup>1</sup>

#### **Total Semester Hours: 15**

#### Semester 2

**CRITICAL:** "C" or better in ISDS 1102, MATH 1431; 2.3 Business GPA; 2.6 Cumulative GPA.

- ACCT 2001 Introductory Financial Accounting (3)
- MATH 1431 Calculus with Business and Economic Applications (3)
- Oral and Written Communication Requirement 1 (3)<sup>2</sup>
- General Education course Humanities (3)
- General Education course Natural Sciences (3)<sup>1</sup>

#### **Total Semester Hours: 15**

#### Semester 3

**CRITICAL:** "C" or better in ACCT 2001; ECON 2000; 2.3 Business GPA; 2.6 Cumulative GPA.

- ACCT 2101 Introductory Managerial Accounting (3) <sup>3</sup>
- ECON 2010 Principles of Macroeconomics (3)
- ISDS 2000 Business Statistics and Analytics I (3)
- General Education course Arts (3)
- General Education course Humanities (3)

#### **Total Semester Hours: 15**

#### Semester 4

**CRITICAL:** ISDS 2000; ECON 2010; Admission to the College; 2.3 Business GPA; 2.6 Cumulative GPA.

- ENGL 2000 English Composition (3)
- ISDS 2001 Business Statistics and Analytics II (3)
- Oral and Written Communication Requirement 2 (3)<sup>2</sup>
- General Education course Natural Sciences (3)<sup>1</sup>
- Elective (3)<sup>5</sup>

#### Semester 5

"C" or better in ENGL 2000; ACCT 2101

- BLAW 3201 Business Law (3)
- FIN 3716 Financial Management (3)
- ISDS 3115 Introduction to Operations Management (3)
- MGT 3200 Principles of Management (3)
- MKT 3401 Principles of Marketing (3)

#### Total Semester Hours: 15

#### Semester 6

- MGT 3320 Strategic Human Resource Management (3)
- MGT 4620 Organizational Behavior (3)
- MGT 3513 Negotiation and Dispute Resolution (3)
- ECON 2035 Money, Banking and Macroeconomic Activity (3) <sup>3</sup>
- Business Elective (3000/4000-level) (3)<sup>4</sup>

#### Total Semester Hours: 15

#### Semester 7

- Strategic Leadership Concentration Courses (6)<sup>4</sup>
- General Education course Humanities (3)
- Approved MGT Elective (3)<sup>4</sup>
- Business Elective (3000/4000-level) (3)<sup>4</sup>

#### **Total Semester Hours: 15**

#### Semester 8

- MGT 3830 Strategic Management (3)
- Strategic Leadership Concentration Courses (3)<sup>4</sup>
- Approved MGT Elective (3)<sup>4</sup>
- Elective (6)<sup>5</sup>

#### **Total Semester Hours: 15**

#### 120 Total Sem. Hrs.

<sup>1</sup> - GENERAL EDUCATION NATURAL SCIENCE REQUIREMENT: If two course sequence is taken in the physical science, the additional three hour course must be taken from the life sciences, and vice versa.

<sup>2</sup> - Oral and Written Communication Requirement 1: Choose from CMST 2060, CMST 2061, or CMST 2064

Oral and Written Communication Requirement 2: Choose from CMST 2060, CMST 2061, or CMST 4113

A Communication Intensive (C-I) course may be substituted for the Oral and Written Communication Requirement with permission from an academic advisor.

<sup>3</sup> - Business students cannot receive credit for ACCT 2000, ECON 2030, FIN 3715, or ISDS 1100

<sup>4</sup> - APPROVED MANAGEMENT ELECTIVES: See management advisor for list of Management electives.

BUSINESS ELECTIVES: to be selected from the 3000 or 4000 level offerings of the following departments: ACCT, BADM, BLAW, ECON, FIN, GBUS, MGT, MKT and ISDS.

STRATEGIC LEADERSHIP CONCENTRATION COURSES: To be selected from MGT 3211, MGT 4820, MGT 4830, and MGT 4840

<sup>5</sup> - ELECTIVES: See "Electives" under "Degree Requirements of the College."

# **Department of Marketing**

<b>.</b>	0
OFFICE	Business Education Complex, Suite 2100
TELEPHONE	225-578-8684
FAX	225-578-8616
E-MAIL	marketing@lsu.edu
WEBSITE	http://www.lsu.edu/business/marketing/index.php

# What is Marketing?

Marketing is an organizational function and a set of processes that performs customer needs analysis, executes product/services design, devises branding strategy, establishes pricing, accomplishes promotion, and creates a distribution system while maintaining a competitive advantage. The Department of Marketing educates and prepares students for each of these functions by stressing "hands-on" learning in their courses, which utilize real-world or simulated real-world projects.

# **Opportunities in Marketing**

Areas: Advertising, Brand/Product Management, Planning/Research, Retailing, Sales/Management

**Employers:** Consumer Product Companies, Financial Institutions, Insurance Agencies, Manufacturers, Pharmaceutical Companies, Retail Establishments, Service Industries

# **B.S.** in Marketing

The bachelor of science in marketing is a 120-hour degree program with several learning objectives for students:

- Demonstrate an understanding of market segmentation and targeting
- Demonstrate an understanding of consumer behavior
- Demonstrate an understanding of marketing research and ethical considerations in marketing
- Demonstrate an understanding of relationship management
- Demonstrate an understanding of strategic planning
- Demonstrate an understanding of global marketing

Refer to the E. J. Ourso College section for admission requirements.

## Marketing, BS

# Marketing

#### **CRITICAL REQUIREMENTS**

<u>SEMESTER 1</u>: "C" or better in ENGL 1001, MATH 1021; 2.3 cumulative GPA

<u>SEMESTER 2</u>: "C" or better in ISDS 1102, MATH 1431; 2.3 business GPA; 2.6 cumulative GPA

<u>SEMESTER 3</u>: "C" or better in ACCT 2001, ECON 2000; 2.3 business GPA; 2.6 cumulative GPA

<u>SEMESTER 4</u>: ECON 2010; ISDS 2000; Admission to the College; 2.3 business GPA; 2.6 cumulative GPA

SEMESTER 5: "C" or better in ENGL 2000; ACCT 2101

## Semester 1

**CRITICAL:** "C" or better in ENGL 1001, MATH 1021; 2.3 Cumulative GPA.

- ECON 2000 Principles of Microeconomics (3)
- ENGL 1001 English Composition (3)
- ISDS 1102 Introduction to Management Information Systems for Business Majors (3)
- MATH 1021 College Algebra (3)
- General Education course Natural Sciences (3)<sup>1</sup>

## **Total Semester Hours: 15**

#### Semester 2

**CRITICAL:** "C" or better in ISDS 1102, MATH 1431; 2.3 Business GPA; 2.6 Cumulative GPA.

- ACCT 2001 Introductory Financial Accounting (3)
- MATH 1431 Calculus with Business and Economic Applications (3)
- Oral and Written Communication Requirement 1 (3)<sup>2</sup>
- General Education course Humanities (3)
- General Education course Natural Sciences (3)<sup>1</sup>

# Total Semester Hours: 15

# Semester 3

**CRITICAL:** "C" or better in ACCT 2001, ECON 2000 ; 2.3 Business GPA; 2.6 Cumulative GPA.

- ACCT 2101 Introductory Managerial Accounting (3) <sup>3</sup>
- ECON 2010 Principles of Macroeconomics (3)
- ISDS 2000 Business Statistics and Analytics I (3)
- General Education course Arts (3)
- General Education course Humanities (3)

#### **Total Semester Hours: 15**

## Semester 4

**CRITICAL:** ISDS 2000; ECON 2010 ; Admission to the College; 2.3 Business GPA; 2.6 Cumulative GPA.

- ECON 2035 Money, Banking and Macroeconomic Activity (3) <sup>3</sup>
- ENGL 2000 English Composition (3)
- ISDS 2001 Business Statistics and Analytics II
   (3)
- Oral and Written Communication Requirement 2 (3)<sup>4</sup>
- General Education course Natural Sciences (3)<sup>1</sup>

# **Total Semester Hours: 15**

# Semester 5

**CRITICAL:** "C" or better in ENGL 2000; ACCT 2101.

- BLAW 3201 Business Law (3)
- FIN 3716 Financial Management (3)
- ISDS 3115 Introduction to Operations Management (3)
- MGT 3200 Principles of Management (3)
- MKT 3401 Principles of Marketing (3)

#### **Total Semester Hours: 15**

## Semester 6

- MKT 3411 Consumer Analysis and Behavior (3)
- MKT Electives (9)<sup>6</sup>
- Elective (3)<sup>6</sup>

# Semester 7

- MKT 3413 Marketing Research (3)
- MKT Elective (3)<sup>6</sup>
- General Education course Humanities (3)
- Business Elective (3000/4000-level) (3)<sup>5</sup>
- Elective (3)<sup>6</sup>

#### Total Semester Hours: 15

# Semester 8

- MKT 4451 Marketing Management (3)
- MGT 3830 Strategic Management (3)
- MKT Elective (3)<sup>6</sup>
- Business Elective (3000/4000-level) (3)<sup>5</sup>
- Elective (3)<sup>6</sup>

# **Total Semester Hours: 15**

# 120 Total Sem. Hrs.

<sup>1</sup> - GENERAL EDUCATION NATURAL SCIENCE REQUIREMENT: If two course sequence is taken in the physical science, the additional three hour course must be taken from the life sciences, and vice versa.

 <sup>2</sup> - Oral and Written Communication Requirement 1: Choose from CMST 2060, CMST 2061 or CMST 2064.
 A Communication Intensive (C-I) course may be substituted for the Oral and Written Communication Requirement with permission from an academic advisor.

<sup>3</sup> - Business students cannot receive credit for ACCT 2000, ECON 2030, FIN 3715 or ISDS 1100.

 <sup>4</sup> - Oral and Written Communication Requirement 2: Choose from CMST 2060, CMST 2061 or CMST 4113.
 A Communication Intensive (C-I) course may be substituted for the Oral and Written Communication Requirement with permission from an academic advisor. <sup>5</sup> - BUSINESS ELECTIVES: to be selected from the 3000
 or 4000 level offerings of the following departments:
 ACCT, BADM, BLAW, ECON, FIN, GBUS, MGT, MKT, and ISDS.

<sup>6</sup> - ELECTIVES: See "Electives" under "Degree Requirements of the College."

MARKETING ELECTIVES: see Marketing advisor for list of Marketing Electives.

# Area of Concentration

# **Professional Sales**

#### **CRITICAL REQUIREMENTS**

<u>SEMESTER 1</u>: "C" or better in ENGL 1001, MATH 1021; 2.3 cumulative GPA

<u>SEMESTER 2</u>: "C" or better in ISDS 1102, MATH 1431; 2.3 business GPA; 2.6 cumulative GPA

<u>SEMESTER 3</u>: "C" or better in ACCT 2001, ECON 2000; 2.3 business GPA; 2.6 cumulative GPA

<u>SEMESTER 4</u>: ECON 2010; ISDS 2000; Admission to the College; 2.3 business GPA; 2.6 cumulative GPA

SEMESTER 5: "C" or better in ENGL 2000; ACCT 2101

#### Semester 1

**CRITICAL:** "C" or better in ENGL 1001, MATH 1021; 2.3 Cumulative GPA.

- ECON 2000 Principles of Microeconomics (3)
- ENGL 1001 English Composition (3)
- ISDS 1102 Introduction to Management Information Systems for Business Majors (3)
- MATH 1021 College Algebra (3)
- General Education Course Natural Sciences (3)<sup>1</sup>

#### **Total Semester Hours: 15**

#### Semester 2

**CRITICAL:** "C" or better in ISDS 1102, MATH 1431; 2.3 Business GPA; 2.6 Cumulative GPA.

• ACCT 2001 Introductory Financial Accounting (3)

- MATH 1431 Calculus with Business and Economic Applications (3)
- Oral and Written Communication Requirement 1 (3)<sup>2</sup>
- General Education course Humanities (3)
- General Education course Natural Sciences (3)<sup>1</sup>

#### Semester 3

**CRITICAL:** "C" or better in ACCT 2001, ECON 2000; 2.3 Business GPA; 2.6 Cumulative GPA.

- ACCT 2101 Introductory Managerial Accounting (3) <sup>3</sup>
- ECON 2010 Principles of Macroeconomics (3)
- ISDS 2000 Business Statistics and Analytics I (3)
- General Education Course- Arts (3)
- General Education Course- Humanities (3)

#### Total Semester Hours: 15

#### Semester 4

**CRITICAL:** ISDS 2000; ECON 2010; Admission to the College; 2.3 Business GPA; 2.6 Cumulative GPA.

- ECON 2035 Money, Banking and Macroeconomic Activity (3) <sup>3</sup>
- ENGL 2000 English Composition (3)
- ISDS 2001 Business Statistics and Analytics II (3)
- Oral and Written Communication Requirement 2 (3)<sup>4</sup>
- General Education course Natural Sciences (3)<sup>1</sup>

#### Total Semester Hours: 15

#### Semester 5

**CRITICAL:** "C" or better in ENGL 2000; ACCT 2101

- BLAW 3201 Business Law (3)
- FIN 3716 Financial Management (3)

- ISDS 3115 Introduction to Operations Management (3)
- MGT 3200 Principles of Management (3)
- MKT 3401 Principles of Marketing (3)

#### **Total Semester Hours: 15**

#### Semester 6

- MKT 3411 Consumer Analysis and Behavior (3)
- MKT Electives (9)<sup>6</sup>
- Elective (3)<sup>6</sup>

#### **Total Semester Hours: 15**

#### Semester 7

- MKT 3413 Marketing Research (3)
- MKT Elective (3)<sup>6</sup>
- General Education Course- Humanities (3)
- Business Elective (3000/4000 level) (3)<sup>5</sup>
- Elective (3)<sup>6</sup>

#### **Total Semester Hours: 15**

#### Semester 8

- MKT 4451 Marketing Management (3)
- MGT 3830 Strategic Management (3)
- MKT Elective (3)<sup>6</sup>
- Business Elective (3000/4000 level) (3)<sup>5</sup>
- Elective (3)<sup>6</sup>

Total Semester Hours: 15

#### 120 Total Sem. Hrs.

#### <sup>1</sup> - GENERAL EDUCATION NATURAL SCIENCE REQUIREMENT: If two course sequence is taken in the physical science, the additional three hour course must be taken from the life sciences, and vice versa.

<sup>2</sup> - Oral and Written Communication Requirement 1: Choose from CMST 2060, CMST 2061 or CMST 2064. A Communication Intensive (C-I) course may be substituted for the Oral and Written Communication Requirement with permission from an academic advisor. <sup>3</sup> - Business students cannot receive credit for ACCT 2000, ECON 2030, FIN 3715 or ISDS 1100.

<sup>4</sup> - Oral and Written Communication Requirement 2: Choose from CMST 2060, CMST 2061 or CMST 4113. A Communication Intensive (C-I) course may be substituted for the Oral and Written Communication Requirement with permission from an academic advisor.

 <sup>5</sup> - BUSINESS ELECTIVES: to be selected from the 3000 or 4000 level offerings of the following departments:
 ACCT, BADM, BLAW, ECON, FIN, GBUS, MGT, MKT, and ISDS.

<sup>6</sup> - ELECTIVES: See "Electives" under "Degree Requirements of the College."

MARKETING

PROFESSIONAL SALES CONCENTRATION ELECTIVES: Students must complete MKT 3427, MKT 4423, and either MKT 4478 or MKT 4479 to satisfy the requirements of the concentration.

# Public Administration Institute (Interdepartmental Program)

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WEBSITE	business.lsu.edu/pai
E-MAIL	pai@lsu.edu

The Public Administration Institute (PAI) provides outstanding educational opportunities through its Master of Public Administration (MPA) degree program. The MPA program is designed for individuals seeking management careers in public service and is aligned to meet the needs of both those who have recently completed their undergraduate studies and experienced professionals seeking to advance their careers. Graduates of the MPA program have gone on to successful careers in the public, private and nonprofit employment sectors and have accepted positions both nationally and internationally. Among many varied accomplishments, recent graduates have secured professional positions with the U.S. federal government's Presidential Management Fellows Program, the Louisiana House of Representatives, the Louisiana Public Service Commission, and the Public Affairs Research Council of Louisiana.

The Public Administration Institute coordinates a dual MPA/JD degree program with the Paul M. Hebert Law Center. See "The Graduate School" section for more information.

# **College of the Coast & Environment**

CHRISTOPHER D'ELIA	RICHARD F. SHAW	
Dean	Associate Dean	
LEAH D. COURVILLE	KAM-BIU LIU	
Assistant Dean	Chair, Department of Oceanography & Coastal Sciences	
KEVIN ARMBRUST	VINCENT L. WILSON	
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# **Departments and Curricula**

- Departmental of Environmental Sciences
- Department of Oceanography & Coastal Sciences

The *College of the Coast & Environment* (SC&E) includes two academic departments - Department of Environmental Sciences and Department of Oceanography & Coastal Sciences. The college administers undergraduate and graduate degrees and facilitates the development of innovative research programs leading to a better understanding of coastal and environmental systems worldwide.

The *B.S.* degree program in *Coastal Environmental Science* is the only academic program focusing on coastal environmental sciences in the Southern Gulf states. This degree program provides undergraduates with a solid math and science based curriculum that prepares students for graduate programs in a broad choice of advanced fields of study, professional programs in medicine, veterinary medicine, dentistry, or law, and careers in environmental sciences, environmental planning and management, oceanography, coastal and marine sciences, and wetland studies. During the junior and senior years, students may choose one of four areas of specialty for their upper division courses and have the opportunity to perform an independent research project in an environmental or coastal science related field. Diversity in the upper division curriculum enables students to focus on courses and areas of study that will help them pursue their desired future careers, whether that is in additional biological and medical studies, environmental toxicology, environmental chemistry, coastal restoration and management, or environmental law. This undergraduate degree program is hosted jointly by the Department of Environmental Sciences and the Department of Oceanography & Coastal Sciences.

The College of the Coast & Environment and the LSU Law School share faculty and programs in environmental law, energy, and the environment.

For specific information concerning undergraduate degree requirements for the *BS* in *Coastal Environmental Science*, refer to the curriculum within the departmental sections above. Detailed information about graduate degree programs in Environmental Sciences or Oceanography & Coastal Sciences may be found in "The Graduate School" section.

# **Admission Requirements**

Students who are considering a BS in Coastal Environmental Science should pay special attention to the mathematics and science courses they select and should consult a representative of the program prior to their initial registration. Students will be admitted to the program when they have earned 24 or more semester hours of credit in courses numbered 1000 or higher; maintained a GPA of at least 2.00 on both LSU and cumulative averages; and have passed all courses in mathematics and science with a grade of "C" or better, or received special approval from the dean of the college.

Students transferring from another institution must meet university transfer admission requirements. Transfer students must also meet the current admission requirements of the college and receive approval from the dean of the college.

Students who, after initial enrollment in this college, wish to obtain credit for courses taken at other accredited institutions, and who plan to use this course credit toward their degree requirements, must obtain approval from the dean.

# **Degree Requirements**

It is the student's responsibility to qualify for the bachelor's degree by meeting the following requirements:

- Meet the university's general education course requirements.
- Achieve a "C" or better in all science and mathematics requirements.
- Achieve a 2.00 GPA, as required by the university, for all work taken at LSU and on all work attempted at U.S. institutions.
- Successfully complete a minimum of 30 hours of residence in the Coastal Environmental Science program. These hours are included in the university requirement that a minimum of 25 percent of hours applied toward the degree be earned at LSU.
- Six hours of ROTC may be allowed for degree credit as long as they are taken at 3000-level or above.

# **Minor Field Requirements (Optional)**

The Department of Oceanography and Coastal Sciences offers a minor in *oceanography and coastal sciences*. Students majoring in Coastal Environmental Science may *not* choose oceanography and coastal sciences as a minor.

The Department of Environmental Sciences offers undergraduate minors in environmental sciences and environmental toxicology. The environmental sciences minor provides students with a background in fields of science immediately relevant to problems facing modern society. Students majoring in diverse fields of study will gain an understanding of the broad field of environmental sciences. The environmental toxicology minor provides students with a background in the basic science of chemical, physical, and environmental hazards immediately relevant to problems facing modern society and human health risks. Students majoring in diverse fields of study will gain an understanding of the field of Environmental Toxicology. Students majoring in Coastal Environmental Science may not choose environmental sciences minor or the environmental toxicology minor.

It should be noted that students majoring in Coastal Environmental Science may be eligible for undergraduate minors in both *chemistry* and *biological sciences* depending upon the courses selected. See the "College of Science" curriculum notes for specific requirements regarding minors in these programs.

# **College Probation**

A student in the College of the Coast & Environment who fails to earn a 2.00 semester GPA in a regular semester will be placed on college probation. In addition, students who fail to meet the college academic requirements noted in the section on degree requirements, or who enter the college with deficiencies, may be placed on college probation. At the discretion of the dean, a student who is on college probation and fails to meet the academic requirements, including earning a 2.00 or better semester GPA, may be declared ineligible to continue in the college at the end of a regular semester. A student on college probation who does earn a 2.00 or better semester GPA, who remediates course deficiencies, and who makes satisfactory progress in the degree program will be removed from college probation at the end of a regular semester or summer term.

# **Undergraduate Career Plan**

Students are encouraged to enrich their studies and prepare for their careers by using the Four Year Career Plan in addition to their academic course of study.

# **Department of Environmental Sciences**

OFFICE	1273 Energy, Coast & Environment Building	
TELEPHONE	225-578-8521	
FAX	225-578-4286	
E-MAIL	envs@lsu.edu	
WEBSITE	www.environmental.lsu.edu	
The Donauturant of Empireum antal Sciences is a multidisciplinamy		

The *Department of Environmental Sciences* is a multidisciplinary research and academic unit whose mission is to provide the academic talents and knowledge needed to solve environmental problems that are important to Louisiana, the Gulf of Mexico region, and comparable areas throughout the nation and the world.

The department is committed to undergraduate and graduate education and offers a variety of courses relating to the environment. Faculty from other academic units participate in teaching some of the department's courses. Likewise, departmental faculty serve as adjunct faculty in several departments that offer bachelor, master, and doctoral programs.

At the graduate level, the Department offers the MS and PhD in environmental sciences and a PhD minor in environmental sciences. In order to provide students with a holistic training to meet today's environmental challenges, the graduate curriculum is organized according to three priority areas: (a) Biophysical Systems (coupled biological and physical systems); (b) Environmental Planning and Management (coupled human and natural systems); and (c) Environmental Assessment and Analysis (coupled people and technology). The MS program consists of thesis and professional options.

In addition, the department jointly offers, with the Department of Oceanography & Coastal Sciences, a minor in wetlands science and management at the graduate level. Collaborative graduate programs with Southern University and LSU-Shreveport are also available.

Research activities within the department include environmental assessment and resource sustainability, environmental microbial ecology, molecular phylogenetics, water pollution and water quality, phytoplankton ecology, bioremediation, environmental management, environmental toxicology, genetic toxicology, environmental regulations, policy development, hazardous waste management, development of mobile analytical instrumentation, the environmental impact of toxic chemicals, remote sensing, geographic information science, environmental health, and environmental decision-making.

For additional information, see the section "The Graduate School" in this catalog and the Department of Environmental Sciences website.

An undergraduate major in coastal environmental science (a Bachelor of Science degree) is offered through the department. The degree is jointly hosted with the Department of Oceanography & Coastal Sciences.

# Coastal Environmental Science, B.S. CES.

# Areas of Concentration

# Applied Coastal Environmental Science

# **CRITICAL REQUIREMENTS**

SEMESTER 1: Credit in MATH 1022/MATH 1023; 2.0 Cumulative and LSU GPA.

SEMESTER 2: "C" or better in CHEM 1201; "C" or better in ENGL 1001 or ENGL 1004; 2.0 Cumulative and LSU GPA.

SEMESTER 3: "C" or better in BIOL 1201; 2.0 Cumulative and LSU GPA.

SEMESTER 4: "C" or better in MATH 1550; 2.0

Cumulative and LSU GPA.

SEMESTER 5: "C" or better in EXST 2201; 2.0 Cumulative and LSU GPA.

# Semester 1

**CRITICAL:** Credit in MATH 1022/MATH 1023; 2.0 Cumulative and LSU GPA.

- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)
- CHEM 1201 General Chemistry I (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- ENVS 1126 Introduction to Environmental Sciences (3) or
- ENVS 1127 HONORS: Introduction to Environmental Sciences (3)
- ENVS 1010 Introduction to Coastal Environmental Science (1) or
- OCS 1010 Introduction to Coastal Environmental Science (1)

Total Semester Hours: 16

# Semester 2

**CRITICAL:** "C" or better in CHEM 1201; "C" or better in ENGL 1001 or ENGL 1004; 2.0 Cumulative and LSU GPA.

- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1)
- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- ENGL 1001 English Composition (3)
- General Education course Arts (3)

Total Semester Hours: 15

# Semester 3

**CRITICAL:** "C" or better in BIOL 1201; 2.0 Cumulative and LSU GPA.

- CHEM 2261 Organic Chemistry (3)
- ENGL 2000 English Composition (3)
- OCS 2007 Introduction to Marine Sciences: Geological and Physical (3)
- EXST 2201 Introduction to Statistical Analysis (4)
- Approved Electives (2)

# Total Semester Hours: 15

# Semester 4

**CRITICAL:** "C" or better in MATH 1550; 2.0 Cumulative and LSU GPA.

- CHEM 2001 Analytical Chemistry (3)
- CHEM 2002 Analytical Chemistry Laboratory (1)
- OCS 2011 Introduction to MATLAB for Coastal Sciences (3)
- OCS 2008 Introduction to Marine Sciences: Life Processes (3)
- BIOL 2051 General Microbiology (4) or
- BIOL 2153 Principles of Genetics (4) or
- GEOG 2200 Hazards, Disasters and the Environment (3) or
- LA 2401 Landscape Ecology (3) or
- OCS 2050 Coastal Systems Ecology and Ecosystem Design (3) or

- RNR 2101 Ecology of Renewable Natural Resources (3)
- General Education course Social Sciences (3)

#### Semester 5

**CRITICAL:** "C" or better in EXST 2201; 2.0 Cumulative and LSU GPA.

- PHYS 2001 General Physics I (3)
- PHYS 2108 Introductory Physics Laboratory (1)
- OCS 2020 Introduction to Marine Science: Field and Laboratory Methods (2)
- EXST 3201 Statistical Analysis II (4)
- OCS 3103 Global Environmental Cycles (3)
- Approved Coastal Environmental Science Elective (3)<sup>1</sup>

#### Total Semester Hours: 16

#### Semester 6

- PHYS 2002 General Physics II (3)
- PHYS 2109 General Physics Laboratory (1)
- ENVS 3102 Mathematical Methods in Science (3)
- General Education course Humanities (3)
- Approved Electives (4)

#### Total Semester Hours: 14

#### Semester 7

- ENVS 4149 Design of Environmental Management Systems (3) or
- GEOG 4047 Geographic Information Systems (3)
- Approved Coastal Environmental Science Electives (6)<sup>1</sup>
- General Education course Social Sciences [2000-Level] (3)
- General Education course Humanities (3)

#### Total Semester Hours: 15

#### Semester 8

- ENVS 4999 Capstone in Coastal Environmental Science (1) or
- OCS 4999 Capstone in Coastal Environmental Science (1)
- Approved Coastal Environmental Science Electives (6)<sup>1</sup>
- Approved Electives (3-2)
- General Education course Humanities (3)

#### Total Semester Hours: 13-12

#### 120 Total Sem. Hrs.

<sup>1</sup> - Approved Coastal Environmental Science electives - see below.

# Environmental Science and Research

## **CRITICAL REQUIREMENTS**

SEMESTER 1: Credit in MATH 1022/MATH 1023; 2.0 Cumulative and LSU GPA. SEMESTER 2: "C" or better in CHEM 1201; "C" or better in ENGL 1001 or ENGL 1004; 2.0 Cumulative and LSU GPA. SEMESTER 3: "C" or better in BIOL 1201; 2.0 Cumulative and LSU GPA. SEMESTER 4: "C" or better in CHEM 1202; 2.0 Cumulative and LSU GPA. SEMESTER 5: "C" or better in MATH 1552; 2.0 Cumulative and LSU GPA.

#### Semester 1

# **CRITICAL:** Credit in MATH 1022/MATH 1023; 2.0 Cumulative and LSU GPA.

- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)
- CHEM 1201 General Chemistry I (3)
- MATH 1550 Analytic Geometry and Calculus I (5)

- ENVS 1126 Introduction to Environmental Sciences (3) or
- ENVS 1127 HONORS: Introduction to Environmental Sciences (3)
- ENVS 1010 Introduction to Coastal Environmental Science (1) or
- OCS 1010 Introduction to Coastal Environmental Science (1)

#### Semester 2

**CRITICAL:** "C" or better in CHEM 1201; "C" or better in ENGL 1001 or ENGL 1004; 2.0 Cumulative and LSU GPA.

- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1)
- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- ENGL 1001 English Composition (3)
- General Education course Arts (3)

#### Total Semester Hours: 15

#### Semester 3

**CRITICAL:** "C" or better in BIOL 1201; 2.0 Cumulative and LSU GPA.

- CHEM 2261 Organic Chemistry (3)
- ENGL 2000 English Composition (3)
- OCS 2007 Introduction to Marine Sciences: Geological and Physical (3)
- MATH 1552 Analytic Geometry and Calculus II (4)
- Approved Electives (2)

#### Total Semester Hours: 15

#### Semester 4

**CRITICAL:** "C" or better in CHEM 1202; 2.0 Cumulative and LSU GPA.

• CHEM 2262 Organic Chemistry (3)

- BIOL 2051 General Microbiology (4) or
- BIOL 2153 Principles of Genetics (4)
- EXST 2201 Introduction to Statistical Analysis (4) or
- MATH 2057 Multidimensional Calculus (3)
- OCS 2008 Introduction to Marine Sciences: Life Processes (3)
- General Education course Social Sciences (3)

#### Total Semester Hours: 16-17

#### Semester 5

**CRITICAL:** "C" or better in MATH 1552; 2.0 Cumulative and LSU GPA.

- CHEM 2364 Organic Chemistry Laboratory (2)
- MATH 2065 Elementary Differential Equations (3) or
- ENVS 3102 Mathematical Methods in Science (3)
- OCS 2020 Introduction to Marine Science: Field and Laboratory Methods (2)
- PHYS 2110 Particle Mechanics (3)
- PHYS 2108 Introductory Physics Laboratory (1)
- General Education course Social Sciences
   [2000-Level] (3)

#### Total Semester Hours: 14

#### Semester 6

- PHYS 2113 Fields: Gravity, Electricity, and Magnetism (3)
- PHYS 2109 General Physics Laboratory (1)
- OCS 3103 Global Environmental Cycles (3)
- ENVS 3999 Undergraduate Research (1-6) or
- OCS 3999 Undergraduate Research in Coastal Sciences (1-6)<sup>2</sup>
- General Education course Humanities (3)
- Approved CES Electives (3)

# Semester 7

- Approved Coastal Environmental Science Electives (9)<sup>1</sup>
- Approved Elective (3)
- General Education course Humanities (3)

# Total Semester Hours: 15

# Semester 8

- ENVS 4999 Capstone in Coastal Environmental Science (1) or
- OCS 4999 Capstone in Coastal Environmental Science (1)
- Approved Electives (4-3)
- Approved Coastal Environmental Science Electives (6)<sup>1</sup>
- General Education course Humanities (3)

Total Semester Hours: 14-13

# Environmental Health (3+2 program with LSUHSC School of Public Health)

# **CRITICAL REQUIREMENTS**

SEMESTER 1: Credit in MATH 1010/MATH 1023; 2.0 Cumulative and LSU GPA. SEMESTER 2: "C" or better in CHEM 1201; "C" or better in ENGL 1001 or ENGL 1004; 2.0 Cumulative and LSU GPA. SEMESTER 3: "C" or better in BIOL 1201; 2.0 Cumulative and LSU GPA. SEMESTER 4: "C" or better in CHEM 1202; 2.0 Cumulative and LSU GPA. SEMESTER 5: "C" or better in MATH 1552; 2.0

Cumulative and LSU GPA.

# Semester 1

**Critical:** Credit in MATH 1022/MATH 1023; 2.0 Cumulative and LSU GPA.

- ENVS 1010 Introduction to Coastal Environmental Science (1) or
- OCS 1010 Introduction to Coastal Environmental Science (1)
- ENVS 1126 Introduction to Environmental Sciences (3) or
- ENVS 1127 HONORS: Introduction to Environmental Sciences (3)
- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)
- CHEM 1201 General Chemistry I (3)
- MATH 1550 Analytic Geometry and Calculus I (5)

# Total Semester Hours: 16

# Semester 2

**Critical:** "C" or better in CHEM 1201; "C" or better in ENGL 1001 or ENGL 1004; 2.0 Cumulative and LSU GPA.

- ENGL 1001 English Composition (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1)
- BIOL 1202 Biology for Science Majors II (3)
- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- General Education course Arts (3)

# **Total Semester Hours: 15**

# Semester 3

**Critical:** "C" or better in BIOL 1201; 2.0 Cumulative and LSU GPA.

- ENGL 2000 English Composition (3)
- CHEM 2261 Organic Chemistry (3)
- OCS 2007 Introduction to Marine Sciences: Geological and Physical (3)
- MATH 1552 Analytic Geometry and Calculus II

   (4)
- General Education course Social Sciences (3)

# Semester 4

**Critical**: "C" or better in CHEM 1202; 2.0 Cumulative and LSU GPA.

- CHEM 2262 Organic Chemistry (3)
- OCS 2008 Introduction to Marine Sciences: Life Processes (3)
- EXST 2201 Introduction to Statistical Analysis (4)
- BIOL 2051 General Microbiology (4)

## Total Semester Hours: 14

# Semester 5

**Critical**: "C" or better in MATH 1552; 2.0 Cumulative and LSU GPA.

- CHEM 2364 Organic Chemistry Laboratory (2)
- PHYS 2110 Particle Mechanics (3)
- ENVS 4477 Environmental Toxicology: Introduction and Applications (3)
- General Education course Humanities (3)
- General Education course Social Sciences [2000 level] (3)

# Total Semester Hours: 14

# Semester 6

- PHYS 2113 Fields: Gravity, Electricity, and Magnetism (3)
- OCS 3103 Global Environmental Cycles (3)
- General Education course Humanities [2 courses] (6)
- Approved Coastal Environmental Science Electives (3)

**Total Semester Hours: 15** 

Semesters 7 and 8 - LSUHSC School of Public Health Students who successfully complete 3 years in the LSU CCE program and the first year (30 credit hours) of the curriculum at LSUHSC School of Public Health Environmental Health Program will be awarded an undergraduate bachelor of sciences degree from LSU in Coastal Environmental Science.

For more information please contact the College of the Coast & Environment.

# Semesters 9 and 10 - LSUHSC School of Public Health

Upon completion of the remaining 15 credit hours of the Environmental & Occupational Health Sciences curriculum at LSUHSC School of Public Health, the student will be awarded a Masters Degree in Public Health (MPH) from the LSUHSC School of Public Health.

For more information please contact the College of the Coast & Environment.

# Coastal Environmental Science Electives

<sup>1</sup> - Approved coastal environmental science electives (18 hours required for the environmental science and research area of concentration and 15 hours required for the applied coastal environmental science area of concentration) are environmental courses numbered 3000 and higher and must include at least one course from each of the four areas of emphasis:

<sup>2</sup> - Students are required to perform undergraduate research (ENVS 3999/OCS 3999) working with a faculty member in their area of expertise. Contact the undergraduate program advisor for information about possible mentors.

# (1) physical science area:

- OCS 3200 Hurricanes and Typhoons (3)
- OCS 4021 Weather Analysis and Satellite Meteorology (3)
- OCS 4024 Coastal Morphodynamics (3)
- OCS 4060 Introductory Estuarine Dynamics (3)

- OCS 4128 Wetland Hydrology and Hydrodynamics (3)
- ENVS 4113 Multi-Media Chemical Behavior for Risk Assessment (3) or
- CHE 4263 Environmental Chemodynamics (3)
- ENVS 4145 Remote Sensing Fundamentals for Environmental Scientists (3)
- GEOL 4164 Deltaic Geology (3)
- OCS 4170 Physical Oceanography (3)
- OCS 4210 Geological Oceanography (3)
- ENVS 4900 Watershed Hydrology (3) or
- RNR 4900 Watershed Hydrology (3)

# (2) chemistry area:

- BIOL 4087 Basic Biochemistry (4)
- ENVS 4035 Aquatic Pollution (3) or
- ENVS 4036 HONORS: Aquatic Pollution (3)
- ENVS 4101 Environmental Chemistry (3)
- ENVS 4113 Multi-Media Chemical Behavior for Risk Assessment (3) or
- CHE 4263 Environmental Chemodynamics (3)
- OCS 4126 Chemical Oceanography (3) or
- GEOL 4081 Chemical Oceanography (3)
- OCS 4165 Environmental Chemistry of Wetlands (3)
- OCS 4242 Wetlands and Water Quality (3)
- ENVS 4007 Cancer: A Family of Environmental Diseases (3)
- ENVS 4477 Environmental Toxicology: Introduction and Applications (3)
- ENVS 4600 Global Environmental Change: Past, Present and Future (3) or
- OCS 4600 Global Environmental Change: Past, Present and Future (3)

# (3) biology area:

- ENVS 4010 Applied Ecology (3) or
- EMS 4010 Applied Ecology (2)

- ENVS 4035 Aquatic Pollution (3) or
- ENVS 4036 HONORS: Aquatic Pollution (3)
- ENVS 4007 Cancer: A Family of Environmental Diseases (3)
- ENVS 4477 Environmental Toxicology: Introduction and Applications (3)
- ENVS 4500 Health Effects of Environmental Pollutants (3)
- OCS 4006 Wetland Field Experience Florida Everglades, Mangroves, and Seagrasses (3)
- OCS 4012 Biology of Marine Vertebrates (3)
- OCS 4090 Marine and Environmental Microbiology (3) or
- BIOL 4090 Marine and Environmental Microbiology (3)
- OCS 4308 Plants in Coastal Environments (3) or
- BIOL 4308 Plants in Coastal Environments (3)
- OCS 4242 Wetlands and Water Quality (3)
- OCS 4372 Estuarine Ecology (4)
- OCS 4410 Ecosystem Modeling and Analysis (3)
- OCS 4550 Biological Oceanography (3)
- BIOL 4087 Basic Biochemistry (4)
- RNR 4037 Biology of Fishes (3)
- RNR 4106 Techniques in Limnology and Fisheries (2)
- BIOL 4262 Marine Communities (3) or
- BIOL 4263 Marine Communities Laboratory (1)
- RNR 4020 Taxonomy and Ecology of Wetland Plants (4) or
- BIOL 4020 Taxonomy and Ecology of Wetland Plants (4)
- RNR 4145 Ichthyology (4) or
- BIOL 4145 Ichthyology (4)

# (4) policy and management area:

- ENVS 4149 Design of Environmental Management Systems (3)
- ENVS 4261 Energy and the Environment (3)
- ENVS 4262 Environmental Hazards Analysis (3)

- ENVS 4264 Regulation of Environmental Hazards (3)
- ENVS 4266 Ocean Policy (3)
- ENVS 4268 Environmental and Natural Resources Policy (3) or
- OCS 4268 Environmental and Natural Resources Policy (3) or
- RNR 4268 Environmental and Natural Resources Policy (3)
- OCS 4465 Coastal Zone Management (3)
- OCS 4560 Wetland Loss, Restoration and Management (3)
- OCS 4565 Restoration Ecology/Ecological Restoration (3)
- RNR 4023 Marine Fisheries Resources (3)
- EMS 3040 Applied Environmental Management (4)
- EMS 3050 Environmental Regulations and Compliance (3)
- EMS 4020 Quantitative Risk Assessment (3)

# Additional Information

Additional courses numbered 3000 and higher outside of the coastal environmental science program may be substituted as approved CES electives with prior written approval from the CES program undergraduate advisor. Many departments at LSU offer courses with an environmental emphasis or closely related topic. Please check with your advisor and the *General Catalog* for options.

Undergraduate research (ENVS 3999 or OCS 3999) may also be taken as an approved coastal environmental science elective in the applied environmental science area of concentration. Undergraduate research requires an agreement between the student and a faculty member in the College of the Coast & Environment. Students may get credit in one of the areas of emphasis above for undergraduate research based on the faculty member's area of expertise. Contact the undergraduate program advisor for information about possible mentors.

It should be noted that students successfully completing requirements in BIOL 2153, BIOL 4087, and CHEM 4150 (or ENVS 4101) might be eligible for undergraduate minors in both chemistry and biological sciences. See the College of Science curriculum notes for specific requirements regarding minors. Students majoring in coastal environmental sciences are not eligible to minor in either environmental sciences or in oceanography and coastal sciences.

#### **Environmental Sciences Minor**

The minor in environmental sciences provides students with a background in fields of science immediately relevant to problems facing modern society. Students majoring in diverse fields of study will gain an understanding of the broad field of environmental sciences.

To graduate with a minor in environmental sciences, students must complete 15 hours of coursework as follows:

Required core courses (12 hrs): ENVS 1126 (or ENVS 1127), and one course from each priority area A, B, and C.

- A. Biophysical: ENVS 4035 (or ENVS 4036), ENVS 4101, ENVS 4477 & ENVS 4600.
- B. Planning & Management: ENVS 4261, ENVS 4262, ENVS 4264 & ENVS 4266.
- C. Assessment & Analysis: ENVS 3102, ENVS 4145, ENVS 4149 & ENVS 4900.

Students must also select one additional ENVS course (three hrs.) from the above listing, or ENVS 3999, or any 2000-level or higher courses approved by the department.

It should be noted that students may be eligible for undergraduate minors in both *chemistry* and *biological sciences* depending upon the courses selected. See the College of Science curriculum notes for specific requirements regarding minors in these programs.

#### **Environmental Toxicology Minor**

The minor in Environmental Toxicology provides students with a background in the basic science of chemical, physical, and environmental hazards immediately relevant to problems facing modern society and human health risks. Students majoring in diverse fields of study will gain an understanding of the field of Environmental Toxicology.

Students majoring in Coastal Environmental Sciences may not choose Environmental Toxicology as a minor.

To graduate with a minor in Environmental Toxicology, students must complete 12 hours of coursework as follows:

#### **Required Courses (12 hours):**

ENVS 4101 Environmental Chemistry (3)

ENVS 4477 Environmental Toxicology: Introduction and Applications (3)

#### and two courses from the following list:

ENVS 4007, ENVS 4010, ENVS 4035, ENVS 4036, ENVS 4045, ENVS 4500 and ENVS 4113.

All ENVS courses must be passed with a "C" or better. A residency requirement of 9 hours of credit must be earned at this University to receive a minor in Environmental Toxicology.

# **Department of Oceanography & Coastal Sciences**

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The *Department of Oceanography & Coastal Sciences* offers Bachelor of Science, Master of Science, and Doctor of Philosophy degrees and supports the expansion of marine-related instruction in other academic departments. Research and instruction in the department is focused on fundamental understanding and practical application of knowledge of the physical, chemical, biological, geological, and meteorological processes that affect those environments usually identified as marine, coastal, or estuarine.

The extensive marshes and estuaries of Louisiana (40 percent of the coastal wetlands in the United States) and the adjacent continental shelf, impacted by natural and anthropogenic activity, serve as a vast natural laboratory for much of the field research conducted by faculty and graduate students. Research activity is carried out not only in Louisiana but also at such regional, national, and international sites as Florida Bay, the Everglades, the Orinoco River delta, and estuaries and coastal waters of Central America, Denmark, France, and China.

Admission to the graduate program in oceanography and coastal sciences requires admission to the Graduate School and a bachelor's or graduate degree in science or engineering from an accredited institution. Because of the nature of the fields of oceanography and coastal sciences, successful applicants to the program must first be accepted by a faculty member who will serve as their major advisor. Students interested in the department's program are, therefore, encouraged to contact faculty members who work in the student's field of interest. A description of all courses offered by the department is included in this catalog. In addition all students are required to have successfully completed differential and integral calculus. If an applicant has not completed these requirements by the time of enrollment in the Department of Oceanography and Coastal Sciences, they will be required to do so during their first year at LSU.

# Coastal Environmental Science, B.S. CES.

# Areas of Concentration

# Applied Coastal Environmental Science

# **CRITICAL REQUIREMENTS**

SEMESTER 1: Credit in MATH 1022/MATH 1023; 2.0 Cumulative and LSU GPA.

SEMESTER 2: "C" or better in CHEM 1201; "C" or better in ENGL 1001 or ENGL 1004; 2.0 Cumulative and LSU GPA.

SEMESTER 3: "C" or better in BIOL 1201; 2.0 Cumulative and LSU GPA.

SEMESTER 4: "C" or better in MATH 1550; 2.0

Cumulative and LSU GPA.

SEMESTER 5: "C" or better in EXST 2201; 2.0 Cumulative and LSU GPA.

# Semester 1

**CRITICAL:** Credit in MATH 1022/MATH 1023; 2.0 Cumulative and LSU GPA.

- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)
- CHEM 1201 General Chemistry I (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- ENVS 1126 Introduction to Environmental Sciences (3) or
- ENVS 1127 HONORS: Introduction to Environmental Sciences (3)
- ENVS 1010 Introduction to Coastal Environmental Science (1) or
- OCS 1010 Introduction to Coastal Environmental Science (1)

Total Semester Hours: 16

# Semester 2

**CRITICAL:** "C" or better in CHEM 1201; "C" or better in ENGL 1001 or ENGL 1004; 2.0 Cumulative and LSU GPA.

- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1)
- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- ENGL 1001 English Composition (3)
- General Education course Arts (3)

Total Semester Hours: 15

# Semester 3

**CRITICAL:** "C" or better in BIOL 1201; 2.0 Cumulative and LSU GPA.

- CHEM 2261 Organic Chemistry (3)
- ENGL 2000 English Composition (3)
- OCS 2007 Introduction to Marine Sciences: Geological and Physical (3)
- EXST 2201 Introduction to Statistical Analysis (4)
- Approved Electives (2)

#### Total Semester Hours: 15

# Semester 4

**CRITICAL:** "C" or better in MATH 1550; 2.0 Cumulative and LSU GPA.

- CHEM 2001 Analytical Chemistry (3)
- CHEM 2002 Analytical Chemistry Laboratory (1)
- OCS 2011 Introduction to MATLAB for Coastal Sciences (3)
- OCS 2008 Introduction to Marine Sciences: Life Processes (3)
- BIOL 2051 General Microbiology (4) or
- BIOL 2153 Principles of Genetics (4) or
- LA 2401 Landscape Ecology (3) or
- OCS 2050 Coastal Systems Ecology and Ecosystem Design (3) or
- RNR 2101 Ecology of Renewable Natural Resources (3)

• General Education course - Social Sciences (3)

#### Total Semester Hours: 16-17

#### Semester 5

**CRITICAL:** "C" or better in EXST 2201; 2.0 Cumulative and LSU GPA.

- PHYS 2001 General Physics I (3)
- OCS 2020 Introduction to Marine Science: Field and Laboratory Methods (2)
- PHYS 2108 Introductory Physics Laboratory (1)
- EXST 3201 Statistical Analysis II (4)
- OCS 3103 Global Environmental Cycles (3)
- Approved Coastal Environmental Science Elective (3)<sup>1</sup>

#### **Total Semester Hours: 16**

#### Semester 6

- PHYS 2002 General Physics II (3)
- PHYS 2109 General Physics Laboratory (1)
- ENVS 3102 Mathematical Methods in Science (3)
- General Education course Humanities (3)
- Approved Electives (4)

#### **Total Semester Hours: 14**

#### Semester 7

- ENVS 4149 Design of Environmental Management Systems (3) or
- GEOG 4047 Geographic Information Systems (3)
- Approved Coastal Environmental Science Electives (6)<sup>1</sup>
- General Education course Social Sciences [2000-level] (3)
- General Education course Humanities (3)

#### Total Semester Hours: 15

#### Semester 8

- ENVS 4999 Capstone in Coastal Environmental Science (1) or
- OCS 4999 Capstone in Coastal Environmental Science (1)
- Approved Coastal Environmental Science Electives (6)<sup>1</sup>
- Approved Electives (3-2)
- General Education course Humanities (3)

#### Total Semester Hours: 13-12

#### 120 Total Sem. Hrs.

<sup>1</sup> - Approved Coastal Environmental Science electives - see below.

# Environmental Science and Research

## **CRITICAL REQUIREMENTS**

SEMESTER 1: Credit in MATH 1022/MATH 1023; 2.0 Cumulative and LSU GPA. SEMESTER 2: "C" or better in CHEM 1201; "C" or better in ENGL 1001 and ENGL 1004; 2.0 Cumulative and LSU GPA. SEMESTER 3: "C" or better in BIOL 1201; 2.0 Cumulative and LSU GPA. SEMESTER 4: "C" or better in CHEM 1202; 2.0 Cumulative and LSU GPA. SEMESTER 5: "C" or better in MATH 1552; 2.0 Cumulative and LSU GPA.

#### Semester 1

**CRITICAL:** Credit in MATH 1022/MATH 1023; 2.0 Cumulative and LSU GPA.

- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)
- CHEM 1201 General Chemistry I (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- ENVS 1126 Introduction to Environmental Sciences (3) or

- ENVS 1127 HONORS: Introduction to Environmental Sciences (3)
- ENVS 1010 Introduction to Coastal Environmental Science (1) or
- OCS 1010 Introduction to Coastal Environmental Science (1)

#### Semester 2

**CRITICAL:** "C" or better in CHEM 1201; "C" or better in ENGL 1001 or ENGL 1004; 2.0 Cumulative and LSU GPA.

- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1)
- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- ENGL 1001 English Composition (3)
- General Education course Arts (3)

#### Total Semester Hours: 15

#### Semester 3

**CRITICAL:** "C" or better in BIOL 1201; 2.0 Cumulative and LSU GPA.

- CHEM 2261 Organic Chemistry (3)
- ENGL 2000 English Composition (3)
- OCS 2007 Introduction to Marine Sciences: Geological and Physical (3)
- MATH 1552 Analytic Geometry and Calculus II (4)
- Approved Electives (2)

#### Semester 4

**CRITICAL:** "C" or better in CHEM 1202; 2.0 Cumulative and LSU GPA.

- CHEM 2262 Organic Chemistry (3)
- BIOL 2051 General Microbiology (4) or
- BIOL 2153 Principles of Genetics (4)

- EXST 2201 Introduction to Statistical Analysis (4) or
- MATH 2057 Multidimensional Calculus (3)
- OCS 2008 Introduction to Marine Sciences: Life Processes (3)
- General Education course Social Sciences (3)

#### Total Semester Hours: 16-17

#### Semester 5

**CRITICAL:** "C" or better in MATH 1552; 2.0 Cumulative and LSU GPA.

- CHEM 2364 Organic Chemistry Laboratory (2)
- MATH 2065 Elementary Differential Equations (3) or
- ENVS 3102 Mathematical Methods in Science
   (3)
- OCS 2020 Introduction to Marine Science: Field and Laboratory Methods (2)
- PHYS 2110 Particle Mechanics (3)
- PHYS 2108 Introductory Physics Laboratory (1)
- General Education course Social Sciences [2000-level] (3)

#### **Total Semester Hours: 14**

#### Semester 6

- PHYS 2113 Fields: Gravity, Electricity, and Magnetism (3)
- PHYS 2109 General Physics Laboratory (1)
- OCS 3103 Global Environmental Cycles (3)
- ENVS 3999 Undergraduate Research (1-6) or
- OCS 3999 Undergraduate Research in Coastal Sciences (1-6)<sup>2</sup>
- General Education course Humanities (3)
- Approved CES Electives (3)<sup>1</sup>

#### **Total Semester Hours: 15**

#### Semester 7

- General Education course Humanities (3)
- Approved Elective (3)
- Approved Coastal Environmental Science Electives (9)<sup>1</sup>

#### Semester 8

- ENVS 4999 Capstone in Coastal Environmental Science (1) or
- OCS 4999 Capstone in Coastal Environmental Science (1)
- Approved Elective (4-3)
- Approved Coastal Environmental Science Electives (6)<sup>1</sup>
- General Education course Humanities (3)

## Total Semester Hours: 14-13

# 120 Total Sem. Hrs.

<sup>1</sup> - Approved Coastal Environmental Science electives - see below.

# Environmental Health (3+2 program with LSUHSC School of Public Health)

# **CRITICAL REQUIREMENTS**

SEMESTER 1: Credit in MATH 1010/MATH 1023; 2.0 Cumulative and LSU GPA. SEMESTER 2: "C" or better in CHEM 1201; "C" or better in ENGL 1001 or ENGL 1004; 2.0 Cumulative and LSU GPA. SEMESTER 3: "C" or better in BIOL 1201; 2.0 Cumulative and LSU GPA. SEMESTER 4: "C" or better in CHEM 1202; 2.0 Cumulative and LSU GPA. SEMESTER 5: "C" or better in MATH 1552; 2.0 Cumulative and LSU GPA.

# Semester 1

**Critical:** Credit in MATH 1022/MATH 1023; 2.0 Cumulative and LSU GPA.

- ENVS 1010 Introduction to Coastal Environmental Science (1) or
- OCS 1010 Introduction to Coastal Environmental Science (1)
- ENVS 1126 Introduction to Environmental Sciences (3) or
- ENVS 1127 HONORS: Introduction to Environmental Sciences (3)
- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)
- CHEM 1201 General Chemistry I (3)
- MATH 1550 Analytic Geometry and Calculus I (5)

# Total Semester Hours: 16

# Semester 2

**Critical:** "C" or better in CHEM 1201; "C" or better in ENGL 1001 or ENGL 1004; 2.0 Cumulative and LSU GPA.

- ENGL 1001 English Composition (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1)
- BIOL 1202 Biology for Science Majors II (3)
- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- General Education course Arts (3)

# **Total Semester Hours: 15**

# Semester 3

**Critical:** "C" or better in BIOL 1201; 2.0 Cumulative and LSU GPA.

- ENGL 2000 English Composition (3)
- CHEM 2261 Organic Chemistry (3)
- OCS 2007 Introduction to Marine Sciences: Geological and Physical (3)
- MATH 1552 Analytic Geometry and Calculus II (4)

• General Education course - Social Sciences (3)

#### **Total Semester Hours: 16**

#### Semester 4

**Critical**: "C" or better in CHEM 1202; 2.0 Cumulative and LSU GPA.

- CHEM 2262 Organic Chemistry (3)
- OCS 2008 Introduction to Marine Sciences: Life Processes (3)
- EXST 2201 Introduction to Statistical Analysis (4)
- BIOL 2051 General Microbiology (4)

#### Total Semester Hours: 14

#### Semester 5

**Critical**: "C" or better in MATH 1552; 2.0 Cumulative and LSU GPA.

- CHEM 2364 Organic Chemistry Laboratory (2)
- PHYS 2110 Particle Mechanics (3)
- ENVS 4477 Environmental Toxicology: Introduction and Applications (3)
- General Education course Humanities (3)
- General Education course Social Sciences [2000 level] (3)

#### Total Semester Hours: 14

#### Semester 6

- PHYS 2113 Fields: Gravity, Electricity, and Magnetism (3)
- OCS 3103 Global Environmental Cycles (3)
- General Education course Humanities [2 courses] (6)
- Approved Coastal Environmental Science Electives (3)

**Total Semester Hours: 15** 

Semesters 7 and 8 - LSUHSC School of Public Health Students who successfully complete 3 years in the LSU CCE program and the first year (30 credit hours) of the curriculum at LSUHSC School of Public Health Environmental Health Program will be awarded an undergraduate bachelor of sciences degree from LSU in Coastal Environmental Science.

For more information please contact the College of the Coast & Environment.

# Semesters 9 and 10 - LSUHSC School of Public Health

Upon completion of the remaining 15 credit hours of the Environmental & Occupational Health Sciences curriculum at LSUHSC School of Public Health, the student will be awarded a Masters Degree in Public Health (MPH) from the LSUHSC School of Public Health.

For more information please contact the College of the Coast & Environment.

# Coastal Environmental Science Electives

<sup>1</sup> - Approved coastal environmental science electives (18 hours required for the environmental science and research area of concentration and 15 hours required for the applied coastal environmental science area of concentration) are environmental courses numbered 3000 and higher and must include at least one course from each of the four areas of emphasis:

<sup>2</sup> - Students are required to perform undergraduate research (ENVS 3999/OCS 3999) working with a faculty member in their area of expertise. Contact the undergraduate program advisor for information about possible mentors.

# (1) physical science area:

- OCS 3200 Hurricanes and Typhoons (3)
- OCS 4021 Weather Analysis and Satellite Meteorology (3)
- OCS 4024 Coastal Morphodynamics (3)
- OCS 4060 Introductory Estuarine Dynamics (3)

- OCS 4128 Wetland Hydrology and Hydrodynamics (3)
- ENVS 4113 Multi-Media Chemical Behavior for Risk Assessment (3) or
- CHE 4263 Environmental Chemodynamics (3)
- ENVS 4145 Remote Sensing Fundamentals for Environmental Scientists (3)
- GEOL 4164 Deltaic Geology (3)
- OCS 4170 Physical Oceanography (3)
- OCS 4210 Geological Oceanography (3)
- ENVS 4900 Watershed Hydrology (3) or
- RNR 4900 Watershed Hydrology (3)

# (2) chemistry area:

- BIOL 4087 Basic Biochemistry (4)
- ENVS 4035 Aquatic Pollution (3) or
- ENVS 4036 HONORS: Aquatic Pollution (3)
- ENVS 4101 Environmental Chemistry (3)
- ENVS 4113 Multi-Media Chemical Behavior for Risk Assessment (3) or
- CHE 4263 Environmental Chemodynamics (3)
- OCS 4126 Chemical Oceanography (3) or
- GEOL 4081 Chemical Oceanography (3)
- OCS 4165 Environmental Chemistry of Wetlands (3)
- OCS 4242 Wetlands and Water Quality (3)
- ENVS 4007 Cancer: A Family of Environmental Diseases (3)
- ENVS 4477 Environmental Toxicology: Introduction and Applications (3)
- ENVS 4600 Global Environmental Change: Past, Present and Future (3) or
- OCS 4600 Global Environmental Change: Past, Present and Future (3)

# (3) biology area:

- ENVS 4010 Applied Ecology (3) or
- EMS 4010 Applied Ecology (2)

- ENVS 4035 Aquatic Pollution (3) or
- ENVS 4036 HONORS: Aquatic Pollution (3)
- ENVS 4007 Cancer: A Family of Environmental Diseases (3)
- ENVS 4477 Environmental Toxicology: Introduction and Applications (3)
- ENVS 4500 Health Effects of Environmental Pollutants (3)
- OCS 4006 Wetland Field Experience Florida Everglades, Mangroves, and Seagrasses (3)
- OCS 4012 Biology of Marine Vertebrates (3)
- OCS 4090 Marine and Environmental Microbiology (3) or
- BIOL 4090 Marine and Environmental Microbiology (3)
- OCS 4308 Plants in Coastal Environments (3) or
- BIOL 4308 Plants in Coastal Environments (3)
- OCS 4242 Wetlands and Water Quality (3)
- OCS 4372 Estuarine Ecology (4)
- OCS 4410 Ecosystem Modeling and Analysis (3)
- OCS 4550 Biological Oceanography (3)
- BIOL 4087 Basic Biochemistry (4)
- RNR 4037 Biology of Fishes (3)
- RNR 4106 Techniques in Limnology and Fisheries (2)
- BIOL 4262 Marine Communities (3) or
- BIOL 4263 Marine Communities Laboratory (1)
- RNR 4020 Taxonomy and Ecology of Wetland Plants (4) or
- BIOL 4020 Taxonomy and Ecology of Wetland Plants (4)
- RNR 4145 Ichthyology (4) or
- BIOL 4145 Ichthyology (4)

# (4) policy and management area:

- ENVS 4149 Design of Environmental Management Systems (3)
- ENVS 4261 Energy and the Environment (3)
- ENVS 4262 Environmental Hazards Analysis (3)

- ENVS 4264 Regulation of Environmental Hazards (3)
- ENVS 4266 Ocean Policy (3)
- ENVS 4268 Environmental and Natural Resources Policy (3) or
- OCS 4268 Environmental and Natural Resources Policy (3) or
- RNR 4268 Environmental and Natural Resources Policy (3)
- OCS 4465 Coastal Zone Management (3)
- OCS 4560 Wetland Loss, Restoration and Management (3)
- OCS 4565 Restoration Ecology/Ecological Restoration (3)
- RNR 4023 Marine Fisheries Resources (3)
- EMS 3040 Applied Environmental Management (4)
- EMS 3050 Environmental Regulations and Compliance (3)
- EMS 4020 Quantitative Risk Assessment (3)

# Additional Information

Additional courses numbered 3000 and higher outside of the coastal environmental science program may be substituted as approved CES electives with prior written approval from the CES program undergraduate advisor. Many departments at LSU offer courses with an environmental emphasis or closely related topic. Please check with your advisor and the *General Catalog* for options.

Undergraduate research (ENVS 3999 or OCS 3999) may also be taken as an approved coastal environmental science elective in the applied environmental science area of concentration. Undergraduate research requires an agreement between the student and a faculty member in the College of the Coast & Environment. Students may get credit in one of the areas of emphasis above for undergraduate research based on the faculty member's area of expertise. Contact the undergraduate program advisor for information about possible mentors.

It should be noted that students successfully completing requirements in BIOL 2153, BIOL 4087, and CHEM 4150 (or ENVS 4101) might be eligible for undergraduate minors in both chemistry and biological sciences. See the College of Science curriculum notes for specific requirements regarding minors.

Students majoring in coastal environmental sciences are not eligible to minor in either environmental sciences or in oceanography and coastal sciences.

# **Oceanography & Coastal Sciences Minor**

The Department of Oceanography and Coastal Sciences offers a minor in *oceanography and coastal sciences*. Requirements for the minor are completion of OCS 2007 and OCS 2008 with a grade of "C" or better and completion of at least 10 additional credit hours of approved electives with a grade of "C" or better, at least six hours of which must be at the 3000 level or higher.

Students majoring in coastal environmental science may not choose oceanography and coastal sciences as a minor.

# **College of Engineering**

MARY JULIA WORNAT Dean		
CRAIG HARVEY	BARBARA W. REONAS	
Associate Dean, Academic Affairs	Assistant Dean	
ANISSA ADDISON GUERIN	LISA B. FONTENOT	
Counselor	Counselor	
LEIGH POTTS	ASHLEIGH TURNER	
Counselor	Counselor	
2228 Patrick F. Taylor Hall TELEPHONE 225-578-5731 FAX 225-578-4845		

# Departments, Schools, and Curricula

All curricula meet the university general education requirements with explicit course requirements and approved electives.

All technical electives must have approval of the chair of the engineering department in which the student registers. Under no circumstances may electives be chosen from remedial courses or courses that are preliminary to the first courses in engineering. Examples of such courses are MATH 1021, MATH 1022, etc. Students are advised to check with their departments on the selection of these electives.

Department of Biological & Agricultural Engineering	Gordon A. and Mary Cain Department of Chemical Engineering	Department of Civil & Environmental Engineering	Bert S. Turner Department of Construction Management
School of Electrical Engineering & Computer Science	Department of Mechanical & Industrial Engineering	Craft and Hawkins Department of Petroleum Engineering	

Engineering is defined by the American Society for Engineering Education as "...the profession in which a knowledge of the mathematical and natural sciences gained by study, experience, and practice is applied with judgment to develop ways to utilize the materials and forces of nature economically for the benefit of mankind." Consistent with this definition, the College of Engineering prepares individuals for professional careers in engineering research, development, design, operation, or management industry, business, education, and government. This preparation is accomplished through education in a chosen engineering discipline consisting of general education fundamentals and design, mathematics, physical and life sciences, English composition, the arts, humanities, and social sciences.

The college also offers degrees in computer science and in construction management. The computer science degree program is a rigorous plan of study that provides the strong theoretical and applied background necessary for solving diverse problems related to software development. The construction management program establishes a unique plan of study into the business side of construction by combining engineering, design, business, finance, law, and technical courses with emphasis in the different industry types – industrial, commercial, highway, and residential construction.

The College of Engineering includes seven degree granting departments, as well as the Advanced Computational Solid Mechanics Lab, Center for Geoinformatics, Center for Rotating Machinery, Hazardous Substance Research Center (South and Southwest), Louisiana Transportation Research Center, Louisiana Water Resources Research Institute, Energy Frontier Research Center, Gulf Coast Research Center for Evacuation and Transportation Resiliency, and National Center for Advanced Manufacturing. The faculty is actively engaged in design, research, and problem solving in well-equipped facilities for research and teaching.

# **Degree Programs**

The following undergraduate programs are offered by the College of Engineering:

- Biological Engineering, BSBE
- Chemical Engineering, BSCHE
- Civil Engineering, BSCE
- Environmental Engineering, BSEVE
- Construction Management, BSCM
- Industrial Engineering, BSIE
- Electrical Engineering, BSEE
- Computer Engineering, BSCOE
- Computer Science, BS
- Mechanical Engineering, BSME
- Petroleum Engineering, BSPETE

# **Proficiency Requirements**

Mathematical proficiency is essential to engineers and to engineering education. Accordingly, students who plan to study engineering should schedule all appropriate mathematics courses available to them in high school. Placement tests are given to all incoming freshmen, and those who do not qualify to begin university mathematics at the level prescribed in the freshman engineering program cannot expect to complete requirements for a degree in the nominal length of time. Credit for mathematics courses preliminary to analytical geometry and calculus cannot be applied toward the engineering degrees in the College of Engineering.

Proficiency in college-level mathematics and physics is essential to successful completion of upper-division engineering courses. Engineering students must earn a minimum grade of "C" in MATH 1550, MATH 1552, and PHYS 2110 before they enroll in any engineering course numbered above 2999. However, CE 3700, IE 3201, and IE 4462 may be taken prior to the aforementioned mathematics and physics courses.

English proficiency is defined as a grade of "C" or better in all required English courses in the student's curriculum (ENGL 1001 and ENGL 2000).

More stringent requirements may be imposed by individual departments. Refer to the curricular requirements of each department.

# **Admission Requirements**

Admission to the university does not constitute acceptance into the College of Engineering or into a particular curriculum within this college. Where enrollment may exceed the facilities of a department, it may be necessary to limit the size of the classes in that curriculum. In such cases, the department establishes criteria for admission with approval of the university administration.

Students may enter the college from University College or by transfer from another division of LSU or another approved college or university.

Students in the LSU Center for Freshman Year who meet the following criteria will be admitted to the college:

- 24 or more semester hours of earned credit in courses numbered 1000 or above;
- LSU and cumulative GPA of 2.00 or better;
- Credit in MATH 1550 with a grade of "C" or better.

Petroleum engineering majors must meet all College of Engineering admissions requirements and have a minimum 2.8 GPA in all courses that apply to the petroleum engineering degree.

Other students seeking admission from another division of LSU or by transfer from another college or university must also meet the above requirements. Students with more than 60 hours attempted will be considered for admission on the basis of the dean's evaluation of the entire academic record. Students transferring from another institution must also meet university transfer admission requirements as detailed in this catalog in the "Undergraduate Admissions" chapter.

# **Transfer of Credit from Other Institutions**

In this college, transfer credits accepted by the Office of Enrollment Management shall be valid for degree credit only to the extent to which they satisfy courses in the curricula of the college. Transfer credits in junior and senior engineering courses will be accepted only if taken in programs accredited by the Engineering Accreditation Commission of ABET, www.abet.org.

Credit in courses in which grades of "D" have been earned is not accepted for transfer toward the degree requirements, if the course is taken outside the university (all LSU campuses). Students enrolled in this college who wish to obtain credits from other colleges or universities (including other campuses of LSU) and who plan to use such credits toward degree requirements should obtain *prior approval* in writing on a specific-course basis from the Office of Engineering Student Services.

# Readmission

A student seeking readmission to this college must submit an application for admission. The dean, with recommendation of the department in which the student seeks admission, will determine whether readmission is granted and may prescribe the conditions for reinstatement.

# **Degree Requirements**

It is the student's responsibility to qualify for the bachelor's degree by meeting these requirements:

- Completing one of the established curricula–any substitutions from the curricula as published must have written approval of the department chair and the Office of Engineering Student Services.
- Achieving a 2.00 average, as required by the university, for all work taken at LSU and on all work attempted at U.S. institutions.
- Achieving a 2.00 average on all courses attempted in the major department at LSU and on all work attempted in the major field at U.S. institutions (with the exception of certain courses offered by the major departments for non-majors only). Civil engineering students must achieve a 2.00 average in all civil engineering (CE) and environmental engineering (EVEG) courses and on all work completed in the major field at U. S. institutions. Environmental engineering students must achieve a 2.00 average in all chemical engineering (CHE), civil engineering (CE), and environmental engineering (EVEG) courses and on all work completed in the major field at U.S. institutions.
- Successfully completing a minimum of 30 hours of residence in the College of Engineering. These 30 hours are included in the university requirement that a minimum of 25 percent of the hours applied toward a degree be earned while in residence at the university. (These residence hours must include 15 hours of required major department courses or approved technical electives at the 3000- or 4000-level. Students must complete nine hours of these courses at the 4000-level in the major. The individual courses used to satisfy the residency requirement must be approved by the department chair.)
- Initiating the checkout procedure with the departmental advisor in the semester prior to the one in which the degree is to be awarded. The checkout is completed only when approved by the Office of Engineering Student Services and the Office of the University Registrar.

# **General Education Requirements**

All engineering, computer science, and construction management majors must complete one arts course, two composition courses, two analytical reasoning courses, three humanities courses, two social sciences courses, and one life science course from the approved general education list from their catalog of record and according to the major curriculum requirements. Specific major requirements are noted in the "Guide to Success" available in the Student Services Office or online (www.eng.lsu.edu, see "Current Student Resources").

# **Requirements for Second Bachelor's Degree**

Students who hold one baccalaureate degree may wish to obtain a baccalaureate degree in engineering as a second degree. To do so, they must complete a minimum of 30 semester hours while enrolled in the department granting the second degree. In addition to the requirements of the first discipline, the student must satisfy all requirements for the second discipline, as shown in the curriculum.

They must attain a minimum 2.00 GPA average on all work scheduled while enrolled in the College of Engineering and on all work subsequent to receipt of the first degree. A student whose first degree was obtained elsewhere must also satisfy all the admission requirements of the college, as previously listed.

# College Policy for "D" Grades and Repetition of Courses

Only those courses in which grades of "D" or "F" were earned may be repeated. Courses in which a grade of "F" were earned may be repeated only as allowed by the university as detailed in the "Regulations" chapter of this catalog. A student who earns a "D" or "F" in a course in which a minimum grade of "C" is required must register for the course again in the next regular semester in which the student is enrolled and the course is offered.

# **Graduate Programs**

The college offers the Master of Science, the Master of Digital Media Arts and Engineering, and the Doctor of Philosophy degrees through the Graduate School. The Master of Science program is mostly research oriented and emphasizes fundamental theory. It is offered in engineering science, coastal and ecological engineering, construction management, computer science, and biological and agricultural, chemical, civil, electrical, industrial, mechanical, and petroleum engineering. The Doctor of Philosophy degree is awarded in the fields of chemical engineering, civil engineering, computer science, electrical engineering, mechanical engineering, petroleum engineering, and engineering science. For additional information, consult "The Graduate School" section.

# **Independent and Distance Learning Program Credits**

Independent and Distance Learning Program (IDL) courses to be used for degree credit must be approved by the Office of Engineering Student Services. Students must see a counselor in Student Services to enroll and establish a Dean's deadline for completion of the course. Consistent with university regulations, students may earn no more than one-fourth of the number of hours required for the bachelor's degree through IDL courses.

Students not registered in campus courses may enroll in IDL courses for degree credit; however, students who have been dropped from the university may not enroll in IDL courses for degree credit.

Students registered in the university may enroll in a maximum of 19 semester hours (21 would have to be approved by the Office of Engineering Student Services) of combined IDL and campus coursework during a regular semester and a maximum of 12 hours during the summer. Only in exceptional cases will students be allowed to enroll in IDL coursework during the semester in which they intend to graduate.

# **Minor Field Requirements (Optional)**

A student may earn a minor in a second field. The specific requirements are determined by the department offering the minor. Students who plan to minor in a second field must see a counselor in the Office of Engineering Student Services to initiate the proper procedures. A student must earn a minimum 2.00 LSU and cumulative GPA in the minor field. The College of Engineering also offers *minors in Digital Media AVATAR Technology Robotics Engineering*, and *Technical Sales*.

# Minor in Digital Media Arts and Engineering - Technology

To earn a *Digital Media Arts and Engineering -Technology minor* a student must complete 21 credit hours of course work. These must include: CSC 1253, CSC 1350 or IE 2060; one course from ART 1001, ART 1011, ARTH 2470, MUS 1751, MUS 1799, ENGL 2009; nine credit hours of approved engineering and/or science electives; three credit hours of approved arts electives; and the three credit hour Tech DMAET capstone course, EE 4859.

# **Minor in Robotics Engineering**

To earn a *Robotics Engineering* minor, a student must complete 21 credit hours of coursework with a minimum GPA of 2.5 in the minor field and a grade of "C" or better in each of the minor courses. These must include: *MATH 2070 or MATH 2085 or MATH 2090*; *ME 2543 or* IE 2060 *or* CSC 1253 *or* CSC 1350; ENGR 3100; three courses from the approved list of CORE courses of which at least one must be outside of the student's major academic unit; and one course from the approved list of CAPSTONE courses. Of the 21 credit hours of coursework, 15 hours at most may overlap with the student's major academic degree.

# **Minor in Technical Sales**

Students in the College of Engineering wishing to earn a *minor in technical sales* must complete ACCT 2000, BLAW 3201 or CM 4211, ECON 2030, IE 3201 or FIN 3715 or PETE 3025, MGT 3200, MKT 3401, PHYS 1202, PHYS 2112 or PHYS 2113 or PHYS 2002, and CMST 1061, CMST 2010, CMST 2060 *or* CMST 2061.

For a list of all other minors within the College of Engineering, please see the individual departmental links above.

# **The Engineering Council**

The Engineering Council is a college-wide student organization whose members are the elected representatives of the various professional and honorary student organizations. In addition to the general goal of bridging organizational gaps between the different departments, the Engineering Council sponsors several student activities including an engineering newsletter.

# **Special Programs**

The LSU Olinde Career Center offers a *cooperative education program* in all curricula offered by the college. In some cases, course scheduling should be carefully coordinated with the department to ensure course availability. Students alternate periods of classroom attendance and employment, resulting in one year of work experience upon graduation. The Co-op Office will assist the student in obtaining employment in the student's area of interest. Although it may delay graduation, the program is an excellent opportunity to explore career choices and integrate classroom theory with industry practices. While employed, the student must also register, for a nominal fee, to be considered formally affiliated with the university. For additional information concerning this cooperative program, please see "Support Programs" in the section "Life at LSU."

# **Undergraduate Career Plan**

Students are encouraged to enrich their studies and prepare for their careers by using the Four Year Career Plan in addition to their academic course of study.

# **Department of Biological & Agricultural Engineering**

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# **Biological Engineering**

Biological engineering integrates applied biology into the fundamental principles of engineering for the purpose of designing processes and systems that influence, control, or utilize biological materials and organisms for the benefit of society. The discipline applies the principles of analysis, synthesis, and design to physical problems and processing systems associated with plants, animals, and humans, and their environments.

The overall educational goal of the Biological Engineering Program is to educate biological engineering students to be technically and professionally competent and to meet the requirements for professional registration.

The specific educational objective is to produce engineering graduates with the attributes to use basic principles to synthesize and analyze biological and physical systems, and more specifically demonstrate that they have:

- an ability to apply knowledge of mathematics, science, and engineering;
- an ability to design and conduct experiments, as well as to analyze and interpret data;
- an ability to design a system, component, or process to meet desired needs;
- an ability to function on multi-disciplinary teams;
- an ability to identify, formulate, and solve engineering problems;
- an understanding of professional and ethical responsibility;
- an ability to communicate effectively;
- the broad education necessary to understand the impact of engineering solutions in a global and societal context;
- a recognition of the need for, and an ability to engage in life-long learning;
- a knowledge of contemporary issues;
- an ability to use techniques, skills, and modern engineering tools necessary for the engineering practice.

The Biological Engineering (BE) curriculum includes the study of sciences (mathematics, physics, chemistry, and biology), humanities (arts, economics, and social sciences), applied biology (organic chemistry, microbiology, and physiology), engineering sciences (statics, dynamics, strength of materials, fluid mechanics, electrical principles, and thermodynamics), and engineering design. Students can select technical and engineering electives that enable them to pursue specific career interests. Elective courses can also be used to complete the requirements for minor programs in electrical engineering, environmental engineering, mechanical engineering, occupational health and safety, robotics, surveying, or technical sales.

An undergraduate education in biological engineering is an excellent preparation for graduate and professional studies in various fields of engineering (including biomedical engineering) and human or veterinary medicine. The curriculum teaches students the practical skills needed for professional engineering and the scientific understanding required to adapt to new situations.

Career opportunities in biological engineering include design, development, and implementation of technologies to recycle municipal waste and agricultural byproducts into viable sources of energy; systems to clean contaminated water and soil; equipment and procedures to prevent repetitive motion injuries; processing operations to ensure high quality foods; and machinery or sensors to be applied within human, animal, plant, and ecological systems. Graduates have the opportunity for local, national, or international work. Recent graduates are employed in large engineering firms, small consulting companies, and governmental agencies, or are pursuing graduate degrees.

A low student-to-faculty ratio in the department allows students to receive personal attention. Students also complete a senior design project that requires one-on-one direction from a faculty member. Numerous social activities with faculty, staff, and graduate students foster professional camaraderie that extends far beyond the classroom. Students may also gain professional insight and potential employment contacts through participation in a variety of national engineering and technical organizations.

The curriculum in biological engineering provides students with the skills needed to solve today's problems, and the knowledge required to master the rapid changes in technology and address the problems of tomorrow. This curriculum, offered through the College of Engineering, is accredited by the Engineering Accreditation Commission of ABET, www.abet.org. Graduates are prepared to take the *Fundamentals of Engineering* (FE) exam during their senior year, which is a first step for obtaining a Professional Engineering license.

# **Biological Engineering, B.S.B.E.**

# **Biological Engineering**

# **CRITICAL REQUIREMENTS**

SEMESTER 1: MATH 1022 or MATH 1023. SEMESTER 2: "C" or better in MATH 1550. SEMESTER 3: "C" or better in PHYS 2110. SEMESTER 4: "C" or better in CE 2450. SEMESTER 5: BE 2350.

# Semester 1

#### CRITICAL: MATH 1022/MATH 1023

- BE 1251 Introduction to Engineering Methods (2)
- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)
- CHEM 1201 General Chemistry I (3)
- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)

# Total Semester Hours: 17

# Semester 2

**CRITICAL:** "C" or better in MATH 1550

- BE 1252 Biology in Engineering (2)
- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1)
- CHEM 1202 General Chemistry (3)
- MATH 1552 Analytic Geometry and Calculus II (4)
- PHYS 2110 Particle Mechanics (3)

# Total Semester Hours: 16

# Semester 3

CRITICAL: "C" or better in PHYS 2110

- BE 2352 Quantitative Biology in Engineering (3)
- BIOL 2051 General Microbiology (4)
- CE 2450 Statics (3)
- MATH 2065 Elementary Differential Equations (3)
- EE 2950 Comprehensive Electrical Engineering (3)

# Total Semester Hours: 16

# Semester 4

#### **CRITICAL:** "C" or better in CE 2450

- BE 2350 Experimental Methods for Engineers (3)
- CE 3400 Mechanics of Materials (3)
- CHEM 1212 General Chemistry Laboratory (2)
- CHEM 2261 Organic Chemistry (3)
- ENGL 2000 English Composition (3)
- PHYS 2113 Fields: Gravity, Electricity, and Magnetism (3)

# Total Semester Hours: 17

# Semester 5

#### CRITICAL: BE 2350

- AGEC 2003 Introduction to Agricultural Economics (3) or
- ECON 2030 Economic Principles (3)
- BE 4303 Engineering Properties of Biological Materials (3)
- BIOL 2083 The Elements of Biochemistry (3)
- ME 3333 Thermodynamics (3)
- General Education course Humanities (3)

# **Total Semester Hours: 15**

# Semester 6

- BE 3340 Process Design in Biological Engineering (3)
- BE 4352 Transport Phenomena in Biological Engineering (3)
- CE 2200 Fluid Mechanics (3)

- BE 3290 Professionalism for Biological Engineers (2)
- Engineering Design Elective (3)
- General Education Course Humanities (3)

### Semester 7

- BE 3320 Mechanical Design for Biological Engineering (3)
- BE 4290 Senior Engineering Design (2)
- Engineering Design Elective (3)
- General Education course Art (3)
- Elective or ROTC (2)
- CE 2460 Dynamics and Vibrations (3)

### **Total Semester Hours: 16**

### Semester 8

- BE 4292 Senior Engineering Design Laboratory (2)
- General Education course Social Sciences (3)
- General Education course Humanities (3)
- Technical Elective or ROTC (3)
- Engineering Design Elective (3)

### **Total Semester Hours: 14**

### 128 Total Sem. Hrs.

Biological Engineering design electives: select three from the list maintained by the department.

### **Biological Engineering Minor**

Any student not majoring in biological engineering may obtain a *minor in biological engineering* by completing each of these courses with a grade of "C" or better: BIOL 1201, BIOL 1208, BIOL 1202, BIOL 1209, BIOL 2051, BE 3340, BE 4303, and two courses chosen from a list of approved Design Electives available in the Department of Biological & Agricultural Engineering's main office.

#### **Sugar Engineering Minor**

To earn a *minor in sugar engineering*, students in the College of Engineering must complete BE 4342 or BE 3340, BE 4989\*, BIOL 2083 *or* CHE 4260, EE 3950, ME 4433, and an approved design project. A grade of "C" or better in each course is required.

\*BE 4989 can only be taken when the topic is related to Sugar Engineering.

### Gordon A. and Mary Cain Department of Chemical Engineering

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Chemical engineers apply scientific principles to the solution of problems involving chemical and physical change. They design, install, and operate complete processes for the efficient production of materials and tailor the properties of materials for specific applications. Chemical engineers today play a direct professional role in such diverse areas as chemical processing; petroleum refining; pollution control and abatement; materials processing; biochemical engineering; instrumentation; computer automation, control, and modeling; biomedical engineering; oceanography; energy; food processing; systems engineering; and manufacturing.

Louisiana and the Gulf Coast region lead the nation in growth of the chemical, petroleum, and materials industries. In these industries, about 40 percent of the professional staffs are chemical engineers. Besides providing technical leadership for these industries, chemical engineers are a major source of management personnel. Chemical engineering also offers many opportunities for independent enterprise.

Chemical engineers must combine many different abilities in their work. These include an aptitude for chemistry, computer science, physics, mathematics, and economics; the capability of presenting decisions to management in a lucid and concise manner; and the ability to bring scientifically oriented talents to bear on practical problems.

The undergraduate curriculum is concerned primarily with fundamentals, and basic courses in mathematics, chemistry, and chemical engineering are required. Through a series of elective courses, students may select a formal concentration in one of three areas: biomolecular, environmental, or materials studies. Alternatively, students can use these electives to plan a program that emphasizes a subfield of their choice. The curriculum requires liberal amounts of arts, humanities, and social sciences electives to satisfy the university's general education and external accreditation requirements. These serve to prepare students for the responsibilities of citizenship, aside from a technical career.

Chemical engineers are among the highest-salaried graduates in engineering across the nation. In the foreseeable future, it is predicted that the supply of chemical engineers available to industry will not match the demand; consequently, the salary and job opportunities should continue to be favorable.

The chemical engineering curriculum has been continuously accredited by the Engineering Accreditation Commission of ABET, www.abet.org.

Following graduation our graduates are expected to:

- attain careers as engineering professionals in chemical, energy production, engineering design, biochemical or related industries;
- succeed in graduate programs in chemical and biomolecular engineering, medicine, business, law or other scientific/engineering disciplines;
- solve industrially relevant, open-ended engineering problems using appropriate tools and critical thinking capabilities; and
- succeed in leadership, management, and research roles in industry, academia, or government.

#### Student outcomes

- an ability to apply knowledge of mathematics, science, and engineering;
- an ability to design and conduct experiments, as well as to analyze and interpret data;
- an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability;
- an ability to function on multidisciplinary teams;

- an ability to identify, formulate, and solve engineering problems;
- an understanding of professional and ethical responsibility;
- an ability to communicate effectively;
- the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context;
- a recognition of the need for, and an ability to engage in life-long learning;
- a knowledge of contemporary issues;
- an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice;
- experience classroom and workplace interactions with local industry; and
- recognize and evaluate environmental, health, and safety issues.

Residence Requirement • Students must complete at least 18 residence hours of required chemical engineering courses, including CHE 4172, and exclusive of approved chemical engineering electives.

Prerequisite Requirement • Chemical Engineering majors must earn a grade of "C" or better in each of the basic sciences preparatory courses - BIOL 1201, CHEM 1201, CHEM 1202, MATH 1550, MATH 1552, MATH 2090, PHYS 2110, and PHYS 2113 - before registering for any chemical engineering course other than CHE 1100 and CHE 2171.

In addition, students must earn a "C" or better in CHE 2171, CHE 2176, CHE 3101, CHE 3102, CHE 3104, CHE 3171, CHE 3172 and CHE 3173 before registering for any subsequent course that requires one or more of these as a prerequisite.

# 3/2 Program in Chemistry and Chemical Engineering

The Department of Chemistry at Southern University and the Gordon A. and Mary Cain Department of Chemical Engineering at LSU offer a dual degree in chemistry and chemical engineering. The student, after successful completion of the required courses in both curricula, will be awarded a Bachelor of Science degree in Chemistry from Southern University and a Bachelor of Science in Chemical Engineering degree from LSU. The first three years of coursework are taken principally at Southern University and the last two years principally at LSU.

### Chemical Engineering, B.S.Ch.E.

# **Chemical Engineering**

#### CRITICAL REQUIREMENTS

SEMESTER 1: MATH 1022 or MATH 1023. SEMESTER 2: "C" or better in CHEM 1201, "C" or better in MATH 1550. SEMESTER 3: "C" or better in PHYS 2110 SEMESTER 4: 2.00 GPA in CHE courses SEMESTER 5: 2.00 GPA in CHE courses

Chemistry, Physics, Life Sciences and Mathematics Proficiency • A grade of "C" or better in each of the basic sciences preparatory courses–BIOL 1201; CHEM 1201 and CHEM 1202; PHYS 2110 and PHYS 2113; MATH 1550, MATH 1552, and MATH 2090–is required before students may register for any chemical engineering course other than CHE 1100 and CHE 2171.

In addition, students must earn a "C" or better in CHE 2171, CHE 2176, CHE 3101, CHE 3102, CHE 3104, CHE 3171, CHE 3172, and CHE 3173 before registering for any subsequent course that requires one or more of these as a prerequisite.

### Semester 1

#### CRITICAL: MATH 1022 or MATH 1023

- CHEM 1201 General Chemistry I (3)
- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- General Education course Humanities (3)
- CHE 1100 Introduction to Chemical Engineering (1)
- BIOL 1201 Biology for Science Majors I (3)

#### **Total Semester Hours: 18**

### Semester 2

**CRITICAL:** "C" or better in CHEM 1201 and "C" or better in MATH 1550

• CHEM 1202 General Chemistry (3)

- CHEM 1212 General Chemistry Laboratory (2)
- MATH 1552 Analytic Geometry and Calculus II (4)
- PHYS 2110 Particle Mechanics (3)
- General Education course Arts (3)

### Total Semester Hours: 15

### Semester 3

#### CRITICAL: "C" or better in PHYS 2110

- CHE 2171 Chemical Engineering Fundamentals: Material and Energy Balances (4)
- CHEM 2261 Organic Chemistry (3)
- MATH 2090 Elementary Differential Equations and Linear Algebra (4)
- PHYS 2113 Fields: Gravity, Electricity, and Magnetism (3)
- ENGL 2000 English Composition (3)

### Total Semester Hours: 17

### Semester 4

#### **CRITICAL:** 2.0 GPA in CHE courses

- CHE 2176 Numerical Methods and Programming for Chemical Engineers (4)
- CHEM 2262 Organic Chemistry (3)
- CHEM 2364 Organic Chemistry Laboratory (2)
- ECON 2030 Economic Principles (3)
- General Education course Social Sciences (3)

### **Total Semester Hours: 15**

### Semester 5

#### **CRITICAL:** 2.0 GPA in CHE courses

- CHE 3101 Transport Sciences: Momentum Transfer (3)
- CHE 3172 Chemical Engineering Thermodynamics (3)
- CHEM 3492 Physical Chemistry II (3)
- ME 2733 Materials of Engineering (3)
- General Education course Humanities (3)

### Semester 6

- CHE 3102 Transport Sciences: Heat and Mass Transfer (4)
- CHE 3104 Engineering Measurements Laboratory (3)
- CHE 3171 Introduction to Design and Process Safety (3)
- CHE 3173 Heterogeneous Equilibrium (3)
- Approved Elective/Area of Concentration course (3)

### Total Semester Hours: 16

### Semester 7

- CHE 4151 Unit Operations Design (4)
- CHE 4162 Unit Operations Laboratory (3)
- CHE 4190 Chemical Reaction Engineering (3)
- CHE 4198 Process Dynamics (3)
- Approved Elective/Area of Concentration course (3)

### Total Semester Hours: 16

### Semester 8

- CHE 4172 Process Design (4)
- Approved Electives/Area of Concentration courses (9)
- General Education course Humanities (3)

### **Total Semester Hours: 16**

### 128 Total Sem. Hrs.

### Areas of Concentration

Lists of approved area electives approved for the chemical engineering concentrations are available from the department. Depending on the particular area electives selected, students may be required to take one or more additional prerequisite course(s).

### Biomolecular

### **CRITICAL REQUIREMENTS**

SEMESTER 1: MATH 1022 or MATH 1023. SEMESTER 2: "C" or better in CHEM 1201, "C" or better in MATH 1550. SEMESTER 3: "C" or better in PHYS 2110. SEMESTER 4: 2.00 GPA in CHE courses SEMESTER 5: 2.00 GPA in CHE courses

#### Semester 1

#### CRITICAL: MATH 1022 or MATH 1023

- CHEM 1201 General Chemistry I (3)
- CHE 1100 Introduction to Chemical Engineering (1)
- BIOL 1201 Biology for Science Majors I (3)
- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- General Education course Humanities (3)

#### Total Semester Hours: 18

#### Semester 2

**CRITICAL:** "C" or better in CHEM 1201 and "C" or better in MATH 1550

- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- MATH 1552 Analytic Geometry and Calculus II (4)
- PHYS 2110 Particle Mechanics (3)
- General Education course Arts (3)

Total Semester Hours: 15

#### Semester 3

#### **CRITICAL:** "C" or better in PHYS 2110

- CHE 2171 Chemical Engineering Fundamentals: Material and Energy Balances (4)
- CHEM 2261 Organic Chemistry (3)
- MATH 2090 Elementary Differential Equations and Linear Algebra (4)

- PHYS 2113 Fields: Gravity, Electricity, and Magnetism (3)
- ENGL 2000 English Composition (3)

#### Semester 4

#### **CRITICAL:** 2.0 GPA in CHE courses

- CHE 2176 Numerical Methods and Programming for Chemical Engineers (4)
- CHEM 2262 Organic Chemistry (3)
- CHEM 2364 Organic Chemistry Laboratory (2)
- ECON 2030 Economic Principles (3)
- General Education course Social Sciences (3)

#### Total Semester Hours: 15

#### Semester 5

**CRITICAL:** 2.0 GPA in CHE courses

- CHE 3101 Transport Sciences: Momentum Transfer (3)
- CHE 3172 Chemical Engineering Thermodynamics (3)
- CHEM 3492 Physical Chemistry II (3)
- ME 2733 Materials of Engineering (3)
- General Education course Humanities (3)

#### Total Semester Hours: 15

#### Semester 6

- CHE 3102 Transport Sciences: Heat and Mass Transfer (4)
- CHE 3104 Engineering Measurements Laboratory (3)
- CHE 3171 Introduction to Design and Process Safety (3)
- CHE 3173 Heterogeneous Equilibrium (3)
- Approved Elective/Area of Concentration course (3)

#### Total Semester Hours: 16

Semester 7

- CHE 4151 Unit Operations Design (4)
- CHE 4162 Unit Operations Laboratory (3)
- CHE 4190 Chemical Reaction Engineering (3)
- CHE 4198 Process Dynamics (3)
- Approved Elective/Area of Concentration course (3)

#### Total Semester Hours: 16

#### Semester 8

- CHE 4172 Process Design (4)
- Approved Electives/Area of Concentration courses (9)
- General Education course Humanities (3)

#### Total Semester Hours: 16

128 Total Sem. Hrs.

### Environmental

### **CRITICAL REQUIREMENTS**

SEMESTER 1: MATH 1022 or MATH 1023. SEMESTER 2: "C" or better in CHEM 1201, "C" or better in MATH 1550. SEMESTER 3: "C" or better in PHYS 2110. SEMESTER 4: 2.00 GPA in CHE courses SEMESTER 5: 2.00 GPA in CHE courses

#### Semester 1

#### CRITICAL: MATH 1022 or MATH 1023

- CHEM 1201 General Chemistry I (3)
- CHE 1100 Introduction to Chemical Engineering (1)
- BIOL 1201 Biology for Science Majors I (3)
- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- General Education course Humanities (3)

#### Total Semester Hours: 18

#### Semester 2

# **CRITICAL:** "C" or better in CHEM 1201 and "C" or better in MATH 1550

- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- MATH 1552 Analytic Geometry and Calculus II (4)
- PHYS 2110 Particle Mechanics (3)
- General Education course Arts (3

#### Total Semester Hours: 15

#### Semester 3

#### CRITICAL: "C" or better in PHYS 2110

- CHE 2171 Chemical Engineering Fundamentals: Material and Energy Balances (4)
- CHEM 2261 Organic Chemistry (3)
- MATH 2090 Elementary Differential Equations and Linear Algebra (4)
- PHYS 2113 Fields: Gravity, Electricity, and Magnetism (3)
- ENGL 2000 English Composition (3)

#### Total Semester Hours: 17

#### Semester 4

#### **CRITICAL:** 2.0 GPA in CHE courses

- CHE 2176 Numerical Methods and Programming for Chemical Engineers (4)
- CHEM 2262 Organic Chemistry (3)
- CHEM 2364 Organic Chemistry Laboratory (2)
- ECON 2030 Economic Principles (3)
- General Education course Social Sciences (3)

#### Total Semester Hours: 15

#### Semester 5

#### **CRITICAL:** 2.0 GPA in CHE courses

- CHE 3101 Transport Sciences: Momentum Transfer (3)
- CHE 3172 Chemical Engineering Thermodynamics (3)
- CHEM 3492 Physical Chemistry II (3)

- ME 2733 Materials of Engineering (3)
- General Education course Humanities (3)

#### Total Semester Hours: 15

#### Semester 6

- CHE 3102 Transport Sciences: Heat and Mass Transfer (4)
- CHE 3104 Engineering Measurements Laboratory (3)
- CHE 3171 Introduction to Design and Process Safety (3)
- CHE 3173 Heterogeneous Equilibrium (3)
- Approved Elective/Area of Concentration course (3)

#### **Total Semester Hours: 16**

#### Semester 7

- CHE 4151 Unit Operations Design (4)
- CHE 4162 Unit Operations Laboratory (3)
- CHE 4190 Chemical Reaction Engineering (3)
- CHE 4198 Process Dynamics (3)
- Approved Elective/Area of Concentration course (3)

#### **Total Semester Hours: 16**

#### Semester 8

- CHE 4172 Process Design (4)
- Approved Elective/Area of Concentration courses (9)
- General Education course Humanities (3)

**Total Semester Hours: 16** 

128 Total Sem. Hrs.

#### Materials

### **CRITICAL REQUIREMENTS**

SEMESTER 1: MATH 1022 or MATH 1023. SEMESTER 2: "C" or better in CHEM 1201, "C" or better in MATH 1550. SEMESTER 3: "C" or better in PHYS 2110. SEMESTER 4: 2.00 GPA in CHE courses SEMESTER 5: 2.00 GPA in CHE courses

#### Semester 1

#### CRITICAL: MATH 1022 or MATH 1023

- CHEM 1201 General Chemistry I (3)
- CHE 1100 Introduction to Chemical Engineering (1)
- BIOL 1201 Biology for Science Majors I (3)
- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- General Education course Humanities (3)

#### Total Semester Hours: 18

#### Semester 2

**CRITICAL:** "C" or better in CHEM 1201 and "C" or better in MATH 1550

- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- MATH 1552 Analytic Geometry and Calculus II (4)
- PHYS 2110 Particle Mechanics (3)
- General Education course Arts (3)

#### Total Semester Hours: 15

#### Semester 3

#### **CRITICAL:** "C" or better in PHYS 2110

- CHE 2171 Chemical Engineering Fundamentals: Material and Energy Balances (4)
- CHEM 2261 Organic Chemistry (3)
- MATH 2090 Elementary Differential Equations and Linear Algebra (4)
- PHYS 2113 Fields: Gravity, Electricity, and Magnetism (3)
- ENGL 2000 English Composition (3)

#### Total Semester Hours: 17

#### Semester 4

#### **CRITICAL:** 2.0 GPA in CHE courses

- CHE 2176 Numerical Methods and Programming for Chemical Engineers (4)
- CHEM 2262 Organic Chemistry (3)
- CHEM 2364 Organic Chemistry Laboratory (2)
- ECON 2030 Economic Principles (3)
- General Education course Social Sciences (3)

#### Total Semester Hours: 15

#### Semester 5

#### **CRITICAL:** 2.0 GPA in CHE courses

- CHE 3101 Transport Sciences: Momentum Transfer (3)
- CHE 3172 Chemical Engineering Thermodynamics (3)
- CHEM 3492 Physical Chemistry II (3)
- ME 2733 Materials of Engineering (3)
- General Education course Humanities (3)

#### **Total Semester Hours: 15**

#### Semester 6

- CHE 3102 Transport Sciences: Heat and Mass Transfer (4)
- CHE 3104 Engineering Measurements Laboratory (3)
- CHE 3171 Introduction to Design and Process Safety (3)
- CHE 3173 Heterogeneous Equilibrium (3)
- Approved Elective/Area of Concentration course (3)

#### Total Semester Hours: 16

#### Semester 7

- CHE 4151 Unit Operations Design (4)
- CHE 4162 Unit Operations Laboratory (3)
- CHE 4190 Chemical Reaction Engineering (3)
- CHE 4198 Process Dynamics (3)
- Approved Elective/Area of Concentration course (3)

#### Semester 8

- CHE 4172 Process Design (4)
- Approved Electives/Area of Concentration courses (9)
- General Education course Humanities (3)

Total Semester Hours: 16

128 Total Sem. Hrs.

# **Department of Civil & Environmental Engineering**

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The Department of Civil & Environmental Engineering offers two curricula that are designed to provide a broad, but integrated education in the scientific, mathematical, engineering, sociohumanistic, and ethical principles that are the basis for a professional career. The curricula also provide sound preparation for continued professional development through informal studies, continuing education programs, or graduate study in a specialized engineering or related field. The philosophy of the faculty is to offer students a quality education, preparing them to enter any field of civil or environmental engineering. The department assists students in achieving the technological, communication, and interpersonal competencies, as well as a sensitivity to and understanding of socioeconomic issues, necessary for the professional practice of engineering.

For those students wishing to concentrate in environmental engineering, two opportunities are available. Students may pursue the more specialized environmental engineering curriculum leading to the BS in Environmental Engineering. Alternately, students may pursue the more specialized environmental engineering curriculum leading to the B.S. in Environmental Engineering. Alternatively, students pursuing the civil engineering degree may select 15 hours of electives during the senior year with emphasis on technical, socio-economical, and regulatory issues in environmental engineering.

In collaboration with external Civil and Environmental Engineering Program Advisory Committees, the faculty established the following program educational objectives for the undergraduate degree programs:

**Objective 1** – be active in practice, research, education, or management in their engineering and professional careers;

Objective 2 - display technical proficiency, innovation, analytical and problem-solving skills in the execution of their work;

Objective 3 - have the skills necessary to be an accomplished and technologically-advanced communicator;

**Objective 4** – be cognizant and appreciative of the need for life-long learning and if appropriate be a licensed professional engineer; and

Objective 5 – be engaged as an active member in their profession, community or other organizations that benefit society.

The department is committed to the continual improvement of its BS degree programs in civil engineering and environmental engineering. Specific outcome objectives have been established for the degree programs and will utilize the following measures for assessing the achievement of these objectives:

- technical and professional capabilities of students in open-ended project design courses
- faculty assessment of scientific/technical knowledge and ethical behavior of students
- student participation in professional organizations
- student performance on the *Fundamentals of Engineering* (FE) examination
- subsequent professional registration of graduates
- success of graduates in post-graduate degree programs

The data from these assessment measures will be evaluated and used as the basis for improvement of all elements of the degree programs.

# **Bachelor of Science Degree in Civil Engineering**

Civil engineering is a profession that advances the well-being of people, while improving and protecting the environment. A civil engineer gains knowledge of mathematics and physical sciences through study, experience, and practice. This knowledge is applied with judgment under economic constraints to provide facilities for living, industry, transportation, and a myriad of other activities. Civil engineering graduates can practice in the fields of structural, transportation, hydraulic, water resources,

geotechnical, construction, environmental, public works engineering, and surveying/geodesy. They are employed by private industry as well as governmental agencies and many ultimately establish their own consulting engineering businesses.

The philosophy of the department is to provide the students a broad background in key areas of civil engineering, and the opportunity for specialization through electives. Specifically, students take several courses each in the fields of structural, geotechnical, transportation, surveying, water resources, and environmental engineering. Eighteen hours of electives in the senior year provide the means for a student to specialize in one or two of these areas, if desired.

The graduates of the civil engineering program shall:

- be prepared to take a leading role in the provision, upkeep, and improvement of the state and national infrastructure in an efficient, economic, environmentally sensitive, and socially responsible manner;
- have an understanding of professional practice issues, understand their roles in a local and global societal context, and have the interpersonal and communication skills needed to be effective engineers;
- be prepared and motivated to become licensed professional engineers and to continue their education through professional development and post graduate programs;
- be proficient in analysis and structural, transportation, geotechnical, geodesy, and water resources engineering; and
- be proficient in laboratory and field measurements and the ability to design, conduct, and critically evaluate the results of experiments in the areas of hydraulics, construction materials, and geotechnical engineering.

The successful civil engineer is a registered professional engineer who affiliates with various professional and technical societies. The department recommends that its students join and participate in the Student Chapter of the American Society of Civil Engineers and encourages each senior to take the *Fundamentals of Engineering* (FE) examination that is a partial requirement for registration as a professional engineer.

The civil engineering program is accredited by the Engineering Accreditation Commission of ABET, www.abet.org.

# **Bachelor of Science Degree in Environmental Engineering**

Environmental engineering is a separate and distinct baccalaureate degree program within the Department of Civil & Environmental Engineering. As a discipline, environmental engineering is defined as "...the application of engineering principles to improve and maintain the environment for the protection of human health, for the protection of nature's beneficial ecosystems, and for environment-related enhancement of the quality of life." The degree program is broad based and encompasses resource management; conception, planning, design, construction and operation of engineered systems for the protection of human health; the protection and management of the environment; air, water (surface subsurface, and groundwater), and land interactions and transformations; the behavior of natural systems, including their response to the activities of man; professional responsibility; and multi-disciplinary efforts across private and public sectors to assure environmental protection. For achieving additional depth in specific areas of environmental engineering, elective courses are available in a range of topics including in-situ waste site remediation, computer modeling, use of natural systems for wastewater treatment, and special topics and design/research project courses.

The basic mission of the program is to provide the fundamental intellectual knowledge, when supplemented by professional experience that will provide the technical and interpersonal skills required to conceive, plan, design, and implement the systems needed to provide and ensure environmental protection for human health and the sustainability of our natural ecosystem.

The graduates of the environmental engineering program shall:

- possess the technical and professional skills needed to ensure that they are adequately prepared to enter and progress professionally in the practice of environmental engineering or progress academically in advanced areas of study;
- be proficient in the fundamentals of mathematics and statistics, computational methods, natural and physical sciences, and chemical, civil, and environmental engineering sciences necessary to communicate and collaborate effectively with a broad spectrum of environmental professionals;
- have an introductory level of knowledge of environmental issues associated with air, land, and water systems and associated environmental health impacts;
- be proficient to conduct laboratory experiments and analyze and interpret data in the areas of soil properties and behavior, water quality and unit operations-physical, chemical, and biological;

- have the ability to perform engineering analysis and design of water, air, and land treatment/protection systems that minimize risk to the environment and public health;
- have an understanding of concepts of professional practice and the roles and responsibilities of public institutions and private organizations pertaining to environmental engineering and the interpersonal and communication skills needed to be effective engineers and citizens; and
- become licensed professional engineers and continue their education through professional development and post graduate programs.

Students are encouraged to participate in the activities of the student chapters of the Louisiana Water Environment Association, the American Society of Civil Engineers, the Air and Water Management Association, and Engineers Without Borders. Other professional organizations that may be of interest to students include the National Society of Black Engineers, the Society of Women Engineers, and the Environmental Conservation Organization (ECO).

The department encourages each senior to take the *Fundamentals of Engineering* (FE) examination that is a partial requirement for registration as a professional engineer.

The environmental engineering program is accredited by the Engineering Accreditation Commission of ABET, www.abet.org.

### **Civil Engineering, B.S.C.E.**

### **Civil Engineering**

### **CRITICAL REQUIREMENTS**

SEMESTER 1: MATH 1022 or MATH 1023. SEMESTER 2: "C" or better in MATH 1550. SEMESTER 3: CHEM 1201. SEMESTER 4: "C" or better in MATH 1552. SEMESTER 5: "C" or better in PHYS 2110.

Civil Engineering majors must earn a grade of "C" or better in CHEM 1202, PHYS 2110, PHYS 2112, MATH 1550, MATH 1552, MATH 2057, CE 2200, CE 2450, CE 2460, and CE 3400 before registering for any subsequent courses that require the above as prerequisites.

### Semester 1

#### CRITICAL: MATH 1022/MATH 1023

- CHEM 1201 General Chemistry I (3)
- ENGL 1001 English Composition (3)
- GEOL 1001 General Geology: Physical (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- Basic Science Lab Elective (1)

#### **Total Semester Hours: 15**

### Semester 2

**CRITICAL:** "C" or better in MATH 1550.

- CE 2700 Introduction to Civil Engineering Practice (1)
- CHEM 1202 General Chemistry (3)
- MATH 1552 Analytic Geometry and Calculus II (4)
- PHYS 2110 Particle Mechanics (3)
- General Education course Natural Sciences (3)

#### Total Semester Hours: 14

#### Semester 3

CRITICAL: CHEM 1201.

- CE 2450 Statics (3)
- MATH 2057 Multidimensional Calculus (3)
- EXST 2201 Introduction to Statistical Analysis (4)
- PHYS 2112 Fluids, Thermodynamics, Waves, and Modern Physics (3)
- General Education Course Arts (3)

#### **Total Semester Hours: 16**

### Semester 4

#### **CRITICAL:** "C" or better in MATH 1552.

- CE 2200 Fluid Mechanics (3)
- CE 2460 Dynamics and Vibrations (3)
- CE 3400 Mechanics of Materials (3)
- CE 3700 Engineering Materials Laboratory (1)
- MATH 2065 Elementary Differential Equations (3)
- EE 2950 Comprehensive Electrical Engineering (3)

### **Total Semester Hours: 16**

### Semester 5

#### **CRITICAL:** "C" or better in PHYS 2110.

- CE 2250 Fluid Mechanics Laboratory (1)
- CE 3410 Mechanics of Materials Laboratory (1)
- CE 3500 Plane Surveying and Measurements (3)
- CE 3300 Geotechnical Engineering I (3)
- CE 3415 Structural Analysis I (3)
- ENGL 2000 English Composition (3)

#### Total Semester Hours: 14

### Semester 6

- CE 3350 Geotechnical Engineering Laboratory I (1)
- ECON 2030 Economic Principles (3)
- CE 4410 Principles of Reinforced Concrete (3)
- EVEG 3110 Water and Wastewater Treatment (3)

- EVEG 3200 Water Resources Engineering (3)
- CE 3600 Principles of Highway and Traffic Engineering (3)

### Semester 7

- CE 4200 Hydrology (3)
- CE 4750 Professional Issues and Concept Design in Civil Engineering (2)
- General Education course Humanities (6)
- CE Design Elective: CE 4300 or CE 4310 or CE 4600 or CE 4670 (3)

### Total Semester Hours: 14

### Semester 8

- CE Analysis Elective or Design Elective (3)
- CE Project Elective (3)
- General Education course Humanities (3)
- Analysis/Design/Technical Elective or ROTC (3)
- General Education Course Social Sciences (3)

#### **Total Semester Hours: 15**

### 120 Total Sem. Hrs.

### **Environmental Engineering, B.S.Ev.E.**

### **Environmental Engineering**

### **CRITICAL REQUIREMENTS**

SEMESTER 1: MATH 1022 or MATH 1023. SEMESTER 2: "C" or better in MATH 1550. SEMESTER 3: CHEM 1201. SEMESTER 4: "C" or better in MATH 1552. SEMESTER 5: "C" or better in PHYS 2110.

### Semester 1

#### CRITICAL: MATH 1022/MATH 1023

• BIOL 1201 Biology for Science Majors I (3)

- BIOL 1208 Biology Laboratory for Science Majors I (1)
- CHEM 1201 General Chemistry I (3)
- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- EVEG 1050 Introduction to Environmental Engineering (1)

### **Total Semester Hours: 16**

### Semester 2

#### CRITICAL: "C" or better in MATH 1550

- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- GEOL 1001 General Geology: Physical (3)
- MATH 1552 Analytic Geometry and Calculus II (4)
- PHYS 2110 Particle Mechanics (3)
- General Education Courses Arts/Humanities/Social Sciences (3)

### **Total Semester Hours: 18**

### Semester 3

#### CRITICAL: CHEM 1201.

- CE 2450 Statics (3)
- MATH 2065 Elementary Differential Equations (3)
- EVEG 2050 Environmental Engineering Design Methods (1)
- EVEG 2000 Environmental Engineering I (3)
- CHEM 2060 Survey of Organic Chemistry (3) or
- CHEM 2261 Organic Chemistry (3)
- PHYS 2112 Fluids, Thermodynamics, Waves, and Modern Physics (3)

### **Total Semester Hours: 16**

#### Semester 4

#### **CRITICAL:** "C" or better in MATH 1552.

- CE 2200 Fluid Mechanics (3)
- EVEG 3400 Environmental Engineering II (3)
- EXST 2201 Introduction to Statistical Analysis (4)
- EVEG 3145 Environmental Engineering III (3)
- ENGL 2000 English Composition (3)

### Semester 5

**CRITICAL:** "C" or better in PHYS 2110.

- CE 2250 Fluid Mechanics Laboratory (1)
- EVEG 3050 Global Issues in Environmental Engineering (1)
- EVEG 3120 Chemical Equilibrium and Kinetics of Environmental Processes (3)
- EVEG 3200 Water Resources Engineering (3)
- EVEG 4136 Water Quality Analysis Laboratory (1)
- EVEG 3110 Water and Wastewater Treatment (3)
- General Education course -Arts/Humanities/Social Sciences (3)

### **Total Semester Hours: 15**

### Semester 6

- CE 3300 Geotechnical Engineering I (3)
- EVEG 4105 Quantitative Water Management (3)
- EVEG 4125 Environmental Transport Processes (3)
- ECON 2030 Economic Principles (3)
- CE 3350 Geotechnical Engineering Laboratory I (1)
- General Education course -Arts/Humanities/Social Sciences (3)

### **Total Semester Hours: 16**

### Semester 7

- EVEG 4120 Design of Solid and Hazardous Waste Management Systems (3)
- EVEG 4150 Integrated Environmental System Design I (3)
- CE 4200 Hydrology (3)
- EVEG Track Course A (3)
- General Education course -Arts/Humanities/Social Sciences (3)

### Total Semester Hours: 15

### Semester 8

- CHE 4253 Introduction to Industrial Pollution Control (3)
- CE 4250 Ground Water (3)
- EVEG 4110 Unit Operations Laboratory (1)
- EVEG 4151 Integrated Environmental System Design II (3)
- EVEG Track Course B (3)
- General Education course -Arts/Humanities/Social Sciences (3)

Total Semester Hours: 16

128 Total Sem. Hrs.

#### **Environmental Engineering Minor**

To earn a *minor in environmental engineering*, students in the College of Engineering must complete EVEG 3200 and EVEG 3110 and five courses chosen from a list of approved courses available in the dean's office.

#### **Structural Engineering Minor**

To earn a *minor in structural engineering*, a student must complete CE 3415, CE 4400, CE 4410, CE 4430 or CE 4460, CE 4435, and two additional courses chosen from an approved list (CE 4420, CE 4440, CE 4450, and no more than one of CE 4300/CE 4310/CE 4660.) The additional technical/design/analysis electives are available in the dean's office. A grade of "C" or better in each course is required.

#### **Surveying Minor**

To earn a *minor in surveying*, a student must complete CE 3500, CE 4500, CE 4520, CE 4530, and CE 4550. The State of Louisiana Revised Statutes 37:693.B(3b) and (4f) specify the educational requirements necessary for licensing as a Professional Land Surveyor. Additional courses will be required by the board for the land surveyor license. A list of required and elective courses may be obtained from the Louisiana Professional Engineers and Land Surveyors registration board (LAPELS).

#### **Transportation Engineering Minor**

To earn a *minor in transportation* engineering, a student must complete, with a grade of "C" or better in each course: CE 3600, CE 4600, CE 4650, CE 4670, EXST 2201, and three additional courses chosen from an approved list of technical/design/analysis electives available in the dean's office.

### Bert S. Turner Department of Construction Management

OFFICE	3319 Patrick F. Taylor Hall
TELEPHONE	225-578-5112
FAX	225-578-5109
WEBSITE:	www.cm.lsu.edu

# **Bachelor of Science Degree in Construction Management**

Construction management is the business side of construction. Modern construction has been rapidly evolving, incorporating sophisticated new construction technologies and new information-driven management practices to drive productivity improvements. These changes have in turn driven a high demand for graduates who can effectively use these technologies and business practices.

The department recognizes that its construction management graduates are professional constructors, distinct from engineers and architects. The curriculum is a designed blend of the technical, legal, business, management, and engineering aspects of the construction industry. The Construction Management program at LSU develops professional leaders who possess skills to successfully manage the execution of any construction project in the private or public sector. Students can seek an emphasis in industrial, commercial, highway, or residential fields.

Graduating seniors are to take the American Institute of Constructors (AIC) Associate Constructor (AC) Level I Exam and the departmental Senior Exit Exam. The faculty facilitates these exams within the required CM 4202 course. The exams are administered as a preparation for certification as a Professional Constructor.

The construction management curriculum is accredited by the American Council for Construction Education (ACCE). Upon completion of the degree program, construction management students will be able to:

- create oral presentations appropriate to the construction discipline
- create written communications appropriate to the construction discipline
- apply construction management skills as an effective member of a multi-disciplinary team
- analyze professional decisions based on ethical principles
- analyze methods, materials, and equipment used to construct projects
- understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process
- analyze construction documents for planning and management of construction processes
- understand the basic principles of structural behavior
- understand the basic principles of mechanical, electrical, and plumbing systems
- understand the basic principles of sustainable construction
- apply basic surveying techniques for construction layout and control
- create construction project cost estimates
- create construction project schedules
- understand construction accounting and cost control
- understand construction risk management
- understand the legal implications of contract, common, and regulatory law to manage a construction project
- create a construction project safety plan
- understand construction project control processes
- understand construction quality assurance and control
- apply appropriate state-of-the-art electronic-based technology to manage the construction process

### **Post-Baccalaureate Certificate in Construction Management**

The Bert S. Turner Department of Construction Management also offers a Post-Baccalaureate Certificate in Construction Management. This is an <u>online program</u> designed for career-change, post-baccalaureate students; therefore, please see the LSU Online Orientation Catalog for more information.

A post-baccalaureate certificate, as defined by the Board of Regents, is "an academic offering that is earned after a student has already completed a recognized baccalaureate degree."

### **Construction Management, B.S.C.M.**

### **Construction Management**

### **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in MATH 1550. SEMESTER 2: "C" or better in CM 1011 and CM 1112 SEMESTER 3: "C" or better in PHYS 2001 and CM 2112 SEMESTER 4: "C" or better in CM 2113, CM 2116, and CM 2501; "C" or better in PHYS 2002 SEMESTER 5: "C" or better in CM 3111 and CM 3502

Admission into the College of Engineering is required for construction management majors prior to taking any construction management course numbered above CM 2112.

A grade of "C" or better is required in all CM courses and prerequisite courses; ENGL 1001 and ENGL 2000; MATH 1550; PHYS 2001 and PHYS 2002.

Registration in any CM course above CM 2112 is restricted to students admitted to a senior college with a declared CM major or minor.

### Semester 1

#### CRITICAL: "C" or better in MATH 1550

- CM 1011 Introduction to Construction Management (3)
- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- General Education course Arts (3)
- General Education course Humanities (3)

#### Total Semester Hours: 17

### Semester 2

**CRITICAL:** "C" or better in CM 1011 and CM 1112

- CM 1112 Construction Materials and Methods I (3)
- CSC 1240 Statistics and Graphics with MATLAB (3)

- ISDS 1100 Introduction to Management Information Systems (3)
- ENVS 1126 Introduction to Environmental Sciences (3)
- General Education course Humanities (3)

### **Total Semester Hours: 15**

### Semester 3

**CRITICAL:** "C" or better in PHYS 2001 and CM 2112

- ACCT 2000 Survey of Accounting (3)
- CM 2112 Construction Materials and Methods II (3)
- ECON 2030 Economic Principles (3)
- PHYS 2001 General Physics I (3)
- CMST 1061 Fundamentals of Communication (3) or
- CMST 2060 Public Speaking (3)

### Total Semester Hours: 15

### Semester 4

**CRITICAL:** "C" or better in CM 2113, CM 2116, and CM 2501; "C" or better in PHYS 2002

- CM 2113 Construction Equipment (3)
- CM 2116 Construction Plan Reading (3)
- PHYS 2002 General Physics II (3)
- CM 2501 Structural Principles and Practices (3)
- CM 2105 Construction Surveying (3)

#### **Total Semester Hours: 15**

### Semester 5

**CRITICAL:** "C" or better in CM 3111 and CM 3502

- CM 3111 Construction Estimating (3)
- CM 3502 Construction and Civil Materials (3)
- BLAW 3201 Business Law (3)
- ENGL 2000 English Composition (3)
- Industry Emphasis Area Course (3)<sup>1</sup>

### Semester 6

- CM 3201 Mechanical and Electrical Systems (3)
- CM 3503 Soils in Construction (3)
- CM 4101 Construction Scheduling and Cost Control (3)
- CM 4211 Construction Contracting (3)
- Industry Emphasis Area Course (3)<sup>1</sup>

### **Total Semester Hours: 15**

### Semester 7

- CM 2215 Construction Safety (3)
- CM 3504 Applied Structural Design (3)
- CM 4221 Construction Project Management (3)
- FIN 3715 Business Finance (3)
- Industry Emphasis Area Course (3)<sup>1</sup>

### Total Semester Hours: 15

### Semester 8

- CM 4202 Construction Enterprise (3)
- MKT 3401 Principles of Marketing (3)
- MGT 3200 Principles of Management (3)
- Industry Emphasis Area Course (3)<sup>1</sup>
- General Education course Social Sciences (3)

### Total Semester Hours: 15

### 122 Total Sem. Hrs.

<sup>1</sup> - Industry Emphasis Area Courses: Consult the department advisor for a list of courses.

#### **Construction Management Minor**

To graduate with a *minor in construction management*, non-majors must complete CM 1112, CM 2113, CM 2116, CM 3111, CM 4101 and CM 4221. Registration in any CM course above CM 2112 is restricted to students admitted to a senior college with a declared CM major or minor. A grade of "C" or better is required in each course.

#### **Post-Baccalaureate Certificate in Construction Management**

#### (CCM)

The Post-Baccalaureate Certificate in Construction Management will be conferred upon students who demonstrate work of high merit that entails scholarship and outstanding academic achievement through six online core Construction Management courses specifically designed for the program. Students who complete the requirements will acquire a perspective and the needed basic skills of a construction manager in both industry and society. This online program will prepare career change graduate students (especially those in architecture and business) or qualified military personnel. The Post-Baccalaureate Certificate in Construction Management also helps to prepare individuals who want to take the American Institute of Constructors (AIC) Associate Constructor Level I Exam and provides the basic leveling courses required for needed for most construction management/science graduate programs in the US.

\*The LSU Board of Supervisors may modify tuition and/or fees at any time without advance notice.

This is an <u>online program</u> designed for career-change, post-baccalaureate students; therefore, please see the LSU Online Orientation Catalog for more information.

A post-baccalaureate certificate, as defined by the Board of Regents, is "an academic offering that is earned after a student has already completed a recognized baccalaureate degree."

# School of Electrical Engineering & Computer Science

# **Division of Electrical and Computer Engineering**

OFFICE3325 Patrick F. Taylor HallTELEPHONE225-578-5241FAX225-578-5200WEBSITEwww.lsu.edu/eng/ece

Electrical and computer engineering are primarily concerned with the generation, transmission, control, and distribution of electric energy, signals, and information. The division offers undergraduate and graduate programs and conducts research to serve the needs of the state and the nation.

Today's high technology life comprising ubiquitous smart phones, tablet PCs, automated controls, reliable power, and internet connectivity is made possible by electrical and computer engineering disciplines. The division offers courses in the major areas of communications, computers, control systems, physical electronics, and power systems.

# **Program Educational Objectives**

The electrical and computer engineering programs at Louisiana State University strive to prepare students to pursue successful professional careers in a global marketplace and/or pursue advanced degrees. The following program objectives focus on achievements of our graduates within five years of graduation:

- Graduates will demonstrate ability to engage in life-long learning through advanced education/degrees, professional development activities, or other career-appropriate options.
- Graduates employed in the electrical and computer engineering industry will demonstrate ability to succeed in leadership roles in their organizations through their technical skills, effective teamwork abilities, communication capabilities or other manifestations of their capability.
- Graduates who attend graduate school will succeed in graduate studies.

### **Student Outcomes**

In order to meet the program objectives, a graduate of the program will have accomplishments consistent with the criteria for accrediting engineering programs specified by the Engineering Accreditation Commission of ABET, www.abet.org.

Electrical and computer engineering students receive a thorough foundation in mathematics, physics, and introductory engineering during the first two years. This includes a freshman course introducing electrical and computer engineering. Emphasis during the junior and senior years is on advanced engineering concepts and design. Engineering design is introduced starting in the freshman year so that by the time students reach senior status they are prepared to take required capstone design and other courses dealing primarily with design. The senior courses utilize the previously gained knowledge in solving real-life problems. This prepares students for excellent career opportunities in areas such as computer engineering, energy conversion, power systems, communications, network design, control systems, electronics, and signal processing, as well as many interdisciplinary areas such as robotics and digital media. With the background in fundamental theory and laboratory practice provided in the curricula, graduates are prepared to contribute and progress in their chosen technological fields.

The division offers two programs of study–electrical engineering and computer engineering. Both programs are accredited by the Engineering Accreditation Commission of ABET, www.abet.org.

The electrical engineering curriculum provides a broad background in electrical engineering through the required course sequence. The computer engineering curriculum is available for students desiring more comprehensive knowledge of the principles that underlie the organization, design, and application of computer systems. Elective courses permit students to obtain depth in a chosen area of electrical and computer engineering, explore other areas of electrical and computer engineering, or explore other fields of engineering and science.

A student must take *all* of the required courses in either the electrical engineering or the computer engineering curriculum, as stated below, in order to obtain a degree.

Students interested in continuing their education through master's and doctoral programs are advised to seek academic counseling early and to make judicious use of their undergraduate electives.

# **Division of Computer Science and Engineering**

OFFICE3325 Patrick F. Taylor HallTELEPHONE225-578-1495FAX225-578-1465WEBSITEwww.cse.lsu.edu

The mission of the program is to instill in the student theoretical and applied practical skills needed to solve challenging problems using a computer. Graduates of the program use such concepts as abstraction and complexity analysis to solve innovative problems or to orchestrate evolutionary change as applied to the development of software. The program provides a strong foundation such that students can build on their skill sets as the field rapidly evolves.

### **Program Educational Objectives**

- to apply and continuously acquire knowledge, both theoretical and applied, related to core areas of computer science
- to solve diverse and unique problems in software design and development processes
- to work productively as computer professionals (in traditional careers, graduate school, or academia) by:
  - o demonstrating effective use of oral and written communication
  - working competently as a member of a team unit
  - o adhering to ethical standards in the profession

In order to meet the program objectives, a graduate of the program will have accomplishments consistent with the general criteria for student outcomes specified by the Computing Accreditation Commission of ABET, www.abet.org.

The undergraduate computer science curriculum is structured around basic courses in computer science and mathematics and is accredited by the Computing Accreditation Commission of ABET, www.abet.org. The curriculum is designed to allow a flexible plan of study via the mandatory selection of one of four concentrations: *cloud computing and networking, data science and analytics, software engineering,* and *computer science and a second discipline*. A concentration should be declared at the beginning of the sophomore year. If the second discipline concentration is selected, an approval form must be completed and approved by the department and the Office of Engineering Student Services.

Computer science students are cautioned to verify course descriptions in the catalog noting where duplication of course credits may be prohibited. Additionally, computer science students will not receive degree credit for the following courses: CSC 1240; ELRC 4006; EXST 2201; ISDS 2000, ISDS 2001, ISDS 2010, ISDS 2011, ISDS 3070, ISDS 3075; PSYC 4111; and SOCL 2201.

### **Computer Engineering, B.S.Comp.E.**

### **Computer Engineering**

### **CRITICAL REQUIREMENTS**

SEMESTER 1: MATH 1022 or MATH 1023

SEMESTER 2: "C" or better in MATH 1550

SEMESTER 3: "C" or better in MATH 1552 and "C" or better in EE 2741

SEMESTER 4: "C" or better in EE 2120

SEMESTER 5: "C" or better in EE 2130

A prerequisite to any electrical engineering course may be met only by obtaining a "C" or better in each course cited as a prerequisite. This rule does not apply to EE 2950 or EE 3950.

### Semester 1

#### CRITICAL: MATH 1022 or MATH 1023

- EE 1810 Introduction to Engineering: Electrical and Computer Engineering (2)
- CHEM 1201 General Chemistry I (3)
- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- General Education course Arts/Humanities/Social Sciences (3)

### Total Semester Hours: 16

### Semester 2

#### **CRITICAL:** "C" or better in MATH 1550

- EE 2741 Digital Logic I (3)
- CSC 1253 Computer Science I with C++ (3)
- PHYS 2110 Particle Mechanics (3)
- PHYS 2108 Introductory Physics Laboratory (1)
- MATH 1552 Analytic Geometry and Calculus II (4)
- General Education course Natural Sciences (3)

### **Total Semester Hours: 17**

### Semester 3

**CRITICAL:** "C" or better in MATH 1552 and "C" or better in EE 2741

- EE 2120 Circuits I (3)
- EE 2742 Digital Logic II (2)
- MATH 2070 Mathematical Methods in Engineering (4)
- CSC 1254 Computer Science II with C++ (3)
- PHYS 2113 Fields: Gravity, Electricity, and Magnetism (3)

### **Total Semester Hours: 15**

### Semester 4

#### **CRITICAL:** "C" or better in EE 2120

- EE 2130 Circuits II (3)
- EE 2230 Electronics I (3)
- EE 2231 Electronics Laboratory I (2)
- EE 2810 Tools in Electrical and Computer Engineering (2)
- MATH 2057 Multidimensional Calculus (3)
- ENGL 2000 English Composition (3)

### **Total Semester Hours: 16**

### Semester 5

#### **CRITICAL:** "C" or better in EE 2130

- EE 3150 Probability for Electrical and Computer Engineering (3)
- PHIL 2018 Professional Ethics (3) or
- PHIL 2020 Ethics (3)
- EE 3755 Computer Organization (3)
- EE 3752 Microprocessor Systems (3)
- General Education course Social Sciences (2000-level) (3)
- Approved Breadth Elective (3)<sup>1</sup>

### Semester 6

- CSC 3102 Advanced Data Structures and Algorithm Analysis (3)
- EE 3710 Communications in Computing (3)
- EE 4740 Discrete Structures for Computer Engineering (3)
- General Education courses -Arts/Humanities/Social Sciences (6)

### Total Semester Hours: 15

### Semester 7

- CSC 4103 Operating Systems (3)
- EE 4810 Senior Design I (3)
- EE 4755 Digital Design Using Hardware Description Languages (3)
- EE Design Elective (3)
- Approved Technical Elective (3)

### Total Semester Hours: 15

### Semester 8

- EE 4720 Computer Architecture (3)
- EE 4820 Senior Design II (3)
- EE Design Elective (3)
- Approved Technical Elective (3)
- General Education course
   Arts/Humanities/Social Sciences (3)

### **Total Semester Hours: 15**

### 127 Total Sem. Hrs.

<sup>1</sup> – Approved Breadth Elective: Select one course from the list: EE 3160, EE 3220, EE 3320, EE 3410, EE 3530, EE 3610.

### **Computer Science**, **B.S.**

### Areas of Concentration

### Cloud Computing and Networking

### **CRITICAL REQUIREMENTS**

SEMESTER 1: MATH 1021 SEMESTER 2: "C" or better in ENGL 1001 SEMESTER 3: "C" or better in MATH 1550/MATH 1551 SEMESTER 4: "C" or better in CSC 2259 SEMESTER 5: MATH 2090

A grade of "C" or better is required in all CSC prerequisite courses; CSC 3200, CSC 4101, CSC 4103 and CSC 4330; MATH 1550 and MATH 1552; BIOL 1001 or BIOL 1201 and all science prerequisite courses including laboratory courses.

### Semester 1

#### CRITICAL: MATH 1021

- CSC 1350 Computer Science I for Majors (4)
- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- General Education course Natural Sciences (3)<sup>1</sup>

#### Total Semester Hours: 15

#### Semester 2

#### **CRITICAL:** "C" or better in ENGL 1001

- CSC 1351 Computer Science II for Majors (4)
- MATH 1552 Analytic Geometry and Calculus II (4)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Humanities (English/Honors 2000-level) (3)
- General Education course Natural Sciences Lab (1)<sup>1</sup>

### Total Semester Hours: 15

#### Semester 3

**CRITICAL:** "C" or better in MATH 1550/MATH 1551

• CSC 2259 Discrete Structures (3)

- CSC 3102 Advanced Data Structures and Algorithm Analysis (3)
- MATH 2090 Elementary Differential Equations and Linear Algebra (4)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Natural Sciences Lab (1)<sup>1</sup>
- General Education course Humanities (3)

#### Semester 4

CRITICAL: "C" or better in CSC 2259

- CSC 2262 Numerical Methods (3)
- CSC 2610 Cloud Fundamentals & Web Programming (3)
- CSC 4103 Operating Systems (3)
- ENGL 2000 English Composition (3)
- General Education course Humanities (Communication Studies course) (3)

#### **Total Semester Hours: 15**

#### Semester 5

#### CRITICAL: MATH 2090

- CSC 4402 Database Systems (3)
- CSC 4501 Computer Networks (3)
- CSC 4610 Cloud Systems and Virtualization (3)
- IE 3302 Engineering Statistics (3) <sup>5</sup>
- Approved Technical Electives (3)<sup>4</sup>

#### **Total Semester Hours: 15**

#### Semester 6

- CSC 3380 Object Oriented Design (3)
- CSC 3501 Computer Organization and Design (3)
- General Education Course Social Sciences (3)
- Approved Technical Elective (3)<sup>4</sup>
- Approved CCN Area Elective (3)<sup>2</sup>

#### Total Semester Hours: 15

### Semester 7

- CSC 3200 Ethics in Computing (1)
- CSC 4330 Software Systems Development (3)
- CSC 4101 Programming Languages (3)
- Approved CCN Area Elective (3)<sup>2</sup>
- Approved Electives (3)
- General Education course Social Sciences (2000-level) (3)

#### **Total Semester Hours: 16**

#### Semester 8

- CSC (2000-level or above) Elective (3)<sup>3</sup>
- CSC (3000-level or above) Elective (3)<sup>3</sup>
- Approved Electives (3)
- General Education course Arts (3)

#### Total Semester Hours: 12

### 120 Total Sem. Hrs.

Computer science students are cautioned to verify course descriptions in the catalog noting where duplication of course credits may be prohibited. Additionally, computer science students will not receive degree credit for the following courses: CSC 1240; ELRC 4006; EXST 2201; ISDS 2000, ISDS 2001, ISDS 2010, ISDS 2011, ISDS 3070, ISDS 3075; PSYC 4111; and SOCL 2201.

<sup>1</sup> - For General Education Natural Science, two six-hour sequences in both physical and life sciences must be taken; one sequence must include two additional hours of lab work. One sequence must be from the Biological Sciences (BIOL) and the physical science sequence selected from Astronomy, Chemistry, Geology and Physics.

<sup>2</sup> – APPROVED CCN AREA ELECTIVES (6 hours required): No more than two elective courses from the same department; CSC 4444, CSC 4512, CSC 4585; EE 4625, EE 4660; IE 4426; ISDS 4120, ISDS 4123; MATH 3355, MATH 4023, MATH 4025, MATH 4171, MATH 4172, MATH 4325; other electives subject to approval.

 $^{3}$  – The selection of the CSC 2000-level or above elective (3 cr. hrs.) and the CSC 3000-level or above elective (3 cr. hrs.) is not restrictive to topics related to Cloud Computing and Networking.

<sup>4</sup> – APPROVED TECHNICAL ELECTIVES: Three hours of elective credits must be selected from **Group A** and three hours of elective credits selected from Group A or Group B.

**GROUP A**: 2000-level and above only chosen from CSC, BE, CHE, CE, CM, EE, ENGR, EVEG, IE, ME, PETE, EMS, ENVS, OCS, MATH, ECON, FIN, ASTR, BIOL, CHEM, GEOG, GEOL, PHYS, ISDS 3100, ISDS 3105, ISDS 3120.

**GROUP B**: ART 2050, ART 2055, ART 2551, ART 4020, ART 4050, ART 4055, ART 4550, ART 4059, ART 4560, ARTH 4466, ARTH 4468, ARTH 4480, ARTH 4482, ARTH 4484, MC 4015, MC 4260, MUS 2745, MUS 4745, MUS 4746, ENGL 2009, ENGL 2231, ENGL 4000, ENGL 4009, ENGL 7109.

<sup>5</sup> – Credit will not be applied to the degree for courses with overlapping content. For clarification, contact the division's academic adviser. Students who have completed the prerequisites may substitute:

EE 4740 for CSC 2259 but not both

EE 3755 for CSC 3501 but not both

MATH 3355 or EE 3150 or EXST 4050 for IE 3302.

# Computer Science & Second Discipline

### **CRITICAL REQUIREMENTS**

SEMESTER 1: MATH 1021

SEMESTER 2: "C" or better in ENGL 1001 SEMESTER 3: "C" or better in MATH 1550/MATH 1551 SEMESTER 4: "C" or better in CSC 2259 SEMESTER 5: MATH 2090

A grade of "C" or better is required in all CSC prerequisite courses; CSC 3200, CSC 4101, CSC 4103 and CSC 4330; MATH 1550 and MATH 1552; BIOL 1001 or BIOL 1201 and all science prerequisite courses including laboratory courses.

#### Semester 1

#### CRITICAL: MATH 1021

- CSC 1350 Computer Science I for Majors (4)
- ENGL 1001 English Composition (3)

- MATH 1550 Analytic Geometry and Calculus I (5)
- General Education course Natural Sciences (3)<sup>1</sup>

#### **Total Semester Hours: 15**

#### Semester 2

#### CRITICAL: "C" or better in ENGL 1001

- CSC 1351 Computer Science II for Majors (4)
- MATH 1552 Analytic Geometry and Calculus II (4)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Humanities (English/Honors 2000-level) (3)
- General Education course Natural Sciences Lab (1)<sup>1</sup>

#### **Total Semester Hours: 15**

#### Semester 3

# **CRITICAL:** "C" or better in MATH 1550/MATH 1551

- CSC 2259 Discrete Structures (3)<sup>4</sup>
- CSC 3102 Advanced Data Structures and Algorithm Analysis (3)
- MATH 2090 Elementary Differential Equations and Linear Algebra (4)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Natural Sciences Lab

   (1)<sup>1</sup>
- General Education course Humanities (3)

#### **Total Semester Hours: 17**

#### Semester 4

#### **CRITICAL:** "C" or better in CSC 2259

- CSC 2262 Numerical Methods (3)
- CSC 3380 Object Oriented Design (3)
- CSC 3501 Computer Organization and Design (3)<sup>4</sup>
- ENGL 2000 English Composition (3)

• General Education course - Humanities (Communication Studies course) (3)

Total Semester Hours: 15

#### Semester 5

#### CRITICAL: MATH 2090

- CSC 4330 Software Systems Development (3)
- IE 3302 Engineering Statistics (3) <sup>4</sup>
- Approved Technical Elective (3)<sup>3</sup>
- CSC (2000-level or above) Elective (3)
- Approved Area Elective (3)<sup>2</sup>

#### Total Semester Hours: 15

#### Semester 6

- CSC 4103 Operating Systems (3)
- CSC (2000-level or above) Elective (3)
- Approved Area Elective (3)<sup>2</sup>
- General Education course Social Sciences (3)
- Approved Technical Elective (3)<sup>3</sup>

#### Total Semester Hours: 15

#### Semester 7

- CSC 3200 Ethics in Computing (1)
- CSC 4101 Programming Languages (3)
- CSC (4000-level) Elective (3)
- Approved Area Electives (6)<sup>2</sup>

#### **Total Semester Hours: 13**

#### Semester 8

- CSC (3000-level or above) Elective (3)
- CSC (4000-level or above) Elective (3)
- Approved Area Elective (3)<sup>2</sup>
- General Education course Arts (3)
- General Education course Social Sciences (2000-Level) (3)

#### Total Semester Hours: 15

### 120 Total Sem. Hrs.

Computer science students are cautioned to verify course descriptions in the catalog noting where duplication of course credits may be prohibited. Additionally, computer science students will not receive degree credit for the following courses: CSC 1240; ELRC 4006; EXST 2201; ISDS 2000, ISDS 2001, ISDS 2010, ISDS 2011, ISDS 3070, ISDS 3075; PSYC 4111; and SOCL 2201.

<sup>1</sup> - For General Education Natural Science,

(3 cr. hrs.) [Life Science] BIOL 1001 or BIOL 1201

(3 cr. hrs.) [Physical Science] Select from PHYS 1201 or PHYS 2001, or CHEM 1001 or CHEM 1201 or CHEM 1421 or ASTR 1101 or GEOL 1001 or GEOL 1003.

(3 cr. hrs.) A second course science must be selected to complete the sequence in either the BIOL science or physical science.

(2 cr. hrs.) Science lab credits must be wholly associated with the science sequence selected.

<sup>2</sup> - APPROVED AREA ELECTIVES: See Computer Science advisor. An approved second discipline concentration consists of 15 semester hours of electives in one area outside of the Department of Computer Science. All courses must be taken from a single department except when a university minor is obtained. Courses in the second area are to form a coherent sequence; where possible students should take courses required of a major in that department. Ordinarily, there should be at least two courses numbered 3000 or above. Courses chosen from Information Systems and Decision Sciences must be numbered ISDS 3100 or above. The approval form must be submitted no later than the sophomore year with the consent of the departmental advisor and the dean's office.

<sup>3</sup> - APPROVED TECHNICAL ELECTIVES: Three hours of elective credits must be selected from Group A and three hours of elective credits selected from Group A or Group B.

**GROUP A**: 2000-level and above only chosen from CSC, BE, CHE, CE, CM, EE, ENGR, EVEG, IE, ME, PETE, EMS, ENVS, OCS, MATH, ECON, FIN, ASTR, BIOL, CHEM, GEOG, GEOL, PHYS, ISDS 3100, ISDS 3105, ISDS 3107, ISDS 3120, ISDS 4+++. **GROUP B**: ART 2050, ART 2055, ART 2551, ART 4020, ART 4050, ART 4055, ART 4550, ART 4059, ART 4560, ARTH 4466, ARTH 4468, ARTH 4480, ARTH 4482, ARTH 4484, MC 4015, MC 4260, MUS 2745, MUS 4745, MUS 4746, ENGL 2009, ENGL 2231, ENGL 4000, ENGL 4009, ENGL 7109.

<sup>4</sup> - Credit will not be applied to the degree for courses with overlapping content. For clarification, contact the division's academic adviser. Students who have completed the prerequisites may substitute:

EE 4740 for CSC 2259 but not both

EE 3755 for CSC 3501 but not both

MATH 3355 or EE 3150 or EXST 4050 for IE 3302.

### Data Science and Analytics

### **CRITICAL REQUIREMENTS**

SEMESTER 1: MATH 1021 SEMESTER 2: "C" or better in ENGL 1001 SEMESTER 3: "C" or better in MATH 1550/MATH 1551 SEMESTER 4: "C" or better in CSC 2259 SEMESTER 5: MATH 2090

A grade of "C" or better is required in all CSC prerequisite courses; CSC 3200, CSC 4101, CSC 4103 and CSC 4330; MATH 1550 and MATH 1552; BIOL 1001 or BIOL 1201 and all science prerequisite courses including laboratory courses.

#### Semester 1

#### CRITICAL: MATH 1021

- CSC 1350 Computer Science I for Majors (4)
- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- General Education Course Natural Sciences (3)<sup>1</sup>

#### **Total Semester Hours: 15**

#### Semester 2

**CRITICAL:** "C" or better in ENGL 1001

• CSC 1351 Computer Science II for Majors (4)

- MATH 1552 Analytic Geometry and Calculus II (4)
- General Education Course Natural Sciences (3)<sup>1</sup>
- General Education Course Natural Sciences Lab (1)<sup>1</sup>
- General Education Course Humanities (ENGL/HNRS 2000-Level) (3)

#### Total Semester Hours: 15

#### Semester 3

**CRITICAL:** "C" or better in MATH 1550/MATH 1551

- CSC 2259 Discrete Structures (3)
- CSC 3102 Advanced Data Structures and Algorithm Analysis (3)
- MATH 2090 Elementary Differential Equations and Linear Algebra (4)
- General Education Course Natural Sciences (3)<sup>1</sup>
- General Education Course Natural Sciences Lab (1)<sup>1</sup>
- General Education Course Humanities (3)

#### Total Semester Hours: 17

#### Semester 4

#### CRITICAL: "C" or better in CSC 2259

- CSC 2262 Numerical Methods (3)
- CSC 3501 Computer Organization and Design (3)
- CSC 4103 Operating Systems (3)
- ENGL 2000 English Composition (3)
- General Education Course Humanities (Communication Studies Course) (3)

#### **Total Semester Hours: 15**

#### Semester 5

#### CRITICAL: MATH 2090

- CSC 4402 Database Systems (3)
- CSC 2730 Data Science and Analytics (3)
- IE 3302 Engineering Statistics (3) <sup>5</sup>

- Approved DSA Area Elective (3)<sup>2</sup>
- Approved Technical Elective (3)<sup>4</sup>

#### Semester 6

- CSC 4740 Big Data Technologies (3)
- CSC 3380 Object Oriented Design (3)
- Approved DSA Area Elective (3)<sup>2</sup>
- General Education Course Social Sciences (3)
- Approved Technical Elective (3)<sup>4</sup>

#### Total Semester Hours: 15

#### Semester 7

- CSC 3200 Ethics in Computing (1)
- CSC 4330 Software Systems Development (3)
- CSC 4101 Programming Languages (3)
- Approved DSA Area Elective (3)<sup>2</sup>
- General Education Course Social Sciences (2000-Level) (3)

#### **Total Semester Hours: 13**

#### Semester 8

- CSC (2000-Level or above) Elective (3)<sup>3</sup>
- CSC (3000-Level or above) Elective (3)<sup>3</sup>
- Approved Elective (6)
- General Education Course Arts (3)

#### Total Semester Hours: 15

#### 120 Total Sem. Hrs.

Computer science students are cautioned to verify course descriptions in the catalog noting where duplication of course credits may be prohibited. Additionally, computer science students will not receive degree credit for the following courses: CSC 1240; ELRC 4006; EXST 2201; ISDS 2000, ISDS 2001, ISDS 2010, ISDS 2011, ISDS 3070, ISDS 3075; PSYC 4111; and SOCL 2201.

<sup>1</sup> - For General Education Natural Science,

(3 cr. hrs.) [Life Science] BIOL 1001 or BIOL 1201

(3 cr. hrs.) [Physical Science] Select from PHYS 1201 or PHYS 2001, or CHEM 1001 or CHEM 1201 or CHEM 1421 or ASTR 1101 or GEOL 1001 or GEOL 1003.

(3 cr. hrs.) A second course science must be selected to complete the sequence in either the BIOL science or physical science.

(2 cr. hrs.) Science lab credits must be wholly associated with the science sequence selected.

<sup>2</sup> – APPROVED DSA AREA ELECTIVES (6 hours required): CSC 4501, CSC 4512, CSC 4610; EE 3150; IE 3302; ISDS 3105, ISDS 4118, ISDS 4141; MATH 3355, MATH 4024, MATH 4025; other electives subject to approval. The remaining 3 hours of approved DSA electives must be a CSC 4000+ level course, but is not restricted to the area electives list.

<sup>3</sup> –The selection of the CSC 2000-level or above elective (3 cr. hrs.) and 3000-level or above elective (3 cr. hrs.) is not restrictive to topics related to Data Analytics.

<sup>4</sup> – APPROVED TECHNICAL ELECTIVES: Three hours of elective credits must be selected from **Group A** and three hours of elective credits selected from Group A or Group B.

**GROUP A**: 2000-level and above only chosen from CSC, BE, CHE, CE, CM, EE, ENGR, EVEG, IE, ME, PETE, EMS, ENVS, OCS, MATH, ECON, FIN, ASTR, BIOL, CHEM, GEOG, GEOL, PHYS, ISDS 3100, ISDS 3105, ISDS 3120.

**GROUP B**: ART 2050, ART 2055, ART 2551, ART 4020, ART 4050, ART 4055, ART 4550, ART 4059, ART 4560, ARTH 4466, ARTH 4468, ARTH 4480, ARTH 4482, ARTH 4484, MC 4015, MC 4260, MUS 2745, MUS 4745, MUS 4746, ENGL 2009, ENGL 2231, ENGL 4000, ENGL 4009, ENGL 7109.

<sup>5</sup> - Credit will not be applied to the degree for courses with overlapping content. For clarification, contact the division's academic adviser. Students who have completed the prerequisites may substitute:

EE 4740 for CSC 2259 but not both

EE 3755 for CSC 3501 but not both

MATH 3355 or EE 3150 or EXST 4050 for IE 3302.

### Software Engineering

### **CRITICAL REQUIREMENTS**

SEMESTER 1: MATH 1021

SEMESTER 2: "C" or better in ENGL 1001; SEMESTER 3: "C" or better in MATH 1550/MATH 1551 SEMESTER 4: "C" or better in CSC 2259 SEMESTER 5: MATH 2090

A grade of "C" or better is required in all CSC prerequisite courses; CSC 3200, CSC 4101, CSC 4103 and CSC 4330; MATH 1550 and MATH 1552; BIOL 1001 or BIOL 1201 and all science prerequisite courses including laboratory courses.

### Semester 1

#### CRITICAL: MATH 1021

- CSC 1350 Computer Science I for Majors (4)
- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- General Education course Natural Sciences (3)<sup>1</sup>

#### Total Semester Hours: 15

#### Semester 2

**CRITICAL:** "C" or better in ENGL 1001

- CSC 1351 Computer Science II for Majors (4)
- MATH 1552 Analytic Geometry and Calculus II (4)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Natural Sciences Lab (1)<sup>1</sup>
- General Education course Humanities (English/Honors 2000-level) (3)

#### Total Semester Hours: 15

#### Semester 3

**CRITICAL:** "C" or better in MATH 1550/MATH 1551

- CSC 2259 Discrete Structures (3)
- CSC 3102 Advanced Data Structures and Algorithm Analysis (3)

- MATH 2090 Elementary Differential Equations and Linear Algebra (4)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Natural Sciences Lab (1)<sup>1</sup>
- General Education course Humanities (3)

#### Total Semester Hours: 17

#### Semester 4

#### CRITICAL: "C" or better in CSC 2259

- CSC 2262 Numerical Methods (3)
- CSC 3380 Object Oriented Design (3)
- CSC 3501 Computer Organization and Design (3)
- ENGL 2000 English Composition (3)
- General Education course Humanities (Communication Studies course) (3)

#### **Total Semester Hours: 15**

#### Semester 5

#### CRITICAL: MATH 2090

- CSC 4101 Programming Languages (3)
- CSC 3200 Ethics in Computing (1)
- CSC 4330 Software Systems Development (3)
- IE 3302 Engineering Statistics (3) <sup>5</sup>
- Approved Technical Elective (3)<sup>4</sup>

#### Total Semester Hours: 13

#### Semester 6

- CSC 4103 Operating Systems (3)
- CSC 4351 Compiler Construction (3)
- CSC 2000-level or above (3)<sup>3</sup>
- General Education course Social Sciences (3)
- Approved Technical Elective (3)<sup>4</sup>

**Total Semester Hours: 15** 

#### Semester 7

- CSC 4402 Database Systems (3)
- CSC SEG (2000-level or above) Elective (3)
- General Education course Social Sciences (2000-level) (3)

#### Semester 8

- CSC (3000-level or above) Elective (3)<sup>3</sup>
- CSC SEG (4000-level or above) Elective (3)
- Approved SEG Area Electives (3)<sup>2</sup>
- General Education course Arts (3)
- Approved Elective (3)

#### **Total Semester Hours: 15**

#### 120 Total Sem. Hrs.

Computer science students are cautioned to verify course descriptions in the catalog noting where duplication of course credits may be prohibited. Additionally, computer science students will not receive degree credit for the following courses: CSC 1240; ELRC 4006; EXST 2201; ISDS 2000, ISDS 2001, ISDS 2010, ISDS 2011, ISDS 3070, ISDS 3075; PSYC 4111; and SOCL 2201.

<sup>1</sup> - For General Education Natural Science,

BIOL 1001 or BIOL 1201

(3 cr. hrs.) [Physical Science]

Select from PHYS 1201 or PHYS 2001, or CHEM 1001 or CHEM 1201 or CHEM 1421 or ASTR 1101 or GEOL 1001 or GEOL 1003

(3 cr. hrs.) A second course science must be selected to complete the sequence in either the BIOL science or physical science.

#### **Electrical Engineering, B.S.E.E.**

**Electrical Engineering** 

#### **CRITICAL REQUIREMENTS**

- Approved SEG Area Elective (3)<sup>2</sup>
- Approved Elective (3)

(2 cr. hrs.) Science lab credits must be wholly associated with the science sequence selected.

<sup>2</sup> – APPROVED SEG AREA ELECTIVES (6 hours required): CSC 4243, CSC 4263, CSC 4356, CSC 4357, CSC 4370, CSC 4444, CSC 4501, CSC 4585, CSC 4610, CSC 4740, CSC 4890; EE 4859; IE 4461; ISDS 4111, ISDS 4112, ISDS 4113, ISDS 4120, ISDS 4125, ISDS 4141; other electives subject to approval.

 $^{3}$  – The selection of the CSC 2000 - level or above elective (3 cr. hrs.) and 3000-level or above (3 cr. hrs.) is not restrictive to topics related to software engineering.

<sup>4</sup> – APPROVED TECHNICAL ELECTIVES: Three hours of elective credits must be selected from **Group A** and three hours of elective credits selected from Group A or Group B.

**GROUP A**: 2000-level and above only chosen from CSC, BE, CHE, CE, CM, EE, ENGR, EVEG, IE, ME, PETE, EMS, ENVS, OCS, MATH, ECON, FIN, ASTR, BIOL, CHEM, GEOG, GEOL, PHYS, ISDS 3100, ISDS 3105, ISDS 3120.

**GROUP B**: ART 2050, ART 2055, ART 2551, ART 4020, ART 4050, ART 4055, ART 4550, ART 4059, ART 4560, ARTH 4466, ARTH 4468, ARTH 4480, ARTH 4482, ARTH 4484, MC 4015, MC 4260, MUS 2745, MUS 4745, MUS 4746, ENGL 2009, ENGL 2231, ENGL 4000, ENGL 4009, ENGL 7109.

<sup>5</sup>– Credit will not be applied to the degree for courses with overlapping content. For clarification, contact the division's academic adviser. Students who have completed the prerequisites may substitute:

EE 4740 for CSC 2259 but not both

EE 3755 for CSC 3501 but not both

MATH 3355 or EE 3150 or EXST 4050 for IE 3302.

SEMESTER 1: MATH 1022 or MATH 1023. SEMESTER 2: "C" or better in MATH 1550. SEMESTER 3: "C" or better in MATH 1552. SEMESTER 4: "C" or better in EE 2120. SEMESTER 5: "C" or better in EE 2130.

A prerequisite to any electrical engineering course may be met only by obtaining a "C" or better in each course cited as a prerequisite. This rule does not apply to EE 2950 or EE 3950. Elective courses are available so that expertise may be obtained in one or more of the following three areas: **Electronics** • theory, design, and fabrication of solid-state devices and design of electronic circuits and systems. **Energy** • energy conversion, power system design and analysis, and control of power systems. **Systems and Signal Processing** • automatic control, networks, signal processing, and communication.

Additional information concerning these areas and guidelines for selecting electives are available in the division office.

### Semester 1

#### CRITICAL: MATH 1022 or MATH 1023

- EE 1810 Introduction to Engineering: Electrical and Computer Engineering (2)
- CHEM 1201 General Chemistry I (3)
- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- General Education course -Arts/Humanities/Social Sciences (3)

### Total Semester Hours: 16

### Semester 2

CRITICAL: "C" or better in MATH 1550

- EE 2741 Digital Logic I (3)
- CSC 1253 Computer Science I with C++ (3)
- MATH 1552 Analytic Geometry and Calculus II (4)
- PHYS 2110 Particle Mechanics (3)
- PHYS 2108 Introductory Physics Laboratory (1)
- General Education course Life Sciences (3)

### Total Semester Hours: 17

### Semester 3

#### **CRITICAL:** "C" or better in MATH 1552

- EE 2120 Circuits I (3)
- EE 2742 Digital Logic II (2)

- MATH 2070 Mathematical Methods in Engineering (4)
- PHYS 2113 Fields: Gravity, Electricity, and Magnetism (3)
- General Education Course -Arts/Humanities/Social Sciences (3)

### Total Semester Hours: 15

### Semester 4

#### **CRITICAL:** "C" or better in EE 2120

- EE 2130 Circuits II (3)
- EE 2230 Electronics I (3)
- EE 2231 Electronics Laboratory I (2)
- EE 2810 Tools in Electrical and Computer Engineering (2)
- MATH 2057 Multidimensional Calculus (3)
- ENGL 2000 English Composition (3)

### **Total Semester Hours: 16**

### Semester 5

#### **CRITICAL:** "C" or better in EE 2130.

- EE 3610 Signals and Systems (3)
- EE 3150 Probability for Electrical and Computer Engineering (3)
- Approved Breadth Electives (9)<sup>1</sup>

### Total Semester Hours: 15

### Semester 6

- PHIL 2018 Professional Ethics (3) or
- PHIL 2020 Ethics (3)
- EE 3320 Electrical and Magnetic Fields (3)
- Approved Breadth Electives (9)<sup>1</sup>
- General Education course Social Sciences (2000-level) (3)

**Total Semester Hours: 18** 

#### Semester 7

- EE 4810 Senior Design I (3)
- Approved Technical Elective (3)
- EE Design Electives (6)
- General Education course -Arts/Humanities/Social Sciences (3)

### Semester 8

- EE 4820 Senior Design II (3)
- Approved Technical Electives (6)
- EE Design Elective (3)
- General Education course -Arts/Humanities/Social Sciences (3)

### **Total Semester Hours: 15**

### 127 Total Sem. Hrs.

<sup>1</sup> – Approved Breadth Elective: Students must choose at least 18 hours of breadth electives. At least nine hours must be from courses marked with an asterisk: EE 3160\*, EE 3220\*, EE 3232, EE 3410\*, EE 3530\*, EE 3710, EE 3752\*, EE 3755.

#### **Computer Science Minor**

An undergraduate *minor in computer science* is available. Required courses are a two-course 6 credit hour introductory programming sequence, CSC 1253 and CSC 1254 or CSC 1350 and CSC 1351, CSC 2259 or EE 4740, CSC 3102, CSC 3501 or EE 3755, and three hours of computer science electives at the 3000 level and above; and CSC 4101 or CSC 4103 (total of 21 hours).

#### **Electrical and Computer Engineering Minor**

Any student not majoring in electrical or computer engineering may obtain a *minor in electrical and computer engineering* by completing each of these courses with a grade of "C" or better: EE 2120, EE 2130, EE 2230, EE 2740, EE 3610, EE 3752, and six additional hours of electrical engineering coursework *excluding* EE 2950, EE 3060, EE 3061, EE 3070 and EE 3950.

### **Department of Mechanical & Industrial Engineering**

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# **Bachelor of Science Degree in Mechanical Engineering**

Mechanical engineering emerged as a new field of engineering during the Industrial Revolution when many labor-saving inventions were designed and built in England between 1750 and 1850. The role of the mechanical engineer has expanded dramatically in recent years and nearly 10,000 graduates are now needed yearly.

All large industries employ mechanical engineers. Among those who regularly hire graduates from LSU are automotive, industrial machinery, oceanographic, power, chemical, textile, petroleum, computer, metal manufacturing, electronic, paper and wood product, and aerospace corporations.

In these industries, mechanical engineers perform a large variety of functions; therefore, the education of a mechanical engineer is necessarily broad. Mechanical engineers use the basic sciences (such as chemistry and physics), mathematics, computer programming, oral and written communication skills, and humanities and social sciences. Almost invariably, mechanical engineers rely heavily on a firm understanding of engineering mechanics and thermal sciences to analyze the conversion, transmission and application of energy in its many forms and meet a wide variety of needs.

Mechanical engineers use this knowledge in research by attempting to solve new problems, in development by altering a system to fit a new need, and in design to describe in detail a machine, system, or approach to a problem. Testing, manufacturing, operation and maintenance, marketing and sales, and administration also require large numbers of mechanical engineers. Mechanical engineering, a technical professional field, offers challenge and opportunity for those prepared for hard work, both in school and during a lifetime of service.

The Department of Mechanical Engineering is committed to continuing its three-fold mission of:

- Producing graduate and post-graduate engineers who meet the needs of industry, government, academia, and can evolve leaders in the profession.
- Advancing the state of knowledge and technology through innovative fundamental and applied research.
- Serving the community and the profession through programs of education, technology transfer, and consulting.

The mechanical engineering curriculum is accredited by the Engineering Accreditation Commission of ABET, www.abet.org. To qualify for graduation, mechanical engineering students must demonstrate:

- a. an ability to apply knowledge of mathematics, science, and engineering;
- b. an ability to design and conduct experiments, as well as to analyze and interpret data;
- c. an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, societal, political, ethical, health and safety, manufacturability, and sustainability;
- d. an ability to function on multidisciplinary teams;
- e. an ability to identify, formulate, and solve engineering problems;
- f. an understanding of professional and ethical responsibility;
- g. an ability to communicate effectively;
- h. the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context;
- i. a recognition of the need for, and an ability to engage in lifelong learning;
- j. a knowledge of contemporary issues;
- k. an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice;
- 1. an ability to apply knowledge of materials science and engineering; and
- m. an ability to execute a significant design that incorporates realistic constraints as a member of a team.

# **Bachelor of Science Degree in Industrial Engineering**

Industrial engineering involves the synthesis and applications of scientific principles of design, installation, and improvement of integrated systems of people, materials, information, and equipment to provide the most efficient and effective operating and work environment. It combines principles of human behavior with concepts of engineering procedure or analysis.

Industrial engineers engage in ergonomics and human factors engineering, safety engineering, work systems design, methods development and improvement, lean systems analysis, information systems design, industrial automation and robotics, systems integration, manufacturing processes design, facilities and plant layout/design, production planning and control, material handling and supply chain systems, operation research and logistics, computer modeling and simulation, quality assurance, statistical analysis and control, and reliability engineering.

The industrial engineer combines the abilities of an engineer and a manager. These include an aptitude for mathematics, statistics, and economics, as well as for the basic engineering sciences; an interest in working with people and systems that produce goods or services; and the ability to analyze, synthesize, and integrate technical knowledge in practical ways.

The program objectives, within the first few years after graduation, for graduates from the BSIE program at LSU are:

- Create value for organizations by developing and implementing effective solutions that balance intellectual, ethical, and societal considerations in design and improvement of operation and management systems so as to safely and efficiently produce and deliver the organization's products and services. In particular, graduates will provide this value in industries of economic importance to Louisiana and the Gulf Coast region, including construction; process industries; energy; information technology; traditional manufacturing; transportation and distribution; and healthcare.
- Function effectively in their organizations in settings that are diverse, global, and multi-disciplinary; lead diverse teams and working collaboratively; advance to leadership roles within their organizations, and be entrepreneurial within their companies or in creating and leading new companies.
- Lead changes in technology and our global society, by engaging in lifelong learning such as conferences, professional development courses, certifications and licensing, and advanced graduate studies.
- Communicate effectively to diverse audiences with different organizational roles, backgrounds, cultures, education, and interests.
- Be responsible, informed, ethical, and active citizens in their organizations, professions and community, through participation in and leadership of professional and community organizations and activities.

*Global Knowledge Requirement:* Today's engineers work on global projects in culturally diverse environments. To help prepare for this environment, students in industrial engineering must meet a global knowledge requirement. This can be accomplished in one of two ways:

- 1. Through participation in a study abroad program of six or more weeks in length, during which course credit is earned.
- 2. By taking a general education course that meets the global knowledge requirement (the course also counts towards the general education requirement). Currently approved courses are kept on a list available in the College of Engineering office. For a course to be included on this list, it must include instruction and guidance on at least two of the following:
  - a. Systematically compare the ideas, values, images, cultural artifacts, economic structures, technological developments, or attitudes of people from different modern societies.
  - b. Identify the historical context of ideas and cultural practices of global cultures and their dynamic relations to current societal contexts.
  - c. Explain how a culture changes in response to internal and external pressures.

The industrial engineering curriculum is accredited by the Engineering Accreditation Commission of ABET, www.abet.org. To qualify for graduation, industrial engineering students must demonstrate:

- an ability to apply knowledge of mathematics, science, and engineering;
- an ability to design and conduct experiments, as well as to analyze and interpret data;
- an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, societal, political, ethical, health and safety, manufacturability, and sustainability;
- an ability to function on multidisciplinary teams;
- an ability to identify, formulate, and solve engineering problems;
- an understanding of professional and ethical responsibility;
- an ability to communicate effectively;

- the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context;
- a recognition of the need for, and an ability to engage in lifelong learning;
- a knowledge of the role of industrial engineering in contemporary issues;
- an ability to use the techniques, skills, and modern industrial engineering tools necessary for engineering practice

### Accelerated Master of Science in Mechanical Engineering

Mechanical Engineering encourages talented undergraduates to take advantage of LSU's Accelerated MS program where it is possible to earn both BSME and MSME degrees in five years.

# 3/2 Joint Bachelor of Science in Industrial Engineering(BSIE)/Master of Business Administration (MBA) Program

The 3/2 program provides highly capable Industrial Engineering students an option to complete both a BSIE degree and MBA degree in five years. Normally, this would take six or more years to complete.

To be considered for the program, students must take the GMAT or GRE during their junior year and apply for admission to the MBA program at the end of the junior year. As part of the application process, an interview is required with the MBA coordinator and/or admissions committee. While there is a minimum requirement of 3.0 overall GPA and 600 GMAT/314 GRE to apply, special emphasis is given to assessing the student's maturity and likelihood of success in the 3/2 program, and students with above minimum scores may not be admitted.

If admitted, students pay MBA premium tuition for their final two years. In addition, students must earn a 3.0 or higher on all coursework applied to the MBA program.

The MBA and BSIE degrees would normally be awarded concurrently at the end of the fifth year. Note that you must complete the BSIE degree before or concurrent with the MBA in order to complete the MBA.

Accelerated completion of the two degrees is accomplished by:

- Students in BSIE accelerate the undergraduate program through advanced placement credit and summer/intersession/independent study work so that most requirements for their BSIE program are met by end of junior year.
- Up to nine credit hours of MBA 7000-level coursework is also applied towards the Technical Elective requirement in the BSIE undergraduate curriculum. These courses must be taken while co-enrolled in the MBA.
- Up to nine credit hours of senior level IE coursework eligible for graduate credit is also applied toward the MBA elective requirements. These courses must be taken while co-enrolled in the MBA.
- Students should conduct an internship during the summer following the senior (fourth) year, which will count towards three credit hours of MBA elective requirements as well as IE Technical Elective A.

#### **Industrial Engineering, B.S.I.E.**

### Industrial Engineering

#### **CRITICAL REQUIREMENTS**

SEMESTER 1: MATH 1022 or MATH 1023

SEMESTER 2: "C" or better in MATH 1550

SEMESTER 3: CHEM 1201, "C" or better in MATH 1552, "C" or better in PHYS 2110

SEMESTER 4: MATH 2090, "C" or better in PHYS 2112

SEMESTER 5: "C" or better in IE 3302

**Industrial Engineering Electives** • *Choose from the list maintained in the department.* 

Students may optionally take three hours of advanced ROTC coursework in place of one IE technical elective.

### Semester 1

#### CRITICAL: MATH 1022/MATH 1023

- CMST 1061 Fundamentals of Communication (3) or
- CMST 2060 Public Speaking (3)
- CHEM 1201 General Chemistry I (3)
- ENGL 1001 English Composition (3)
- IE 1002 Industrial Engineering Fundamentals (3)
- MATH 1550 Analytic Geometry and Calculus I (5)

#### Total Semester Hours: 17

### Semester 2

CRITICAL: "C" or better in MATH 1550

- CM 1020 Engineering Graphics for Mechanical Engineering (2)
- CHEM 1202 General Chemistry (3)
- MATH 1552 Analytic Geometry and Calculus II (4)

- PHYS 2110 Particle Mechanics (3)
- PHYS 2108 Introductory Physics Laboratory (1)
- IE 2400 Methods and Systems Engineering (3)

#### **Total Semester Hours: 16**

#### Semester 3

**CRITICAL:** CHEM 1201, "C" or better in MATH 1552, "C" or better in PHYS 2110

- ECON 2030 Economic Principles (3)
- MATH 2090 Elementary Differential Equations and Linear Algebra (4)
- PHYS 2112 Fluids, Thermodynamics, Waves, and Modern Physics (3)
- BIOL 1001 General Biology (3) or
- BIOL 1201 Biology for Science Majors I (3)
- EE 2950 Comprehensive Electrical Engineering (3)

### Total Semester Hours: 16

### Semester 4

**CRITICAL:** MATH 2090, "C" or better in PHYS 2112

- CE 2450 Statics (3)
- IE 3302 Engineering Statistics (3)
- ME 2733 Materials of Engineering (3)
- IE 2060 Introduction to the Use of Computers (3)
- IE 3201 Principles of Engineering Economy (3)

#### **Total Semester Hours: 15**

### Semester 5

#### **CRITICAL:** "C" or better in IE 3302.

- CE 3400 Mechanics of Materials (3)
- IE 3520 Supply Chain Logistics I (3)
- IE 4362 Advanced Engineering Statistics (3)
- ENGL 2000 English Composition (3)
- ME 3633 Manufacturing Processes & Methods (3)

### Total Semester Hours: 15

### Semester 6

- IE 4425 Information Systems Engineering (3)
- IE 4453 Quality Control & Six Sigma (3)
- IE 4520 Supply Chain Logistics II (3)
- IE 4461 Human Factors Engineering (3)
- IE 4113 Project Management (3) or
- ISDS 4113 Management of Information Systems Projects (3)

### Total Semester Hours: 15

### Semester 7

- IE 4530 Lean Manufacturing Systems (3)
- IE 4597 Industrial Engineering Capstone Design I (2)
- IE 4516 Plant and Systems Design (3)
- General Education course Social Sciences (3)<sup>1</sup>
- IE Electives (6)

### Total Semester Hours: 17

### Semester 8

- IE 4598 Industrial Engineering Capstone Design II (2)
- General Education courses Arts(3)/Humanities
   (6) (9)<sup>1</sup>
- IE Elective (3)

### Total Semester Hours: 14

### 125 Total Sem. Hrs.

1 - IE students must select one GEN ED COURSE that fulfills the Global Knowledge requirement. List of courses is available in the College of Engineering office.

### Industrial Engineering, B.S.I.E. (Joint 3/2 MBA Program)

### Joint 3/2 - BSIE/MBA Program

### Freshman Year

- CHEM 1201 General Chemistry I (3)
- CHEM 1202 General Chemistry (3)
- CM 1020 Engineering Graphics for Mechanical Engineering (2)
- IE 1002 Industrial Engineering Fundamentals (3)
- IE 2400 Methods and Systems Engineering (3)
- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- MATH 1552 Analytic Geometry and Calculus II (4)
- PHYS 2110 Particle Mechanics (3)
- PHYS 2108 Introductory Physics Laboratory (1)
- CMST 1061 Fundamentals of Communication (3) or
- CMST 2060 Public Speaking (3)

### Total Hours: 33

# Freshman Summer and Intersessions

- PHYS 2112 Fluids, Thermodynamics, Waves, and Modern Physics (3)
- General Education arts, humanities, social sciences course (6)

### Total Hours: 9

### Sophomore Year

- BIOL 1001 General Biology (3) or
- BIOL 1201 Biology for Science Majors I (3)
- IE 3201 Principles of Engineering Economy (3)
- CE 2450 Statics (3)
- ECON 2030 Economic Principles (3)
- EE 2950 Comprehensive Electrical Engineering (3)
- IE 2060 Introduction to the Use of Computers (3)
- IE 3302 Engineering Statistics (3)
- MATH 2090 Elementary Differential Equations and Linear Algebra (4)
- ME 2733 Materials of Engineering (3)

• ME 3633 Manufacturing Processes & Methods (3)

### Total Hours: 31

# Sophomore Summer and Intersessions

- General Education arts, humanities, social sciences course (6)
- IE Tech Elective A (3)

### Total Hours: 9

### Junior Year

#### (take GMAT, apply to MBA)

- CE 3400 Mechanics of Materials (3)
- IE 3520 Supply Chain Logistics I (3)
- IE 4362 Advanced Engineering Statistics (3)
- IE 4453 Quality Control & Six Sigma (3)
- IE 4461 Human Factors Engineering (3)
- IE 4516 Plant and Systems Design (3)
- IE 4113 Project Management (3) or
- ISDS 4113 Management of Information Systems Projects (3)
- IE 4530 Lean Manufacturing Systems (3) (also counts as MBA elective)
- IE 4425 Information Systems Engineering (3) (also counts as MBA elective)
- IE 4520 Supply Chain Logistics II (3) (also counts as MBA elective)
- ENGL 2000 English Composition (3)

### Total Hours: 33

### Fourth Year - Fall

- BADM 7010 Emerging Business Issues and Practices in a Global Economy (1)
- BADM 7020 Managerial Statistics (3)
- BADM 7030 Understanding Financial Information (3) (also counts as IE Tech Elective B)

- BADM 7100 Marketing Administration (3)
- IE 4597 Industrial Engineering Capstone Design I (2)

### Total Hours: 12

### Fourth Year - Spring

- BADM 7010 Emerging Business Issues and Practices in a Global Economy (1)
- BADM 7120 Operations Management (3)
- BADM 7060 Elements of Cost Management (3)
- BADM 7090 Financial Management (3) (also counts as IE Tech Elective B)
- IE 4598 Industrial Engineering Capstone Design II (2)

### Total Hours: 12

Award Bachelor of Science in Industrial Engineering

### Fourth Year - Summer

(after graduation with BSIE)

 BADM 7000 Internship in Business Administration (3)

### Total Hours: 3

### Fifth Year - Fall

- BADM 7010 Emerging Business Issues and Practices in a Global Economy (1)
- BADM 7200 Economic Environment of the Firm (3)
- BADM 7050 Information Systems (3)
- BADM 7070 Understanding Behavior in Organizations (3)
- MBA Elective (2)

### Total Hours: 12

### Fifth Year - Spring

- BADM 7010 Emerging Business Issues and Practices in a Global Economy (1)
- BADM 7190 Managing Sources of Competitive Advantage (3)
- BADM 7140 Legal Environment of Business (3)

### Total Hours: 7

### Award Masters of Business Administration

### Mechanical Engineering, B.S.M.E.

### Mechanical Engineering

### **CRITICAL REQUIREMENTS**

SEMESTER 1: MATH 1022 or MATH 1023 SEMESTER 2: "C" or better in MATH 1550 SEMESTER 3: "C" or better in CHEM 1202 SEMESTER 4: "C" or better in PHYS 2110 SEMESTER 5: ME 2334

A grade of "C" or better is required in CHEM 1202, MATH 1552, and PHYS 2110 (or equivalent courses) before a student may enroll in ME 2334.

A grade of "C" or better is required in MATH 2070/MATH 2090 (or equivalent course) before a student may enroll in ME 3834.

### Semester 1

#### CRITICAL: MATH 1022 and MATH 1023

- CHEM 1201 General Chemistry I (3)
- CM 1020 Engineering Graphics for Mechanical Engineering (2)
- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- General Education course Arts (3)

#### Total Semester Hours: 16

### Semester 2

#### **CRITICAL:** "C" or better in MATH 1550

- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2) or
- PHYS 2108 Introductory Physics Laboratory (1)
- MATH 1552 Analytic Geometry and Calculus II (4)
- PHYS 2110 Particle Mechanics (3)
- General Education course Life Science (3)

### Total Semester Hours: 14-15

### Semester 3

#### CRITICAL: "C" or better in CHEM 1202

- CE 2450 Statics (3)
- MATH 2057 Multidimensional Calculus (3)
- ME 2212 Introduction to Mechanical Engineering Design (2)
- ME 2334 Thermodynamics (4)
- ME 2733 Materials of Engineering (3)
- PHYS 2113 Fields: Gravity, Electricity, and Magnetism (3)

### Total Semester Hours: 18

### Semester 4

#### **CRITICAL:** "C" or better in PHYS 2110

- CE 3400 Mechanics of Materials (3)
- EE 2950 Comprehensive Electrical Engineering (3)
- ME 3133 Dynamics (3)
- ME 2543 Simulation Methods for Mechanical Engineers (3)
- ME 3701 Materials of Engineering Laboratory (1)
- MATH 2070 Mathematical Methods in Engineering (4)

### **Total Semester Hours: 17**

### Semester 5

#### CRITICAL: ME 2334

- EE 3950 Electronics (2)
- ME 3633 Manufacturing Processes & Methods (3)
- ME 3143 System Dynamics and Modeling (3)
- ME 3834 Fluid Mechanics (4)
- ME 4133 Machine Design I: Kinematics of Machinery (3)
- ENGL 2000 English Composition (3)

#### **Total Semester Hours: 18**

### Semester 6

- ME 3603 Instrumentation and Measurement (3)
- ME 3752 Material Selection for Mechanical Engineers (2)
- ME 4244 Machine Design II: Strength Considerations and Component Design (4)
- ME 4433 Heat Transfer (3)
- ME 4611 Thermal System Laboratory (1)
- ECON 2030 Economic Principles (3)

#### **Total Semester Hours: 16**

### Semester 7

- ME 4183 Theory and Design of Mechanical Control Systems (3)
- ME 4201 Mechanical Engineering Design Laboratory (1)
- ME 4243 Mechanical Engineering Capstone Design I (3)
- ME 4621 Thermal Science Laboratory (1)
- General Education course Social Sciences (Choose from INTL 2000 or HNRS 2020) (3)
- Approved Technical Elective (3)

### **Total Semester Hours: 14**

### Semester 8

- ME 4202 Mechanical Engineering Capstone Design II (2)
- Approved Technical Elective (3)
- General Education course Humanities (3)
- General Education Course Humanities (CMST 1061, CMST 2060, CMST 2063, or any foreign language) (3)
- General Education Course Humanities (PHIL 2018, PHIL 2020, or PHIL 2050) (3)

### Total Semester Hours: 14

### 127-128 Total Sem. Hrs.

#### **Aerospace Engineering Minor**

To earn a *minor in aerospace engineering*, a student must complete ME 3834 or equivalent, CE 3400, three aerospace core courses, and one aerospace related course chosen from an approved list of aerospace technical electives. A grade of "C" or better in each course is required.

#### **E-commerce Engineering Minor**

To earn an *E-commerce Engineering* minor, a student must complete 18 credit hours of coursework. These must include IE 2060 or CSC 1253 or CSC 1350 or ISDS 3107; IE 4425 or CSC 4402 or ISDS 3110; IE 4427; and three courses from an elective list maintained by the Mechanical & Industrial Engineering Department. A grade of "C" or better in each course is required.

#### **International Automotive Engineering Minor**

To earn a *minor in international automotive engineering*, a student must complete ME 2334 or equivalent, ME 3133, and four additional courses from an approved list of technical electives of which at least three must be automotive core courses and one may be a related course. At least two of the courses must be taken while studying at Politecnico di Torino in Torino, Italy. A grade of "C" or better in each course is required.

Only mechanical engineering students are expected to complete this minor with the stated 19-22 hours. Students majoring in other disciplines may require more credit hours than stated due to prerequisites.

#### **Materials Science and Engineering Minor**

To earn a *minor in materials science and engineering*, a student must complete ME 2733, ME 3701, ME 4723, ME 4743, CE 3400 or equivalent, and two additional courses chosen from an approved list of technical electives. A grade of "C" or better in each course is required.

#### **Mechanical Engineering Minor**

To earn a *minor in mechanical engineering*, a student must complete at least 18 semester hours of credit in mechanical engineering with a grade of "C" or better in each course. The 18 hours must include ME 2334 or ME 3333, and ME 2733, ME 3133, and at least six hours must be at the 4000 level.

#### **Nuclear Power Engineering Minor**

To earn a *minor in nuclear power engineering*, a student must complete ME 3834 or equivalent, ME 4433, three nuclear power core courses, and one nuclear power related course chosen from an approved list of nuclear power technical electives. A grade of "C" or better in each course is required.

Only mechanical engineering majors are expected to complete this minor with the stated 18-19 credit hours. Students majoring in other disciplines may require more credit hours than the stated ones because of the prerequisites.

### **Craft & Hawkins Department of Petroleum Engineering**

OFFICE3207 Patrick F. Taylor HallTELEPHONE225-578-5215FAX888-965-9518WEBSITEwww.pete.lsu.edu

Although the petroleum engineering curriculum is designed primarily for careers in the petroleum industry, it is suitable for careers in related areas such as ground water hydrology, geothermal energy, solution mining, and underground storage or disposal of fluids. Professional courses in drilling and production, well design, reservoir engineering, petrophysics, well logging, and the phase behavior of hydrocarbons systems follow basic course work in mathematics, chemistry, physics, geology, and the engineering sciences. Additionally, the faculty gives specific attention to the economic evaluation of drilling and production operations.

The department is active in obtaining summer employment in the petroleum industry for its students. The department also strongly recommends that its students join and participate, as student members, in the Society of Petroleum Engineers and take the *Fundamentals of Engineering* (FE) examination during their senior year as preparation for licensure as a professional engineer.

The nationally ranked Craft & Hawkins Department of Petroleum Engineering at LSU has alumni throughout the world working for major companies, small independent companies, government agencies, and as independent consultants.

The petroleum engineering program is accredited by the Engineering Accreditation Commission of ABET, www.abet.org.

The program educational objectives of the BS program in Petroleum Engineering at LSU are to produce graduates, who within 2-5 years after graduation and for the remainder of their careers are able to:

- Perform as engineering professionals in the oil, gas, and related industries, including academia and government, and excel in leadership, research, operational and technical roles;
- Identify opportunities, solve complex engineering problems, and make decisions and plans in the presence of uncertainty, utilizing appropriate engineering & design principles and emerging technologies;
- Effectively convey information, including technical concepts, risks, and recommendations, to and from peers, employers and employees, and the public;
- Demonstrate a high standard of professional ethics and competency throughout their careers.

The program educational outcomes require that graduates must have:

- an ability to apply knowledge of mathematics, science, and engineering;
- an ability to design and conduct experiments, as well as to analyze and interpret data;
- an ability to design a system, component, or process to meet desired needs;
- an ability to function on multi-disciplinary teams. The disciplines judged relevant to petroleum engineers are:
  - o petroleum sub-disciplines including drilling, production, reservoir, and formation evaluation;
  - geosciences including geology and geophysics;
  - $\circ$  other engineering disciplines, especially civil, chemical, and mechanical.
- an ability to identify, formulate, and solve engineering problems;
- an understanding of professional and ethical responsibility;
- an ability to communicate effectively;
- the broad education necessary to understand the impact of engineering solutions in a global societal content;
- a recognition of the need for, and an ability to engage in, life-long learning;
- a knowledge of contemporary issues pertaining to energy;
- an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

## **Undergraduate Admission Requirements**

Admission to the Craft & Hawkins Department of Petroleum Engineering requires that a student be admissible to the College of Engineering. In addition to the College of Engineering requirements, students must meet the following GPA requirements at the time of application for admission:

• A minimum cumulative 2.8 GPA on all course work that applies to the petroleum engineering undergraduate curriculum.

Transferring students admitted to LSU may apply to the Craft & Hawkins Department of Petroleum Engineering when they apply to the College of Engineering. Students who are denied admission to the department may reapply for admission in a subsequent semester.

An alternative for students who do not meet the GPA requirement but display an exceptional ability and desire to become a petroleum engineer is available. A committee including the department's undergraduate advisor, the department's chair, and the associate dean of undergraduate studies for the College of Engineering will meet and review appeals prior to the start of each semester. Admittance will depend on available space as well as criteria such as grades in freshman and sophomore petroleum engineering courses, relevant work experience and/or activity in student petroleum engineering organizations.

#### Petroleum Engineering, B.S.P.E.

### **Petroleum Engineering**

### **CRITICAL REQUIREMENTS**

SEMESTER 1: MATH 1022 or MATH 1023 SEMESTER 2: "C" or better in MATH 1550; GEOL 1001 SEMESTER 3: "C" or better in PHYS 2110 SEMESTER 4: "C" or better in PETE 2031 and "C" or better in CE 2450 SEMESTER 5: CE 2200

MATH 1550, MATH 1552, PHYS 2110, PHYS 2112, PHYS 2113, PETE 2031, and CE 2450 each require a grade of "C" or better before a student may register for any 3000 level petroleum engineering course.

Registration for 3000 and 4000 level petroleum engineering courses is only available to students admitted to the department.

### Semester 1

#### CRITICAL: MATH 1022 or MATH 1023

- CHEM 1201 General Chemistry I (3)
- ENGL 1001 English Composition (3)
- GEOL 1001 General Geology: Physical (3)
- GEOL 1601 Physical Geology Laboratory (1)
- PETE 1010 Introduction to Petroleum Engineering (2)
- MATH 1550 Analytic Geometry and Calculus I (5)

### Total Semester Hours: 17

### Semester 2

**CRITICAL:** "C" or better in MATH 1550; GEOL 1001

- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- MATH 1552 Analytic Geometry and Calculus II (4)
- PHYS 2110 Particle Mechanics (3)
- General Education course Life Science (3)

### Total Semester Hours: 15

### Semester 3

#### CRITICAL: "C" or better in PHYS 2110

- PETE 2060 Computational Methods in Petroleum Engineering (2)
- MATH 2065 Elementary Differential Equations (3)
- CE 2450 Statics (3)
- PETE 2031 Reservoir Rock Properties (3)
- PHYS 2112 Fluids, Thermodynamics, Waves, and Modern Physics (3)
- General Education course Arts (3)

#### **Total Semester Hours: 17**

### Semester 4

**CRITICAL:** "C" or better in PETE 2031 and "C" or better in CE 2450

- ECON 2030 Economic Principles (3)
- IE 3302 Engineering Statistics (3)
- PETE 2032 Reservoir Fluid Properties (3)
- PETE 2034 Rock and Fluid Properties Laboratory (1)
- PHYS 2113 Fields: Gravity, Electricity, and Magnetism (3)
- CE 2200 Fluid Mechanics (3)

### Total Semester Hours: 16

### Semester 5

#### CRITICAL: CE 2200

- PETE 3050 Reservoir Dynamics (3)
- ME 3333 Thermodynamics (3)
- PETE 3025 Economic Aspects of Petroleum Production (3)
- PETE 3036 Well Logging (3)
- PETE 3037 Petroleum Field Operations (1)
- Approved Geology Elective (3)<sup>1</sup>

### **Total Semester Hours: 16**

### Semester 6

- CE 3400 Mechanics of Materials (3)
- PETE 4060 Prevention of Oil and Gas Well Blowouts (1)
- PETE 3053 Petroleum Engineering Aspects of Subsurface Geology (3)
- PETE 3085 Well Performance and Production (3)
- ENGL 2000 English Composition (3)
- Approved Technical Elective (3)<sup>2</sup>

#### **Total Semester Hours: 16**

### Semester 7

- PETE 4051 Reserve Estimation and Reservoir Management (3)
- PETE 4045 Drilling Engineering (3)
- PETE 4058 Reservoir Mechanics Laboratory (1)
- PETE 4059 Drilling Fluids Laboratory (1)
- PETE 4998 Senior Project I (1)
- General Education course Humanities (3)
- PETE Design Course (3)<sup>3</sup>

#### **Total Semester Hours: 15**

#### Semester 8

- PETE 4999 Senior Project II (1)
- General Education course Humanities (6)
- PETE Design Courses (6)<sup>3</sup>
- General Education course Social Sciences (3)

#### Total Semester Hours: 16

### 128 Total Sem. Hrs.

<sup>1</sup> Any course from the Department of Geology
& Geophysics numbered 3000 or above except GEOL
4165.

<sup>2-</sup> Choose one of the following courses: GEOL 1003, EE 2950, CE 2460, ME 3133.

<sup>3-</sup> Students must take PETE 4046 and PETE 4056. In addition, students must take one of the following:

PETE 4083, PETE 4084, PETE 4085, PETE 4086, PETE 4087, PETE 4088, PETE 4089, PETE 4090, PETE 4241.

## **Roger Hadfield Ogden Honors College**

JONATHAN H. EARLE	F. GRANGER BABCOCK
Roger Hadfield Ogden Dean	Associate Dean
ANN S. HOLMES	MICHAEL V. BLANDINO
Associate Dean	Assistant Dean
DREW LAMONICA ARMS	MILES GARRETT
Director of Fellowship Advising	Director of Development
M. CINDY SEGHERS	JACQUELINE M. DEROBERTIS
Director of Career Development	Communications Coordinator
JEREMY K. JOINER	ANDREW P. ABAD
Coordinator for Advising & Enrollment Management	Recruiter
TAYLOR N. BAUDRY	MICHAEL P. LEGENDRE
Academic Advisor	Academic Advisor
TRENEICE W. BAKER	SHERRY L. GAUTHIER
Administrative Coordinator	Assistant to the Dean
OFFICE 101	French House
TELEPHONE	E 225-578-8831
FAX 225	5-578-8828

The Roger Hadfield Ogden Honors College is a highly selective four-year enrichment program for intellectually motivated undergraduate students. Honors students enter as freshmen and enroll in at least 32 hours of honors courses over their four-year career, culminating in the production of an Honors thesis or project in their major field of study. From small enrollment seminars in the freshman year to independent research activities in preparation for the senior honors thesis, the Honors College experience is characterized by close interaction between Honors students and outstanding faculty.

Honors students pursue a rigorous academic program which satisfies all requirements for graduation, including the requirements of their major academic department. Honors courses go beyond the basic requirements to provide the basis for outstanding achievement and appropriate recognition at graduation. In the first two years of study in the Honors College, breadth of academic experience is emphasized. Honors work involves the student in a variety of fields ranging from the humanities to the sciences and students may elect to take specialized seminars in a variety of disciplines. Honors students in the junior and senior years usually become more focused in their majors, developing increasingly independent research interests and culminating in the production of a senior thesis or project under the direction of a faculty member in the student's major department.

Participation in the Honors College supplements, but does not replace, work in a major field. Credits earned in Honors College courses may be used to satisfy general education requirements or specific degree requirements. Honors College and departmental advisors assist in assuring that Honors students meet all requirements of each student's major curriculum.

# **Admission Requirements**

### **Entering Freshmen**

Entering freshmen with the following minimum ACT or SAT scores and a 3.50 academic high school GPA are invited to apply for admission to the college.

- ACT requirements-30 composite and 30 English or 29 composite and 31 English.
- SAT requirements–1330 combined math and critical reading and 660 critical reading.

### **Continuing or Transfer Students**

Continuing students who have completed at least their first semester of college and have attained at least a 3.50 GPA are also invited to inquire about admission to the college.

### Readmission

Students who have been dropped from the college may apply for readmission if they meet the following requirements:

- they have attained a minimum cumulative GPA of 3.00; and
- they request registration in an honors course at the time of readmission.

# **Recognition Requirements**

Honors College students earn their graduation degrees from LSU through their senior colleges and earn Honors College recognition by meeting the following requirements (for all recognition awards, see curriculum for description of courses eligible for Honors credit):

*Good Standing:* All students must be in good standing to participate in the Honors College, register for honors courses, and be eligible for priority registration. Following the initial semester in the Honors College, an honors student is considered to be in good standing if he/she maintains a minimum cumulative GPA of 3.00 and successfully completes a minimum of two honors courses (five to six hours) per academic year in residence.

*College Honors:* Noted on both the diploma and the LSU transcript, College Honors is the culmination of the Honors College curriculum. Students who earn College Honors at graduation will receive special recognition at LSU commencement. To graduate with College Honors a student must meet all requirements as established by the student's own college including at least 32 hours of Honors classes as follows:

- a minimum of six hours of Honors coursework;
- 12 hours at 3000+ level, following upper division departmental honors programs, where they exist;
- senior thesis or project, following thesis guidelines;
- 3.5 GPA in cumulative, LSU, and Honors coursework.

*Upper Division Honors Distinction*: Students achieving this distinction will receive recognition at LSU commencement and on their transcripts. Students working toward upper division honors distinction are expected to indicate their intention, in person, to the Honors College upper division advisor who will furnish them with detailed requirements including the following:

- 12 hours of honors courses at the 3000-level or above, including three to six hours of thesis or project;
- Senior honors thesis or project following thesis guidelines;
- 3.50 GPA in both cumulative and LSU coursework, and for all honors courses used in the student's Upper Division program.

*Sophomore Honors Distinction:* Recognition includes a notation on the transcript and a certificate awarded after the end of the fourth semester. This designation will be subject to approval by the dean of the student's college upon recommendation of the dean of the Honors College. To achieve this distinction, students must complete the following by the end of their fourth regular semester in college:

- 20 hours of Honors or departmental honors courses, including a minimum of six hours of Honors courses;
- A 3.50 GPA in cumulative, LSU, and Honors coursework.

# Honors College Curriculum

Honors students are required to take at least five to six hours of honors courses per year to remain in good standing and at least 32 hours of honors courses (including thesis) to graduate with College Honors. The following types of courses qualify for credit as honors courses:

- Honors College courses: Designated with the HNRS prefix in the Schedule of Classes and administered by the Honors College. Example: HNRS 2013 The 20th Century (3).
- **Honors Departmental courses:** Designated with a departmental prefix and "Honors" in the course title as listed in the Schedule of Classes. Example: CHEM 1421 HONORS: General Chemistry (3).
- Honors Options: The honors option is available to students when separate upper division honors courses are not available. A student will work with a professor to produce a contract outlining the work to be done in addition to the regular work for a given course. The student will enroll in this course and will obtain honors credit by successfully completing the work outlined in the contract. Honors option regulations and forms are available through the Honors College. Honors credit is noted on the transcript with the letter "H." Example: ENGL 3020 British Literature I: The Middle Ages, Renaissance and 18th Century (3) (H).
- Honors Thesis/Project: An Honors Thesis of high quality is required for students to graduate with College Honors. Students in all disciplines are encouraged to link their Honors thesis with requirements in their own majors and must consult with their departments concerning its final format. The Honors Thesis should be completed in coursework totaling at least six hours. Students may enroll in thesis preparation courses in their own departments, or may use HNRS 4000 Thesis (3) with the agreement of their department.

# **Honors College Experience**

#### **Academic Experience**

The goal of the Honors College is to prepare academically motivated students for success following graduation and throughout their future careers. In addition to Honors coursework, Honors College students have the opportunity to engage in a wide range of academically related activities during their undergraduate careers. The Honors College advising staff works to guide students toward the following opportunities and students are encouraged to meet with our advisors on a regular basis.

- *Community Service Opportunities:* Freshmen can work together on a community service activity, learning to work together as a group and learning more about the LSU and Baton Rouge communities.
- *Study Abroad:* All Honors College students are encouraged to participate in foreign study programs, especially during their sophomore or junior years.
- *Research Assistantship/Internships:* In their junior year, Honors College students should identify areas of academic/career interest and begin to work on more specialized research under the supervision of a faculty member or on internships in fields appropriate to their career goals.
- *Postgraduate Fellowships/Scholarships:* In their senior year, Honors College students should identify and apply for prestigious fellowships and scholarships that pertain to their career interests.

### **Residential Experience**

The Laville Honors House is a residential college affiliated with the Honors College. The residence hall is available for all Honors College students (freshmen through seniors). The Laville Honors House provides a living environment that fosters academic excellence and close personal interaction between students and faculty. In addition to regular participation in activities by faculty members, advising staff offices and seminar rooms are also located in the Laville Honors House to enhance student academic performance.

### Honors Courses and Curricular Equivalents

In meeting the requirements for their degrees, Honors students may substitute a number of Honors courses (HNRS and departmental) for non-Honors courses required for their degree programs. A list of Honors courses follows.

### **College of Humanities & Social Sciences**

TROY BLA	
Interim Dean JASON HICKS ELSIE MICHIE	
Interim Associate Dean	Associate Dean
REBECCA CAIRE	TINA FOS
Assistant Dean	Assistant Dean
ANN WHITMER	ANGEL BARNES
Assistant Dean	Counselor
JENNIFER BRAUD	MARGARET CHERAMIE
Counselor	Counselor
BLAIRE CORLEY	TANYA DUPUY
Counselor	Counselor
MAYA GALATHE	AYESHA KADRI
Counselor	Counselor
119 Hodges Hall TELEPHONE 225-578-3141 FAX 225-578-6447 WEBSITE www.hss.lsu.edu	

### **Departments and Curricula**

Department of Aerospace Studies	Department of Communication Sciences & Disorders	Department of Communication Studies
Comparative Literature (Interdepartmental Program)	Economics (Intercollegiate Program)	Department of English
Department of Foreign Languages & Literatures	Department of French Studies	Department of Geography & Anthropology
Department of History	Interdisciplinary Studies (Interdepartmental Program)	International Studies (Interdepartmental Program)
Liberal Arts (Intercollegiate Program)	Linguistics (Interdepartmental Program)	Department of Military Science
Department of Philosophy & Religious Studies	Department of Political Science	Department of Psychology
Screen Arts (Interdepartmental Program)	Department of Sociology	3+3 Pre-Law Programs

The College of Humanities & Social Sciences' primary purpose is to afford the student a liberal education, which by its nature is broad rather than narrow, devoted to intellectual development and discipline rather than to the acquisition of technical skills. It should give the student some knowledge of the achievements of the human mind, with special reference to the western civilization of which both the ancient world and contemporary America are parts; the historical and cultural backgrounds essential to a true understanding of our world; and above all, orderly thinking processes and a scale of values by which the distinction can be made between permanent and trivial, substantial and pretentious, good and bad. To that end, some familiarity with historical and political studies, the sciences, and the arts is necessary.

As a human being and as a citizen, the student will find this education of lasting significance. As a member of a profession, each student will find desirable backgrounds for scholarship and teaching in all fields of knowledge and for law and medicine, which stress, increasingly, the value of broad intellectual training.

The curricula within the college require a number of courses which are deemed essential-individually and as a group-to the intellectual competence at which the liberal education aims; in addition to these, the student has electives which may be used to further general knowledge or to specialize in certain fields.

To accomplish its primary purpose, the college offers Bachelor of Arts, Bachelor of Science, and Bachelor of Interdisciplinary Studies degrees. By completing a major in the college, the student will obtain a much broader background than is generally possible under the standard curriculum. The advantages of broad training for everyday life are obvious. Moreover, the added breadth of knowledge will be helpful in case the student continues beyond the bachelor's degree level.

### **Degree Programs**

The following undergraduate degrees in the College of Humanities & Social Sciences are Bachelor of Arts degrees:		
Anthropology	Communication Disorders	Communication Studies
Economics	English	French
Geography	History	International Studies
Liberal Arts	Philosophy	Political Science
Screen Arts	Sociology	Spanish
The following undergraduate degrees in the College of Humanities & Social Sciences are Bachelor of Science degrees:		
Geography	Geography	
The College of Humanities & Social Sciences also offers a Pachalar of Interdisciplinary Studies degree		

The following undergraduate degrees in the College of Humanities & Social Sciences are Bachelor of Arts degrees:

The College of Humanities & Social Sciences also offers a Bachelor of Interdisciplinary Studies degree.

### **Admission Requirements**

Students will be admissible to the College of Humanities & Social Sciences if they have earned at least 24 semester hours. Students majoring in psychology, communication disorders, or any of the secondary education areas of concentration must have a GPA of at least 2.50 in all work taken within the university (all LSU campuses) and in all work taken overall to be formally admitted to their major.

Students majoring in any of the secondary education areas of concentration must have a passing score on the Praxis Core Academic Skills for Educators (PRAXIS CORE) or minimum ACT composite of 22 or minimum SAT composite of 1030 to declare their respective concentration.

Transfer students from other divisions of the university and other accredited colleges and universities must meet the eligibility requirements stated above. Students transferring from another institution must also meet university transfer admission requirements. Transfer credits acceptable for admission shall be valid for degree credit in the college only to the extent to which they represent courses acceptable in the curricula of the college.

### **General Education Requirements**

General education requirements of the university are included in the curricula of the various departments in the college. For specific information concerning these requirements, see the "General Education Requirements" section of this catalog.

## **Degree Requirements of the College**

#### **General Requirements**

In order to qualify for a bachelor's degree in this college, a candidate must satisfy these requirements:

- Meet departmental/program requirements for the major and all university requirements as detailed in the "General Education Requirements" section of this catalog, except that the general education humanities requirement cannot be fulfilled with a foreign language. (Students who break residence, either voluntarily or by compulsion, for at least two consecutive semesters may not elect a catalog earlier than the one in force at the time of their re-entry.)
- A minimum GPA of 2.00 on all work taken in the university (all LSU campuses) and on all work taken overall. A 2.50 the university (all LSU campuses) and cumulative grade point average is required for students graduating in any of the secondary education concentrations.
- A minimum GPA in the major field of 2.00 on all work taken in the university (all LSU campuses) and on all work taken overall.
- A minimum grade of "C" in all academic content (major) and education courses for students in secondary education concentrations (English, French, history, or Spanish).
- A minimum of 30 semester hours in courses numbered 3000 or above. A minimum of 45 hours in courses numbered 3000 or above for the interdisciplinary studies major (15 of which must be at the 4000 level).
- Degree credit will not be allowed for more than nine semester hours of 1000 level mathematics courses below 1550.
- A minimum of 15 semester hours in residence in the major field, including at least nine semester hours in courses numbered 3000 or above.
- A minimum of 30 semester hours in residence in the college. The last year of work (last 30 semester hours) will be taken in residence in this college on the LSU campus.
- *Foreign Language*–A minimum of 14-16 credits (four semesters) in a foreign language for the BA or BS degrees. Students should take a placement test and register at the appropriate level. Students who have a native fluency in a language other than English may satisfy the foreign language requirement in one of three ways: (a) by completing the prescribed number of hours in the curriculum for the BA or BS degree in a language *other than* English or their native language; (b) by taking a minimum of 12 hours in courses numbered 3000 or above in their native language; or (c) by taking nine semester hours of English and/or communication studies above the minimum

general education or major requirements. (Only three hours may be earned in ENGL 2001 or ENGL 2002 to meet this requirement. Professional and specialized courses in communication studies may not be counted toward this requirement.) Students who have a native fluency in a language other than English should consult credit restrictions in that language under the appropriate foreign language departmental entry in this section of the catalog.

- *Grade Point Average Maintenance*–A student who fails to earn a 2.00 semester average in any one semester, regardless of cumulative GPA, will be placed on college probation. To be removed from college probation, a student must earn a 2.00 or better semester GPA, correct course deficiencies, and make satisfactory progress in the degree program.
- *Scholastic Requirements*–Full-time students are expected to make reasonable and satisfactory progress in a degree program.

The college reserves the right to review at any time a student's suitability to continue in a degree program.

### **Enrollment in Two Degree Programs**

*Double Majors*–Students may pursue double majors in this college. By completing all residence and academic requirements for the two programs, a student may earn one bachelor's degree with two majors.

*Dual Degrees within the College of Humanities & Social Sciences*–Students may pursue dual degrees in this college. Both majors must be offered by departments/programs within the college. By completing residence and academic requirements, and earning 30 hours over the degree requirements, a student may earn two separate bachelor's degrees.

*Dual Enrollment in the College of Humanities & Social Sciences and a Second Academic College*–By completing residence and academic requirements for two degree programs and earning 30 hours more than the degree requiring the fewer number of hours, a student can earn two bachelor's degrees. The student must be accepted for admission to both colleges. In addition, the student must declare a home college where registration will be initiated and permanent files maintained. It is the student's responsibility, however, to maintain contact with the second college to ensure that satisfactory progress is being made toward that degree.

### **Requirements for a Second Bachelor's Degree**

To qualify for a second bachelor's degree in this college, students must meet the admission requirements of the college and the department/program. Once admitted, students must complete (with at least a 2.00 GPA) a minimum of 30 semester hours, including any degree requirements not previously met. The 30 hours must be completed in residence in the College of Humanities & Social Sciences.

### **Graduation with College Honors**

To graduate "with College Honors" in the College of Humanities & Social Sciences, a student must meet the following requirements:

- complete at least 32 hours of Honors classes with a minimum of six hours of HNRS coursework and 12 hours at 3000+ level, with a 3.5 GPA in cumulative, LSU, and Honors coursework;
- register in a curriculum offered in the College of Humanities & Social Sciences;
- complete a curriculum of courses approved by the department concerned and by the dean and the faculty of the Honors College. This curriculum should be developed using the general curricular principles of the college, the purposes of which are to afford students a liberal education and to include (besides the major field) historical and political studies, the life and physical sciences, the humanities, and the arts;
- demonstrate competence in a major field by doing independent research, writing a senior thesis, and taking an oral examination. The thesis counselor and one additional member of the student's committee must be from the student's major department;
- after the freshman year, maintain at least a 3.33 GPA ("A" = 4.00).

### **Pass-Fail Option**

Students in the College of Humanities & Social Sciences may register for courses on a pass-fail basis under the following conditions:

- Only *free elective* courses may be taken on a pass-fail basis. Required courses and restricted electives may not be taken on a pass-fail basis. A student may not take courses offered by the Honors College on a pass-fail basis.
- A student must have permission (by signature on a petition form) from the dean of this college, the instructor of the course, and the dean of the college in which the course is offered.
- Pass-fail registration must be completed before the final day for adding courses.
- Eligible students may take one course per semester on a pass-fail basis.

Courses offered by the College of Humanities & Social Sciences that are required in a student's curriculum will not be approved on a pass-fail basis.

### **Distance Learning Programs Credit**

A maximum of 30 semester hours of Distance Learning Programs (DLP) credit are acceptable toward meeting degree requirements. Students who wish to have DLP credits accepted by this college must make their registration in DLP courses a matter of record in the office of the dean of the college at the time of such registration.

Students registered in the college may enroll in a maximum of 19 semester hours of combined resident and DLP coursework during a regular semester. They may enroll in a maximum of 12 semester hours of combined resident and DLP coursework during a summer term. *Students may not be enrolled in DLP coursework within their last semester. All DLP coursework must be completed by the last weekday of final examinations in the semester prior to the one in which the student intends to graduate. Depending on the DLP course, a special time limit may be imposed by the dean's office.* 

### Electives

A student in the College of Humanities & Social Sciences may elect for degree credit any course offered by the following programs, departments, or schools:

Aerospace Studies	African & African American Studies	Art	Art History
Biological Sciences	Chemistry	Communication Sciences & Disorders	Communication Studies
Comparative Literature	Curriculum & Instruction	Disaster Science & Management	Economics
Educational Leadership, Research, & Counseling	English	Entomology	Environmental Studies
Experimental Statistics	Foreign Languages & Literatures	French Studies	Geography & Anthropology
Geology & Geophysics	History	Honors	International Studies
Linguistics	Mathematics	Military Science	Music
Oceanography & Coastal Sciences	Philosophy & Religious Studies	Physics & Astronomy	Political Science
Psychology	Screen Arts	Sociology	Theatre
Women's & Gender Studies			

Students may select elective courses in departments not listed above. Students must meet all prerequisites for these courses. Twenty-four semester hours of elective credit in such courses may be counted toward degree requirements from this college. A student may receive a maximum of 12 semester hours of degree credit in ROTC. No more than eight hours of kinesiology activity courses may count toward degree requirements from this college.

### **Placement Services**

Students in this college may use the services of the university's Olinde Career Center. These services include counseling, job-seeking skills workshops, job search handbooks, résumé service, career days, and on-campus recruiting and interviews.

### **Study Abroad**

Students in the College of Humanities & Social Sciences are encouraged to participate in the study abroad programs administered by the Office of Academic Programs Abroad and the International Student Exchange Program. Students who participate in these programs must receive departmental/program evaluations of the courses to be taken prior to going abroad. In addition, students must make an appointment with a counselor in the college to ensure that degree credit will be granted upon return to LSU.

### National Student Exchange

LSU cooperates with a number of other universities throughout the United States in an exchange program. Students may spend one year (usually the junior year) at another university at little or no more cost than they pay at LSU. Additional information can be obtained from the Office of Academic Programs Abroad.

### Preparation for the Study of Law

LSU students interested in attending LSU's Paul M. Hebert Law Center may take advantage of an exciting initiative called the 3+3 Pre-Law Program housed within the College of Humanities & Social Sciences. Please see the section of this chapter entitled "3+3 Pre-Law Programs" for additional details.

Because of the rich complexity of this discipline, students with very different academic backgrounds can undertake and excel in the study of law. *There is no single curriculum or course of study which is prerequisite to or guarantees success in law school.* Curricula in the College of Humanities & Social Sciences provide excellent preparation for students who intend to study law. The degree requirements of the college ensure the development of the following skills, which are essential components of pre-law training: (1) the ability to express oneself competently in writing; (2) the ability to understand the human institutions and values with which the law deals; and (3) the ability to think creatively. Students who intend to pursue a legal career are therefore encouraged to choose a curriculum in the College of Humanities & Social Sciences.

Any student considering law school as a future option should contact the University's Pre-Law Advisor, which is housed in the College of Humanities & Social Sciences. The Pre-Law Advisor may be contacted at prelaw@lsu.edu.

### **Minor Field Requirements (Optional)**

Although students are not required to pursue a minor field (except in the interdisciplinary studies major), they may choose to do so under the following guidelines:

- Earn a minimum of 15-18 semester hours in the minor field, of which at least six semester hours must be in courses taken on this campus at the 3000 and/or 4000 level; see individual departments in the "Departments and Curricula" section of this chapter for more specific requirements.
- Earn a minimum GPA *in the minor field* of 2.00 on all work taken in the university (all LSU campuses) *and* on all work taken overall.
- Courses used to satisfy minor requirements may not be taken on a pass/fail basis.

Minor fields may be selected from any major field currently offered by the college in which appropriate requirements for a minor have been established or any field of an interdisciplinary nature for which a minor has been approved by the Faculty Senate Courses and Curricula Committee and the Office of Academic Affairs.

Minors may also be taken in fields outside the college if:

- the total number of semester hours does not exceed 24 (total number of non-Humanities & Social Sciences electives that may be counted toward degree requirements);
- the work conforms to guidelines established by the department, program, school, and college concerned;
- the work meets the general minor field requirements of the College of Humanities & Social Sciences, as stated above.

### **Teacher Preparation Program for Grades 6-12**

The Departments of English, Foreign Languages & Literatures, French Studies, and History offer undergraduate degree programs with an area of concentration in secondary education (middle school and high school). Students in the program may receive a bachelor's degree in English, French, history, or Spanish and qualify for teacher certification. The curricula have been developed cooperatively with faculty in the College of Human Sciences and Education and include courses taught jointly by faculty in the College of Human Sciences and Education. Students completing these degree programs and meeting any additional requirements of the Louisiana State Department of Education will be eligible for certification in the state of Louisiana as teachers in grades six through 12.

The following requirements pertain to students enrolled in the secondary education concentration:

Admission Requirements:

- Minimum cumulative and LSU grade point average of 2.50;
- Passing scores on all parts of the Praxis Core Academic Skills for Educators (PRAXIS CORE) or minimum ACT composite score of 22 or minimum SAT composite score of 1030.

Retention Requirements:

• Minimum cumulative and LSU grade point average of 2.50 for entry into and continuation in upper (3000/4000) level education courses, including student teaching.

Degree Requirements:

- Satisfactory completion of an approved program of study as determined by all of the following: faculty of the college in which the major/concentration resides, the university, and the Louisiana Board of Elementary and Secondary Education;
- Minimum cumulative and LSU GPA of 2.50 on all work completed;
- Passing scores on all required parts of the Praxis II Series;

• Grade of "C" or higher in course work as specified by the Louisiana Board of Elementary and Secondary Education. A second option for students interested in teaching in the above areas at the middle/high school level is to pursue a traditional bachelor's degree in the content area and then complete a master's degree through the LSU College of Human Sciences and

Education. The master's degree program (Holmes Program) begins in June and requires 12 consecutive months of course work and classroom experience leading to both the master's degree and teaching certification. Information about the program and potential scholarship assistance is available through the College of Human Sciences and Education, Office of Student Services.

### **Honors Courses**

Besides courses offered through the Honors College, other honors courses are offered through various departments, including:

ANTH 4999	BIOL 1503	ENGL 2823	
ENGL 2824	ENGL 3000	ENGL 3821	ENGL 3822
ENGL 3824	ENGL 3825	ENGL 3925	ENGL 3927
ENGL 3929	GEOG 4999	HIST 1002	HIST 1004
HIST 2056	HIST 2058	PHIL 1001	PHIL 2034
PHIL 2036	PHIL 2050	PHIL 2053	POLI 1002
POLI 2052	POLI 3000	POLI 3809	POLI 3896
POLI 4998	POLI 4999	PSYC 2001	REL 1007
REL 2006	REL 2030	REL 2031	SOCL 2002
SOCL 3905	SPAN 2104	WGS 2501	

### **HSS Student Council/Clubs**

The college's Student Council is composed of student representatives from the college's departments and programs, as well as members at large. The purpose of the council is to enhance the academic environment in the college. In addition, many departments and programs sponsor clubs with areas of interest to majors.

### **Undergraduate Career Plan**

Students are encouraged to enrich their studies and prepare for their careers by using the Four Year Career Plan in addition to their academic course of study.

### **Department of Aerospace Studies**

OFFICE105 Military Science/Aerospace Studies Bldg.TELEPHONE225-578-4407FAX225-578-4537E-MAILDet310@maxwell.af.milWEBSITEwww.afrotc.lsu.edu

For information on this department's program, see the "Reserve Officers Training Corps" section of this catalog. For information on the department's course offerings, see the "\*\*COURSE SEARCH\*\*" chapter in this catalog.

#### **Aerospace Studies Minor**

To graduate with a *minor in aerospace studies*, students must complete at least 18 hours of coursework: 12 hours from ASST 3001, ASST 3002, ASST 4001, and ASST 4002; and six hours of the following electives: ENGL 2012, and either MATH 1021, MATH 1022, MATH 1023, or MATH 1550.

- Other elective courses acceptable for the minor in aerospace studies in lieu of ENGL 2012 include HIST 4055, HIST 4066, or HIST 4140.
- Students may earn up to an additional four hours beyond the minimum 18 hours by completing ASST 1001, ASST 1002, ASST 2001, or ASST 2002 for a maximum of 22 hours.
- Students must obtain approval from the professor of aerospace studies prior to substituting HIST for ENGL, or any other course substitutions.

### **Department of Communication Sciences & Disorders**

OFFICE	68 Hatcher Hall
TELEPHONE	225-578-2545
FAX	225-578-2528
WEBSITE	www.lsu.edu/comd
E-MAIL	jnorris@lsu.edu

The undergraduate curriculum is designed to provide majors with a liberal arts education and to prepare them for entry into graduate programs in communication disorders. In the master's program, students are provided with clinical experiences and academic course work necessary for national clinical certification in speech-language pathology. The doctoral program is geared toward the development of scholarship and research skills to prepare students for traditional academic positions, both in the basic sciences of speech, language, and hearing and in clinical aspects of communication disorders.

LSU Speech and Hearing Clinic • As part of its training program, which is accredited in speech-language pathology, the department maintains a clinic for the diagnosis and treatment of communication disorders including articulation, dysfluency, cleft palate, voice disorders, aphasia, cerebral palsy, children's language disorders, and hearing disorders. Clinical services are available to any individual, university student, or community member having speech, hearing, or language problems. Services are free to LSU students.

Graduate students concentrating in speech-language pathology obtain practicum experience in the university clinic and in community clinics with which the university training program is affiliated, such as the Baton Rouge Speech and Hearing Foundation, Baton Rouge General Medical Center, Ochsner Clinic, Our Lady of the Lake Regional Medical Center, Earl K. Long Medical Center, Veteran's Administration hospitals, public schools, and other sites.

Those requesting clinical services should contact the Speech and Hearing Clinic in Hatcher Hall (225-578-9054).

### Communication Disorders, B.A. Communication Disorders CRITICAL REQUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: First course in Foreign Language Sequence. SEMESTER 3: COMD 2050; Second course in Foreign Language Sequence; Admission to the College. SEMESTER 4: COMD 2081.

SEMESTER 5: COMD 4150, COMD 4250; ENGL 2000. Admission to a curriculum in the Department of Communication Sciences and Disorders requires that a student be admissible to the College of Humanities & Social Sciences and have a GPA of 2.50 or above on all work taken within the LSU System and on all work taken overall. Majors in Communication Disorders are required to take the following courses: BIOL 2160, EXST 2201, COMD 2050, COMD 2081, COMD 4150, COMD 4153, COMD 4190, COMD 4250, COMD 4380, COMD 4381, COMD 4382, and COMD 4383. Prospective students who have not attained a 2.50 average may petition the Department's Committee of Undergraduate Advisors for a waiver of the 2.50 requirement based on special circumstances.

Consult "Degree Requirements of the College" in this section of the catalog for specific instructions regarding electives and the general education life and physical sciences, literature, mathematics, and social sciences requirements.

#### Semester 1 CRITICAL: "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- First Course in Foreign Language Sequence (4)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Arts (3)
- MATH 1021 College Algebra (3)

### Total Semester Hours: 16

#### Semester 2

**CRITICAL:** First course in Foreign Language Sequence.

- General Education course Humanities (3)
- Second Course in Foreign Language Sequence (4)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Social Sciences (3)
- Approved Elective (0-2)

#### Total Semester Hours: 13-15 Semester 3

- **CRITICAL:** COMD 2050; Second course in Foreign Language Sequence; Admission to the College.
- BIOL 2160 Human Physiology (3)
- COMD 2050 Introduction to Language (3)

- Third Course in Foreign Language Sequence (4-3)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Humanities (3)

#### Total Semester Hours: 16-15 Semester 4

#### semester 4

#### CRITICAL: COMD 2081.

- COMD 2081 Introduction to Communication Disorders (3)
- ENGL 2000 English Composition (3)
- EXST 2201 Introduction to Statistical Analysis (4)
- General Education course Humanities (3)
- Fourth Course in Foreign Language Sequence (4-3)

### Total Semester Hours: 17-16

#### Semester 5

**CRITICAL:** COMD 4150, COMD 4250; ENGL 2000.

- COMD 4150 Phonetics (3)
- COMD 4250 Anatomy and Physiology of Speech and Hearing (3)
- COMD 4380 Speech and Language Development (4)
- Approved Elective (3)
- **Total Semester Hours: 13**

#### Semester 6

- COMD 4153 Acoustics of Speech and Hearing (4)
- COMD 4190 Introduction to Audiology (3)
- COMD 4381 Basic Articulation Disorders (3)
- COMD 4382 Basic Language Disorders of Children (3)
- Approved Elective (3)

#### Total Semester Hours: 16

#### Semester 7

- COMD 4383 Basic Fluency Disorders (3)
- Approved Electives (11)
- Total Semester Hours: 14

### Semester 8

• Approved Electives (15)

# Total Semester Hours: 15 120 Total Sem. Hrs.

<sup>1</sup> - If two course sequence is taken in the physical sciences, the additional three hour course must be taken from the life sciences, and vice versa.

#### **Communication Sciences and Disorders Minor**

A student must complete the following 15 hours to graduate with a minor in communication sciences and disorders:

- COMD 2050
- COMD 2081

Three COMD courses from the list below (9 hours):

- COMD 2051
- COMD 4150
- COMD 4153
- COMD 4190
- COMD 4250
- COMD 4380
- COMD 4381
- COMD 4382
- COMD 4382
   COMD 4383
- COMD 4503
   COMD 4590
- COMD 4590
   COMD 4681
- COMD 4751

### **Department of Communication Studies**

OFFICE	136 Coates Hall
TELEPHONE	225-578-4172
FAX	225-578-4828
WEBSITE	www.lsu.edu/cmst

Communication Studies explores how people sustain and change, experience, and make sense of the world through symbolic action. Students develop conceptual skills to analyze written, oral, and visual messages. Students gain practical experience in areas such as public speaking, group decision-making, performance, and film. Such skills are elemental to careers in business, government, law, social services, and the arts.

Students are encouraged to select a pathway or area of emphasis that addresses their personal interests and goals. The choices include Public Discourse, Art and Culture, Professional Communication, Communication in Human Relationships, and Visual and Mediated Communication. Recommended courses focus on power, performance art, personal relationships, organizational communication, and film. Internships are available.

Extracurricular activities include the Organization for Communication Studies, the Speech and Debate Team, and the HopKins Black Box Theatre.

#### Communication Studies, B.A. Communication Studies CRITICAL REOUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: CMST 1150; First course in Foreign Language Sequence.

SEMESTER 3: CMST 2060; Second course in Foreign Language Sequence; Admission to the College.

SEMESTER 4: CMST 2010/CMST 2064 or CMST 2040; General Education Analytical Reasoning.

SEMESTER 5: CMST 2010/CMST 2064 or CMST 2040 Majors in Communication Studies must complete a minimum of 36 semester hours of approved electives in the department. At least 12 of these hours must be numbered 3000 or above. Students should contact the undergraduate advisor to decide on a program of approved electives; see the CMST website for suggestions on topical foci. Twelve hours of core courses are required: CMST 1150; CMST 2060; CMST 2010 or CMST 2064; and CMST 2040. Consult "Degree Requirements of the College" for specific instructions regarding electives and foreign language requirements. Consult the "General Education" section of the catalog for the university's general education requirements.

The department requires that the two course sequence in natural science be accompanied by two hours of corresponding labs.

### Semester 1 CRITICAL: "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- CMST 1150 Introduction to Communication Studies (3)
- First Course in Foreign Language Sequence (4)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Natural Sciences Lab (0-1)<sup>1</sup>

### Total Semester Hours: 13-14 Semester 2

**CRITICAL:** CMST 1150; First course in Foreign Language Sequence.

- CMST 2060 Public Speaking (3)
- Second Course in Foreign Language Sequence (4)
- General Education course Analytical Reasoning (from Mathematics) (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Natural Sciences Lab (2-1)<sup>1</sup>

#### Total Semester Hours: 15-14

#### Semester 3

**CRITICAL:** CMST 2060; Second course in Foreign Language Sequence; Admission to the College.

- CMST 2010 Interpersonal Communication (3) or
- CMST 2064 Small Group Communication (3)
- Third Course in Foreign Language Sequence (4-3)
- General Education course Natural Sciences (3)<sup>1</sup>
- Approved Electives (4-6)

#### Total Semester Hours: 14-15 Semester 4

**CRITICAL:** CMST 2010/CMST 2064 or CMST 2040; General Education Analytical Reasoning.

- CMST 2040 Introduction to Performing Literature (3)
- ENGL 2000 English Composition (3)
- Fourth Course in Foreign Language Sequence (4-3)
- General Education course Analytical Reasoning (3)
- Approved Elective (3)

#### Total Semester Hours: 16-15 Semester 5

#### CRITICAL: CMST 2010/CMST 2064 or CMST 2040

- Approved CMST Electives (6)
- General Education course Humanities (3)
- General Education course Social Sciences (3)
- Approved Elective (3)

#### Total Semester Hours: 15 Semester 6

- Approved CMST Electives (6)
- General Education course Humanities (3)
- General Education course Social Sciences (2000-level) (3)
- Approved Electives (5)

#### Total Semester Hours: 17 Semester 7

- Approved CMST Electives (6)
- General Education course Arts (3)
- Approved Electives (6)

#### Total Semester Hours: 15 Semester 8

- Approved CMST Electives (6)
- General Education course Humanities (3)
- Approved Electives (6)

### Total Semester Hours: 15 120 Total Sem. Hrs.

<sup>1</sup> - For General Education Natural Sciences, both physical & life sciences must be taken: six hours in a physical/life sciences SEQUENCE and two hours lab credit associated

with the sequence chosen; three hours in an area (phys/life) not previously selected.

### **Communication Studies Minor**

A *minor in communication studies* requires CMST 1150 or CMST 1061 and at least 12 additional hours in departmental courses, of which at least six hours must be at the 3000 level or above.

## **Comparative Literature (Interdepartmental Program)**

OFFICE	403 Hodges Hall
TELEPHONE	225-578-6670
FAX	225-578-6628
WEBSITE	www.lsu.edu/complit
E-MAIL	complitlsu@lsu.edu

The program offers the PhD in comparative literature. Required courses include:

- History of Literary Criticism: From Antiquity to the Enlightenment-CPLT 7010
- Modern Literary Criticism and Theory–CPLT 7020
- Topics in Theory of Criticism–CPLT 7120
- Topics in Comparative Literature–CPLT 7130
- Topics in the Interdisciplinary Study of Literature–CPLT 7140

The program also offers a graduate *minor in comparative literature*, which requires 12 hours of CPLT courses and satisfaction of the language requirement.

### **Economics (Intercollegiate Program)**

The Bachelor of Arts in Economics is a 120-hour program offered to students in the College of Humanities & Social Sciences. A minor in economics is also available in the College of Humanities & Social Sciences. Students *majoring in economics* in the College of Humanities & Social Sciences are required to take ECON 2000, ECON 2010, ECON 2035, ECON 4710 and ECON 4720. Other economics courses must be chosen with the advice and approval of the College of Humanities & Social Sciences advisor in the Department of Economics.

The learning objectives for students include:

- Identify the role of supply and demand in a market economy.
- Identify the necessary conditions for market economies to function well.
- Discuss market system advantages and pricing.
- Understanding of the economic role of government policy and the Federal Reserve.
- Define and analyze economic problems using algebraic and statistical methods.
- Identify the benefits and costs of a global economy.

#### **Economics Minor**

To graduate with a *minor in economics*, students in the College of Humanities & Social Sciences must complete ECON 2030 (or ECON 2000 *and* ECON 2010), ECON 2035, ECON 4720, ECON 4710, and six additional hours in economics.

#### Economics, B.A.

### Economics, B.A. CRITICAL REQUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: ECON 2000; MATH 1021. SEMESTER 3: ECON 2010; Admission to the College. SEMESTER 4: ECON 2035; MATH 1431. SEMESTER 5: ECON 4710; ENGL 2000. Consult "Degree Requirements of the College" in this section of the catalog for specific instructions regarding electives and the general education life and physical sciences, literature, mathematics, and social sciences requirements.

If graduate study in economics is anticipated, it is strongly recommended that the calculus sequence, MATH 1550, MATH 1552, and MATH 2085, be taken.

### Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- ECON 2000 Principles of Microeconomics (3)
- MATH 1021 College Algebra (3)
- First Course in Foreign Language Sequence (4)
- General Education Course Natural Sciences Sequence (3)<sup>1</sup>
- Natural Sciences Lab (0-1)<sup>1</sup>

### Total Semester Hours: 16-17 Semester 2

CRITICAL: ECON 2000; MATH 1021.

- ECON 2010 Principles of Macroeconomics (3)
- Second Course in Foreign Language Sequence (4)
- General Education Course Natural Sciences (3)<sup>1</sup>
- Natural Sciences Lab (2-1)<sup>1</sup>
- Approved History Elective (3)

#### Total Semester Hours: 15-14

#### Semester 3

**CRITICAL:** ECON 2010; Admission to the College.

- ECON 2035 Money, Banking and Macroeconomic Activity (3)
- MATH 1431 Calculus with Business and Economic Applications (3)
- Approved History Elective (3)
- Third Course in Foreign Language Sequence (4-3)
- Approved Literature Course (3)
- Approved Elective (0-2)

#### Total Semester Hours: 16-17 Semester 4

#### CRITICAL: ECON 2035; MATH 1431.

- ENGL 2000 English Composition (3)
- EXST 2201 Introduction to Statistical Analysis (4)
- Fourth Course in Foreign Language Sequence (4-3)
- General Education Course Natural Sciences (3)<sup>1</sup>
- Approved Literature Course (3)

#### Total Semester Hours: 17-16

#### Semester 5

CRITICAL: ECON 4710; ENGL 2000.

- ECON 4710 Aggregate Economic Analysis (3)
- Approved Economics Elective (3)
- General Education course Arts (3)
- General Education course Social Sciences (3)
- Approved Elective (3)
- Total Semester Hours: 15

### Semester 6

- ECON 4720 Intermediate Microeconomic Theory (3)
- General Education course Humanities (other than English or foreign language) (3)
- Approved Social Sciences Course (not from HIST or ECON) (3)<sup>2</sup>
- Approved Electives (5)

### Total Semester Hours: 14

#### Semester 7

- General Education course Humanities (3)
- Approved Social Sciences course (not HIST or ECON) (3)<sup>2</sup>
- Approved Economics Elective (3)
- Approved Electives (4)

### Total Semester Hours: 13 Semester 8

- Approved Economics Electives (6)
- Approved Social Sciences course (not from HIST or ECON) (3)<sup>2</sup>
- Approved Electives (5)

### Total Semester Hours: 14 120 Total Sem. Hrs.

<sup>1</sup> - For General Education Natural Sciences, both physical and life sciences must be taken: six hours in a physical/life sciences sequence and two hours lab credit associated with the sequence chosen; three hours in an area (physical/life) not previously selected.

<sup>2</sup> - Select nine hours of Social Sciences electives in two fields from the following: AAAS\*\*\*\*, ANTH\*\*\*\*, COMD\*\*\*\*, GEOG\*\*\*\*, INTL\*\*\*\*, POLI\*\*\*\*, PSYC\*\*\*\* and SOCL\*\*\*\*. Not from: COMD 2050, GEOG 2050, or GEOG 2051.

### Area of Concentration Empirical Economic Analysis CRITICAL REQUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: ECON 2000; MATH 1021. SEMESTER 3: ECON 2010; Admission to the College. SEMESTER 4: ECON 2035; MATH 1431; EXST 2201. SEMESTER 5: ENGL 2000.

Consult "Degree Requirements of the College" in this section of the catalog for specific instructions regarding electives and the general education life and physical sciences, literature, mathematics, and social sciences requirements.

If graduate study in economics is anticipated, it is strongly recommended that the calculus sequence, MATH 1550, MATH 1552, and MATH 2085, be taken.

#### Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- ECON 2000 Principles of Microeconomics (3)
- MATH 1021 College Algebra (3)
- First Course in Foreign Language Sequence (4)
- General Education Course Natural Sciences Sequence (3)<sup>1</sup>
- Natural Sciences Lab (0-1)<sup>1</sup>

Total Semester Hours: 16-17

Semester 2

#### CRITICAL: ECON 2000; MATH 1021.

- ECON 2010 Principles of Macroeconomics (3)
- Second Course in Foreign Language Sequence (4)
- General Education Course Natural Sciences (3)<sup>1</sup>
- Natural Sciences Lab (2-1)<sup>1</sup>
- Approved History Elective (3)
- Total Semester Hours: 15-14

#### Semester 3

**CRITICAL:** ECON 2010; Admission to the College.

- ECON 2035 Money, Banking and Macroeconomic Activity (3)
- MATH 1431 Calculus with Business and Economic Applications (3)
- Approved History Elective (3)
- Third Course in Foreign Language Sequence (4-3)
- Approved Literature Course (3)
- Approved Elective (0-2)
- Total Semester Hours: 16-17

Semester 4

# **CRITICAL:** ECON 2035; MATH 1431; EXST 2201.

- ENGL 2000 English Composition (3)
- EXST 2201 Introduction to Statistical Analysis (4)
- Fourth Course in Foreign Language Sequence (4-3)
- General Education Course Natural Sciences (3)<sup>1</sup>
- Approved Literature Course (3)

Total Semester Hours: 17-16

#### Semester 5

#### CRITICAL: ENGL 2000.

- ECON 4630 Introduction to Econometrics (3)
- ECON 4710 Aggregate Economic Analysis (3)
- General Education course Social Sciences (3)
- Approved Electives (6)

#### Total Semester Hours: 15

Semester 6

- ECON 4631 Econometric Methods (3)
- General Education Course Arts (3)
- General Education Course Humanities (other than English or foreign language) (3)
- Approvedd Social Sciences Course (Not from HIST or ECON) (3)<sup>2</sup>
- Approved Elective (2)

#### Total Semester Hours: 14

#### Semester 7

- ECON 4720 Intermediate Microeconomic Theory (3)
- General Education course Humanities (3)
- Approved Social Sciences course (not from HIST or ECON) (3)<sup>2</sup>
- Approved Electives (4)
- Total Semester Hours: 13

#### Semester 8

- ECON 4633 Time Series Data Analysis (3)
- Approved Economics Elective (3)
- Approved Social Sciences Course (Not from HIST or ECON) (3)<sup>2</sup>
- Approved Electives (5)

#### Total Semester Hours: 14

#### 120 Total Sem. Hrs.

<sup>1</sup> - For General Education Natural Sciences, both physical and life sciences must be taken: six hours in a physical/life sciences sequence and two hours lab credit associated with the sequence chosen; three hours in an area (physical/life) not previously selected.

<sup>2</sup> - Select nine hours of Social Sciences electives in two fields from the following: AAAS\*\*\*\*, ANTH\*\*\*\*, COMD\*\*\*\*, GEOG\*\*\*\*, INTL\*\*\*\*, POLI\*\*\*\*, PSYC\*\*\*\* and SOCL\*\*\*\*. Not from: COMD 2050, GEOG 2050, or GEOG 2051.

# **Department of English**

OFFICE	260 Allen Hall
TELEPHONE	225-578-4086
FAX	225-578-4129
WEBSITE	www.english.lsu.edu

Undergraduates expecting to do graduate work should plan to take the Graduate Record Examination during the fall semester preceding their graduation. Graduate students should consult the section titled "Department of English" in "The Graduate School" section.

Consult "Degree Requirements of the College" in this section of the catalog for specific instructions regarding electives and foreign language requirements.

Consult "General Education" section of the catalog for the general education requirements.

Students who are not exempt will be required to pass one, two or three English composition courses. Placement level depends on ACT/SAT/AP scores or prior college credit. Required courses must be taken progressively. The completion of ENGL 2000 or its equivalent (ENGL 1005 for international students or approved transfer credit) is required of all students.

The satisfactory completion of ENGL 1001 or equivalent credit is prerequisite for all English courses numbered 2000 and higher.

#### **English Minor**

Students *minoring in English* must complete 18 semester hours of English courses in addition to freshman English. Minimum requirements are six hours of 2000 level English courses, excluding ENGL 2000; six hours from ENGL 3020, ENGL 3022, ENGL 3070, ENGL 3072, ENGL 3300, ENGL 3301, ENGL 3310, ENGL 3024; and six additional hours of English courses numbered 3000 or above.

# English, B.A. Areas of Concentration

Students majoring in English must complete, with at least a 2.00 average, a total of 36 semester hours in the subject, 15 of which must be in courses numbered 3000 or above. A special curriculum leading to the BA degree with departmental honors in English is also offered. Details are available from the departmental office.

Consult "*Degree Requirements of the College*" in this section of the catalog for specific instructions regarding electives and foreign language requirements. Consult "General Education" section of the catalog for the

general education requirements.

# Creative Writing CRITICAL REQUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: Course from INTRO TO LITERARY STUDY.

SEMESTER 3: Course from INTRO TO LITERARY

STUDY; Admission to the College.

SEMESTER 4: ENGL 2000; Course from INTRO WRITING.

SEMESTER 5: First Course in Foreign Language Sequence; Course from BRITISH/AMERICAN/POSTCOLONIAL LITERATURE SURVEY.

# Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- First Course in Foreign Language Sequence (4)
- General Education course Analytical Reasoning (from Mathematics) (3)
- General Education course Natural Sciences Sequence (3)<sup>1</sup>
- General Education course Humanities (other than English or Foreign Language) (3)

# Total Semester Hours: 16

# Semester 2

**CRITICAL:** Course from INTRO TO LITERARY STUDY.

- Intro to Literary Study (3)<sup>2</sup>
- Second Course in Foreign Language Sequence (4)
- General Education course Natural Sciences Sequence (3)<sup>1</sup>
- Approved Electives (3-5)

# Total Semester Hours: 13-15 Semester 3

**CRITICAL:** Course from INTRO TO LITERARY STUDY; Admission to the College.

- Intro to Literary Study (3)<sup>2</sup>
- Intro Writing  $(3)^3$

- Third Course in Foreign Language Sequence (4-3)
- General Education course Natural Sciences (3)<sup>1</sup>

# Total Semester Hours: 13-12 Semester 4

**CRITICAL:** ENGL 2000; Course from INTRO WRITING.

- ENGL 2000 English Composition (3)
- Fourth Course in Foreign Language Sequence (4-3)
- General Education course Arts (3)
- Approved Electives (6)

# Total Semester Hours: 16-15

# Semester 5

**CRITICAL:** First Course in Foreign Language Sequence; Course from BRITISH/AMERICAN/POSTCOLONIAL LITERATURE SURVEY.

- Intro Writing (3)<sup>3</sup>
- British/American/Postcolonial Literature Survey (3)<sup>4</sup>
- General Education course Analytical Reasoning (3)
- General Education course Social Sciences (3)
- Approved Elective (3)

# Total Semester Hours: 15 Semester 6

- British/American/Postcolonial Literature Survey (6)<sup>4</sup>
- General Education course Social Sciences (2000-level) (3)
- Approved Electives (8)

# Total Semester Hours: 17 Semester 7

- Area of Concentration Course (3)<sup>5</sup>
- Area of Concentration Course (3)<sup>6</sup>
- Approved Electives (9)

# Total Semester Hours: 15 Semester 8

- ENGL 4102 Capstone Seminar in Writing Poetry (3) or
- ENGL 4105 Capstone Seminar in Writing Fiction (3) or
- ENGL 4109 Capstone Seminar in Screenwriting (3) <sup>7</sup>
- Area of Concentration Course (3)<sup>6</sup>
- Upper Division English Elective (3)
- Approved Electives (6)

# Total Semester Hours: 15

# 120 Total Sem. Hrs.

<sup>1</sup> - If a two course sequence is taken in the physical sciences, the additional three hour course must be taken from the life sciences, and vice versa.

<sup>2</sup> - Choose six hours from the following: ENGL 2025, ENGL 2027, ENGL 2029, ENGL 2123/ENGL 2823, ENGL 2148, ENGL 2201, ENGL 2202, ENGL 2220, or ENGL 2270.

<sup>3</sup> - Choose six hours from the following: ENGL 2005, ENGL 2007, ENGL 2008, or ENGL 2009.

 <sup>4</sup> - Choose nine hours from the following: ENGL 3020, ENGL 3022, ENGL 3070, ENGL 3072, or ENGL 3080.
 <sup>5</sup> - Choose three hours from the following: ENGL 4137, ENGL 4147 or ENGL 4148.

<sup>6</sup> - Choose six hours from the following: ENGL 4000, ENGL 4001, ENGL 4005, ENGL 4006, ENGL 4007, ENGL 4008, or ENGL 4009.

<sup>7</sup> - ENGL 4102 prerequisite is ENGL 4007; ENGL 4105 prerequisite is ENGL 4005; ENGL 4109 prerequisite is ENGL 4009.

# Literature CRITICAL REQUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: Course from INTRO TO LITERARY STUDY.

SEMESTER 3: Course from INTRO TO LITERARY STUDY; Admission to the College.

SEMESTER 4: ENGL 2000; Course from

BRITISH/AMERICAN/POSTCOLONIAL LITERATURE SURVEY.

SEMESTER 5: First Course in Foreign Language

Sequence; Course from

BRITISH/AMERICAN/POSTCOLONIAL LITERATURE SURVEY.

# Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- First Course in Foreign Language Sequence (4)
- General Education course Analytical Reasoning (from Mathematics) (3)
- General Education course Natural Sciences Sequence (3)<sup>1</sup>
- General Education course Humanities (other than English or foreign language) (3)

# Total Semester Hours: 16

#### Semester 2

**CRITICAL:** Course from INTRO TO LITERARY STUDY.

- Intro to Literary Study (3)<sup>2</sup>
- Second Course in Foreign Language Sequence (4)
- General Education course Natural Sciences Sequence (3)<sup>1</sup>
- Approved Electives (3-5)

# Total Semester Hours: 13-15

# Semester 3

**CRITICAL:** Course from INTRO TO LITERARY STUDY; Admission to the College.

- Intro to Literary Study (3)<sup>2</sup>
- British/American/Postcolonial Literature Survey (3)<sup>3</sup>
- Third Course in Foreign Language Sequence (4-3)
- General Education course Natural Sciences (3)<sup>1</sup>

# Total Semester Hours: 13-12 Semester 4

**CRITICAL:** ENGL 2000; Course from BRITISH/AMERICAN/POSTCOLONIAL LITERATURE SURVEY.

- ENGL 2000 English Composition (3)
- Fourth Course in Foreign Language Sequence (4-3)
- General Education course Arts (3)
- Approved Electives (6)

# Total Semester Hours: 16-15

### Semester 5

**CRITICAL:** First Course in Foreign Language Sequence; Course from BRITISH/AMERICAN/POSTCOLONIAL LITERATURE SURVEY.

- ENGL 3024 Criticism (3) or
- ENGL 3084 Modern Criticism (3)
- British/American/Postcolonial Literature Survey (3)<sup>3</sup>
- General Education course Analytical Reasoning (3)
- General Education course Social Sciences (3)
- Approved Elective (3)

Total Semester Hours: 15

# Semester 6

- Area of Concentration Course (3)<sup>4</sup>
- British/American/Postcolonial Literature Survey (3)<sup>3</sup>
- General Education course Social Sciences (2000-level) (3)
- Approved Electives (8)

# Total Semester Hours: 17 Semester 7

- Area of Concentration Course (3)<sup>4</sup>
- Upper-Division English Elective (3)<sup>5</sup>
- Approved Electives (9)

# Total Semester Hours: 15 Semester 8

• ENGL 4104 Capstone Seminar in Literature (3)

- Upper Division English Electives (6)<sup>5</sup>
- Approved Electives (6)

### **Total Semester Hours: 15**

# 120 Total Sem. Hrs.

<sup>1</sup> - If two course sequence is taken in the physical sciences, the additional three hour course must be taken from the life sciences, and vice versa.

<sup>2</sup> - Choose six hours from the following: ENGL 2024/ENGL 2824, ENGL 2025, ENGL 2027, ENGL 2029, ENGL 2123/ENGL 2823, ENGL 2148, ENGL 2201, ENGL 2202, ENGL 2220, ENGL 2270, or ENGL 2300.
<sup>3</sup> - Choose nine hours from the following:ENGL 3020, ENGL 3022, ENGL 3070, ENGL 3072, or ENGL 3080.
<sup>4</sup> - Choose three hours from the following: ENGL 2593, ENGL 2673, ENGL 2674, ENGL 3080, ENGL 3593, ENGL 3674, ENGL 4593, ENGL 4674, or ENGL 4680 and choose three hours from the following: ENGL 4137, ENGL 4147, or ENGL 4148.

<sup>5</sup> - Nine hours of Upper-Division English electives, three of which must be at the 4000-level.

# Rhetoric, Writing, and Culture CRITICAL REQUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: Course from INTRO TO LITERARY STUDY.

SEMESTER 3: ENGL 2300; Admission to the College. SEMESTER 4: ENGL 2000; Course from LOWER-LEVEL RW&C CORE.

SEMESTER 5: First Course in Foreign Language

Sequence; Course from

BRITISH/AMERICAN/POSTCOLONIAL LITERATURE SURVEY.

# Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- First Course in Foreign Language Sequence (4)
- General Education course Analytical Reasoning (from Mathematics) (3)
- General Education course Natural Sciences Sequence (3)<sup>1</sup>
- General Education course Humanities (other than English or foreign language) (3)

# Total Semester Hours: 16

#### Semester 2

**CRITICAL:** Course from INTRO TO LITERARY STUDY.

- ENGL 2300 Interpreting Discourse (3)
- Intro to Literary Study (3)<sup>2</sup>
- Second Course in Foreign Language Sequence (4)
- General Education course Natural Sciences Sequence (3)<sup>1</sup>
- Approved Elective (0-2)

# Total Semester Hours: 13-15 Semester 3

CRITICAL: ENGL 2300; Admission to the College.

- Approved Elective (3)
- Lower Level Rhetoric, Writing & Culture Core (3)<sup>3</sup>
- Third Course in Foreign Language Sequence (4-3)
- General Education course Natural Sciences (3)<sup>1</sup>

# Total Semester Hours: 13-12

#### Semester 4

**CRITICAL:** ENGL 2000; Course from LOWER-LEVEL RW&C CORE.

- ENGL 2000 English Composition (3)
- Fourth Course in Foreign Language Sequence (4-3)
- General Education course Arts (3)
- Approved Electives (6)
- Total Semester Hours: 16-15

# Semester 5

**CRITICAL:** First Course in Foreign Language Sequence; Course from BRITISH/AMERICAN/POSTCOLONIAL LITERATURE SURVEY.

- Upper Level Rhetoric, Writing & Culture Core (3)<sup>4</sup>
- British/American/Postcolonial Literature Survey (3)<sup>3</sup>
- General Education course Analytical Reasoning (3)
- General Education course Social Sciences (3)
- Approved Elective (3)

# Total Semester Hours: 15 Semester 6

- Area of Concentration Course (3)<sup>5</sup>
- Rhetoric, Writing & Culture Core (3)<sup>4</sup>
- General Education course Social Sciences (2000-level) (3)
- Approved Electives (8)

# Total Semester Hours: 17 Semester 7

- Area of Concentration Course (3)<sup>5</sup>
- Upper Division English Elective (3)
- Approved Electives (9)

# Total Semester Hours: 15 Semester 8

- ENGL 4304 Capstone Seminar in Rhetoric, Writing, and Culture (3)
- Upper Division English Electives (6)
- Approved Electives (6)

# Total Semester Hours: 15

# 120 Total Sem. Hrs.

<sup>1</sup> - If two course sequence is taken in the physical sciences, the additional three hour course must be taken from the life sciences, and vice versa.

- <sup>2</sup> Choose three hours from the following: ENGL 2025, ENGL 2027, ENGL 2029, ENGL 2123/ENGL 2823, ENGL 2148, ENGL 2201, ENGL 2202, ENGL 2220, or ENGL 2270.
- <sup>3</sup> Choose six hours from the following:

Lower Level RW&C Core: three hours from ENGL 2012, ENGL 2024/ENGL 2824, ENGL 2423, or ENGL 2710; British/American/Postcolonial Literature Survey Courses: three hours from ENGL 3020, ENGL 3022, ENGL 3070, ENGL 3072, or ENGL 3080.

<sup>4</sup> - Choose six hours from the following: three hours from ENGL 3024, ENGL 3084, ENGL 3384; three hours from ENGL 3300, ENGL 3301, ENGL 3310, ENGL 3401, ENGL 3716, ENGL 3720, or ENGL 4710.

<sup>5</sup> - Choose six hours from the following: ENGL 4300, ENGL 4301, ENGL 4302, ENGL 4310, ENGL 4475, ENGL 4493, ENGL 4711/ENGL 4712, or ENGL 4713/ENGL 4715.

# Secondary Education - English CRITICAL REQUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001; 2.5 Cumulative and LSU GPA.

SEMESTER 2: "C" or better in course from ENGLISH MAJOR; 2.5 Cumulative and LSU GPA.

SEMESTER 3: "C" or better in course from ENGLISH MAJOR; 2.5 Cumulative and LSU GPA; Admission to the College.

SEMESTER 4: "C" or better in EDCI 2001; First Course in Foreign Language Sequence; ENGL 2000; 2.5 Cumulative and LSU GPA.

SEMESTER 5: "C" or better in EDCI 3001 and ENGL 3203; Second Course in Foreign Language sequence; 2.5 Cumulative and LSU GPA.

# Semester 1

**CRITICAL:** "C" or better in ENGL 1001; 2.5 Cumulative and LSU GPA.

- ENGL 1001 English Composition (3)
- First Course in Foreign Language Sequence (4)
- General Education course Analytical Reasoning (from Mathematics) (3)
- General Education course Natural Sciences Sequence (3)<sup>1</sup>
- Approved Elective (2)

#### Total Semester Hours: 15

#### Semester 2

**CRITICAL:** "C" or better in course from ENGLISH MAJOR; 2.5 Cumulative and LSU GPA.

- English Major (3)<sup>2</sup>
- Second Course in Foreign Language Sequence (4)

- General Education course Natural Sciences Sequence (3)<sup>1</sup>
- General Education course Humanities (other than English or foreign language) (3)
- Approved Elective (0-2)

#### Total Semester Hours: 13-15 Semester 3

**CRITICAL:** "C" or better in course from ENGLISH MAJOR; 2.5 Cumulative and LSU GPA; Admission to the College.

- ENGL 2710 Descriptive Grammar of English (3) or
- ENGL 2012 Practical Grammar and Usage (3)
- English Major (3)<sup>2</sup>
- Third Course in Foreign Language Sequence (4-3)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Arts (3)
- Total Semester Hours: 16-15

### Semester 4

**CRITICAL:** "C" or better in EDCI 2001; First Course in Foreign Language Sequence; ENGL 2000; 2.5 Cumulative and LSU GPA.

- EDCI 2001 Education, Schooling and Society (3)
- ENGL 2000 English Composition (3)
- ENGL 3015 Composition Tutoring (3) or
- ENGL 3301 Writing: Practice, Pedagogy and History (3)
- British/American/Postcolonial Literature Survey (3)<sup>3</sup>
- Fourth Course in Foreign Language Sequence (4-3)

### Total Semester Hours: 16-15 Semester 5

**CRITICAL:** "C" or better in EDCI 3001 and ENGL 3203; Second Course in Foreign Language sequence; 2.5 Cumulative and LSU GPA.

- EDCI 3001 Student Development and Diversity (3)
- ENGL 3203 Introduction to English Secondary Education (3)
- ENGL 3223 Adolescent Literature (3) or
- EDCI 3223 Adolescent Literature (3)
- British/American/Postcolonial Literature Survey (3)<sup>3</sup>
- Area of Concentration Course (3)<sup>4</sup>
- General Education course Anaytical Reasoning (3)

# Total Semester Hours: 18 Semester 6

- EDCI 3136 Reading in the Content Areas (3)
- ENGL 4203 Writing and Research in the Teaching of English (3)
- ENGL 4710 Introduction to Linguistics (3) or
- LING 4710 Introduction to Linguistics (3) or
- ENGL 4711 History of the English Language (3) or
- LING 4711 History of the English Language (3)
- British/American/Postcolonial Literature Survey (3)<sup>3</sup>
- English Course (4000-level) (3)
- General Education course Social Sciences (3) Total Semester Hours: 16

# Semester 7

- EDCI 4003 Curriculum and Pedagogy in Secondary Disciplines (3)
- ENGL 4204 Capstone Seminar in English Education (3)

- English Course (4000-level) (3)
- Approved Electives (3)

# Total Semester Hours: 12

# Semester 8

- EDCI 4004 Critical Issues in Secondary School Content Area Teaching (3)
- EDCI 4005 Student Teaching in Grades 6-12 Humanities (9)

# Total Semester Hours: 12

# 120 Total Sem. Hrs.

<sup>1</sup> - If two course sequence is taken in the physical sciences, the additional three hour course must be taken from the life sciences, and vice versa.

<sup>2</sup> - Choose six hours from the following: ENGL 2024/ENGL 2824, ENGL 2025, ENGL 2027, ENGL 2029, ENGL 2123/ENGL 2823, ENGL 2148 ENGL 2300, ENGL 2593, ENGL 2673, or ENGL 2674.

 <sup>3</sup> - Choose nine hours from the following: ENGL 3020, ENGL 3022, ENGL 3070, ENGL 3072, or ENGL 3080.
 <sup>4</sup> - Choose three hours from the following: ENGL 3024, ENGL 3084, or ENGL 3384.

# **Department of Foreign Languages & Literatures**

OFFICE	316B Hodges Hall
TELEPHONE	225-578-6616
FAX	225-578-5074
WEBSITE	uiswcmsweb.prod.lsu.edu/hss/fll/

Persons whose native language is German may not take for credit courses GERM 1101, GERM 1102, GERM 2101, and GERM 2102, or GERM 2155 in that language.

Beginning and intermediate Spanish are taken in the following sequence: SPAN 1101, SPAN 1102, SPAN 2101, and SPAN 2102. Students who have taken high school Spanish will be placed according to the number of years they studied Spanish. Students who have fluency in Spanish may not take courses numbered below 3000.

#### **Arabic Studies Minor**

To obtain a *minor in Arabic studies*, a student must complete ARAB 2101, ARAB 2102, ARAB 3101, and ARAB 3102 and six hours of approved electives (18 hours total). A list of approved electives is available from the Department of Foreign Languages & Literatures.

#### **Asian Studies Minor**

To graduate with a *minor in Asian studies*, students must complete at least 18 hours, including at least two courses from two of the following four groups. Of these courses, at least six hours must be taken at LSU at the 3000 or 4000 level.

- Humanities-ARTH 2411, ARTH 4441, ARTH 4442, ARTH 4443; REL 2027, REL 3786, REL 4600, REL 4800; CHIN 2070; HIST 4191/REL 4191; CLST 3090; ENGL 3080, ENGL 4680; ENGL 2673; INTL 4002/ANTH 4002/GEOG 4002/REL 4001; REL 4035.
- *Social Sciences*–GEOG 1003, HIST 2096, HIST 4050, HIST 4078, HIST 4091, HIST 4092, HIST 4093, HIST 4094, HIST 4097; POLI 4067, POLI 4079.
- Languages-CHIN 1101, CHIN 1102, CHIN 2001, CHIN 2002, CHIN 3101, CHIN 3102; CHIN 3801/JAPN 3801 .
- Commerce- ISDS 4160 ; GEOG 4037 ; GBUS 4040 .

Other courses may be acceptable for general credit in Asian Studies, subject to the approval of the Asian Studies faculty, including INTL 4100; ECON 4520; HIST 3117, HIST 4195; ENTR 3111 ; REL 3300, REL 4010; HNRS 2012, HNRS 2013 ; REL 3300.

For additional information, contact the program's director at asianstudies@lsu.edu or visit www.lsu.edu/asianstudies.

#### **Chinese Minor**

To graduate with an undergraduate *minor in Chinese*, students must complete 20 semester hours above CHIN 1102, including CHIN 2001, CHIN 2002, CHIN 3101, CHIN 3102, and six hours of approved electives. A list of approved electives is available in the Department of Foreign Languages and Literatures.

#### **Classical Civilization Minor**

To obtain a *minor in Classical Civilization*, a student must have a minimum of 16 hours of approved courses, of which no more than six hours may be taken outside the department. At least six hours must be at the 3000 level or above. Any course in Latin or Greek language may count toward the minor, as may any Classical Studies course except CLST 2092. At least nine hours must come from Classical Studies courses. A list of courses outside the department which may count toward the minor is available in the departmental office.

#### **German Minor**

A minor in German consists of a total of 22 hours, six of which must be numbered 3000 or above.

#### **Greek Minor**

To obtain a *minor in Greek*, a student must have a minimum of 16 hours of instruction in GREK at the 2000 level and above. At least six hours must be taken at the 3000 level or above.

#### **Italian Minor**

A *minor in Italian* will consist of ITAL 1001, ITAL 1002, ITAL 2101, ITAL 2102, and nine hours of coursework above ITAL 2102, six hours of which must be at the 3000/4000 level.

# **Jewish Studies Minor**

To graduate with a *minor in Jewish Studies*, students in the College of Humanities & Social Sciences must complete 15 hours of electives, including a minimum of six hours at the 3000 level or above. Electives must be chosen from at least two of the following areas:

- *Religious Studies*-REL 1001, REL 1002, REL 1004, REL 1007, REL 2003, REL 2004, REL 2029, REL 2120, REL 3004, REL 3100, REL 3104, REL 3124, REL 4125, and depending on the topic, REL 4236
- Hebrew HEBR 1001, HEBR 1002, HEBR 2003, HEBR 2004
- *Literature*–ENGL 3124, and depending on the topic, ENGL 4055, ENGL 4086, ENGL 4122, ENGL 4231, ENGL 4236, ENGL 4593
- *History*-HIST 4026, HIST 4125
- Anthropology ANTH 3004

For courses that are listed "depending on the topic," students are required to petition to have these courses count and present appropriate documentation indicating the work was completed. In addition, special topics courses and courses with sections advertised as Jewish studies may be accepted for the minor upon approval of the director.

For additional information, contact Professor Joseph Kronick, 260 Allen Hall, 225-578-0809, jkronic@lsu.edu.

#### **Latin Minor**

To obtain a *minor in Latin*, a student must have a minimum of 16 hours of instruction in LATN at the 2000 level and above. At least six hours must be taken at the 3000 level or above.

#### **Spanish Minor**

Requirements for a *minor in Spanish* are completion of 18 semester hours above SPAN 2102, including SPAN 2155, SPAN 2156, SPAN 3010, and nine hours of courses at the 3000/4000 level. Native speakers minoring in Spanish must substitute any 3000 or 4000 level Spanish elective for SPAN 2155 and SPAN 2156.

# Spanish, B.A.

# Spanish

### **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001; SPAN 1101. SEMESTER 2: SPAN 1102. SEMESTER 3: SPAN 2101; Admission to the College.

SEMESTER 4: SPAN 2102. SEMESTER 5: SPAN 2155, SPAN 2156, SPAN 3010. Students majoring in Spanish must receive credit for a minimum of 33 hours in Spanish numbered above SPAN 2102, including SPAN 2155, SPAN 2156, SPAN 3010, SPAN 3020, SPAN 4005 and any four of the following nine: SPAN 3015, SPAN 3043, SPAN 3044, SPAN 3070, SPAN 3071, SPAN 3072, SPAN 3073, SPAN 3074, or SPAN 3980 and at least six hours of 4000 level courses. Native speakers majoring in Spanish must substitute any 3000 or 4000 level Spanish elective for SPAN 2155 and SPAN 2156. Students who have fluency in Spanish may not take courses numbered below 3000.

Consult "Degree Requirements of the College" in this section of the catalog for specific instructions regarding electives. Consult "General Education" section of the catalog for the general education requirements.

# Semester 1

**CRITICAL:** "C" or better in ENGL 1001; SPAN 1101.

- ENGL 1001 English Composition (3)
- SPAN 1101 Elementary Spanish (4) <sup>3</sup>
- General Education course Analytical Reasoning (from Mathematics) (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Humanities (3)

# Total Semester Hours: 16 Semester 2 CRITICAL: SPAN 1102.

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- SPAN 1102 Elementary Spanish (4) <sup>3</sup>
- General Education course Humanities (3)
- Approved Electives or ROTC (4)
- General Education course Natural Sciences (3)<sup>1</sup>

#### **Total Semester Hours: 14**

# Semester 3

**CRITICAL:** SPAN 2101; Admission to the College.

- SPAN 2101 Intermediate Spanish (3)
- General Education course Arts (3)
- General Education course Social Sciences (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- Approved Elective or ROTC (3)

# Total Semester Hours: 15

Semester 4

#### CRITICAL: SPAN 2102.

- SPAN 2102 Intermediate Spanish (3)
- ENGL 2000 English Composition (3)
- General Education course Social Sciences (2000-level) (3)
- General Education course Analytical Reasoning (3)
- Approved Elective or ROTC (3)
- Total Semester Hours: 15

### Semester 5

**CRITICAL:** SPAN 2155, SPAN 2156, SPAN 3010.

- SPAN 2155 Spanish Language and Culture (3)
- SPAN 2156 Intermediate Oral Communication (3)
- SPAN 3010 Spanish Grammar and Composition (3)
- General Education course Humanities (3)
- Approved Elective (3)
- Total Semester Hours: 15

# Semester 6

- SPAN 3020 Literary Analysis (3)
- SPAN 4005 Structure of the Spanish Language (3)
- Spanish Electives (9)<sup>2</sup>

# Total Semester Hours: 15

#### Semester 7

- Spanish Elective (4000-level)  $(3)^2$
- Approved Electives (12)

# Total Semester Hours: 15 Semester 8

- Spanish Elective (3)<sup>2</sup>
- Spanish Elective (4000-level) (3)<sup>2</sup>
- Approved Electives (9)

# Total Semester Hours: 15 120 Total Sem. Hrs.

<sup>1</sup> - If two-course sequence is taken in the physical sciences, then the three-hour course must be taken from the life sciences and vice versa.

<sup>2</sup> - SPANISH ELECTIVES: Take two 4000-level courses, and choose four from SPAN 3015, SPAN 3043, SPAN 3044, SPAN 3070, SPAN 3071, SPAN 3072, SPAN 3073, SPAN 3074, SPAN 3980.

<sup>3</sup> - OPTION: SPAN 1152 may be taken in place of SPAN 1101 and SPAN 1102. If selecting this option, it is recommended that SPAN 1152 be taken in the first semester.

Area of Concentration Secondary Education - Spanish

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001; SPAN 1101; 2.0 Cumulative and LSU GPA.

SEMESTER 2: SPAN 1102; 2.25 Cumulative and LSU GPA.

SEMESTER 3: SPAN 2101; Admission to the College; 2.5 Cumulative and LSU GPA.

SEMESTER 4: EDCI 2001; SPAN 2102; 2.5 Cumulative and LSU GPA.

SEMESTER 5: EDCI 3001; SPAN 3001, SPAN 2155; 2.5 Cumulative and LSU GPA.

### Semester 1

**CRITICAL:** "C" or better in ENGL 1001; SPAN 1101; 2.0 Cumulative and LSU GPA.

- ENGL 1001 English Composition (3)
- SPAN 1101 Elementary Spanish (4) <sup>3</sup>
- General Education course Analytical Reasoning (from Mathematics) (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Humanities (3)

# Total Semester Hours: 16

#### Semester 2

**CRITICAL:** SPAN 1102; 2.25 Cumulative and LSU GPA.

- SPAN 1102 Elementary Spanish (4) <sup>3</sup>
- General Education course Humanities (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- Approved Electives (4)

Total Semester Hours: 14

#### Semester 3

**CRITICAL:** SPAN 2101; Admission to the College; 2.5 Cumulative and LSU GPA.

- SPAN 2101 Intermediate Spanish (3)
- General Education course Arts (3)
- General Education course Social Sciences (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- Approved Elective or ROTC (3)

#### Total Semester Hours: 15

#### Semester 4

**CRITICAL:** EDCI 2001; SPAN 2102; 2.5 Cumulative and LSU GPA.

- SPAN 2102 Intermediate Spanish (3)
- ENGL 2000 English Composition (3)
- EDCI 2001 Education, Schooling and Society (3)
- General Education course Analytical Reasoning (3)

# Total Semester Hours: 12

Semester 5

- **CRITICAL:** EDCI 3001; SPAN 3001, SPAN 2155; 2.5 Cumulative and LSU GPA.
- SPAN 2155 Spanish Language and Culture (3)

- SPAN 2156 Intermediate Oral Communication (3)
- SPAN 3001 Tutoring Learners of Spanish as a Second Language (1)
- SPAN 3010 Spanish Grammar and Composition (3)
- EDCI 3001 Student Development and Diversity (3)
- Spanish 3000-level Elective (3)<sup>2</sup>

#### Total Semester Hours: 16

#### Semester 6

- EDCI 3136 Reading in the Content Areas (3)
- SPAN 3002 Developing Language Lessons for Spanish as a Second Language (1)
- SPAN 3020 Literary Analysis (3)
- SPAN 4005 Structure of the Spanish Language (3)
- Spanish 3000-level Electives (6)<sup>2</sup>

#### Total Semester Hours: 16

Semester 7

- EDCI 4003 Curriculum and Pedagogy in Secondary Disciplines (3)
- SPAN 4003 Instructional Strategies for the Second Language Spanish Classroom (1)
- SPAN 4603 Applied Spanish Linguistics (3)
- SPAN 4602 Spanish Phonetics (3)
- General Education course Humanities (3)
- Spanish 3000-level Elective (3)<sup>2</sup>

#### Total Semester Hours: 16

Semester 8

- EDCI 4004 Critical Issues in Secondary School Content Area Teaching (3)
- EDCI 4005 Student Teaching in Grades 6-12 Humanities (9)
- SPAN 4004 Critical Issues in Teaching Spanish as a Second Language: Capstone Course (3)

#### Total Semester Hours: 15

#### 120 Total Sem. Hrs.

<sup>1</sup> - If two course sequence is taken in the physical sciences, the additional three hour course must be taken from the life sciences, and vice versa.

<sup>2</sup> - SPANISH ELECTIVES: Choose four from the following: SPAN 3015, SPAN 3043, SPAN 3044, SPAN 3070, SPAN 3071, SPAN 3072, SPAN 3073, SPAN 3074, SPAN 3980.

<sup>3</sup> - OPTION: SPAN 1152 may be taken in place of SPAN 1101 and SPAN 1102. If selecting this option, it is recommended that SPAN 1152 be taken in the first semester.

# **Department of French Studies**

OFFICE	416B Hodges Hall
TELEPHONE	225-578-6627
FAX	225-578-6628
WEBSITE	www.lsu.edu/frenchstudies
E-MAIL	lsufren@lsu.edu

A special curriculum leading to the BA degree with departmental honors in French is offered. Details are available from the departmental office.

# **French Minor**

A *minor in French* will consist of 15 hours of coursework: FREN 2154/FREN 2254, FREN 2155, FREN 3060 and six hours of 3000/4000 level courses.

# French, B.A.

# French CRITICAL REQUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001; FREN 1001/FREN 1201.

SEMESTER 2:FREN 1002/FREN 1202. SEMESTER 3: FREN 2101/FREN 2201; Admission to the

#### College. SEMESTER 4: FREN 2102/FREN 2202.

SEMESTER 5: ENGL 2000; FREN 2155.

For a major in French, students must complete a minimum of 36 semester hours in French courses numbered above 2000 with at least a 2.00 GPA.

Consult "Degree Requirements of the College" in this section of the catalog for specific instructions regarding requirements, electives and foreign language requirements. Consult "General Education" section of the catalog for the general education requirements.

# Semester 1

**CRITICAL:** "C" or better in ENGL 1001; FREN 1001/FREN 1201.

- ENGL 1001 English Composition (3)
- FREN 1001 Elementary French (4) or
- FREN 1201 Elementary Cajun French (4)
- General Education course Natural Sciences Sequence (3)<sup>1</sup>
- Approved Elective (2)
- General Education Course Analytical Reasoning (from mathematics department) (3)

# Total Semester Hours: 15

# Semester 2

CRITICAL: FREN 1002/FREN 1202.

- FREN 1002 Elementary French (4) or
- FREN 1202 Elementary Cajun French (4)
- General Education Course Humanities (3)
- General Education course Natural Sciences Sequence (3)<sup>1</sup>
- Approved Electives (6)

# Total Semester Hours: 16

# Semester 3

**CRITICAL:** FREN 2101/FREN 2201; Admission to the College.

- FREN 2101 Intermediate French (3) or
- FREN 2201 Intermediate Cajun French (3)
- General Education course Analytical Reasoning (3)
- General Education course Arts (3)
- General Education course Natural Sciences (3)<sup>1</sup>

• Approved Elective (3)

# Total Semester Hours: 15

# Semester 4

CRITICAL: FREN 2102/FREN 2202.

- FREN 2102 Intermediate French (3) or
- FREN 2202 Intermediate Cajun French (3)
- ENGL 2000 English Composition (3)
- General Education Course Humanities (3)
- Approved Electives (6)

# Total Semester Hours: 15 Semester 5

CRITICAL: ENGL 2000; FREN 2155.

- FREN 2155 Readings in French Literature (3)
- FREN 3060 Advanced French Grammar and Composition (3)
- General Education course Social Sciences (3)
- Approved Electives (6)

# Total Semester Hours: 15

# Semester 6

- FREN 3058 Advanced Oral Communication (3)
- FREN 3071 Survey of French Literature (3)
- FREN 3072 Survey of French Literature (3)
- General Education course Social Sciences (2000-level) (3)
- Approved Elective (3)

# **Total Semester Hours: 15**

# Semester 7

- FREN 3080 French Culture and Civilization (3)
- French 3000/4000 Electives (6)
- Approved Electives (6)

# Total Semester Hours: 15

# Semester 8

- FREN 4003 Senior Seminar (3)
- French 3000/4000 Elective (3)
- Approved Electives (8)

# Total Semester Hours: 14

# 120 Total Sem. Hrs.

<sup>1</sup> - If two course sequence is taken in the physical sciences, the additional three hour course must be taken from the life sciences, and vice versa.

# Area of Concentration Secondary Education - French CRITICAL REQUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001; FREN 1001/FREN 1201; 2.0 Cumulative and LSU GPA. SEMESTER 2:FREN 1002/FREN 1202; 2.25 Cumulative and LSU GPA.

SEMESTER 3: FREN 2101/FREN 2201; Admission to the College; 2.5 Cumulative and LSU GPA.

SEMESTER 4: FREN 2102/FREN 2202; 2.5 Cumulative and LSU GPA.

SEMESTER 5: ENGL 2000; FREN 2155; 2.5 Cumulative and LSU GPA.

#### Semester 1

- **CRITICAL:** "C" or better in ENGL 1001; FREN 1001/FREN 1201; 2.0 Cumulative and LSU GPA.
- ENGL 1001 English Composition (3)
- FREN 1001 Elementary French (4) or
- FREN 1201 Elementary Cajun French (4)
- General Education course Natural Sciences Sequence (3)<sup>1</sup>
- General Education Course Analytical Reasoning (from mathematics department) (3)

# Total Semester Hours: 13

Semester 2

**CRITICAL:** FREN 1002/FREN 1202; 2.25 Cumulative and LSU GPA.

- FREN 1002 Elementary French (4) or
- FREN 1202 Elementary Cajun French (4)
- General Education Course Humanities (3)
- General Education course Natural Sciences Sequence (3)<sup>1</sup>
- Approved Electives (6)

#### Total Semester Hours: 16

# Semester 3

**CRITICAL:** FREN 2101/FREN 2201; Admission to the College; 2.5 Cumulative and LSU GPA.

- FREN 2101 Intermediate French (3) or
- FREN 2201 Intermediate Cajun French (3)
- General Education course Analytical Reasoning (3)
- General Education course Arts (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- Approved Elective (3)

Total Semester Hours: 15

#### Semester 4

**CRITICAL:** FREN 2102/FREN 2202; 2.5 Cumulative and LSU GPA.

- EDCI 2001 Education, Schooling and Society (3)
- ENGL 2000 English Composition (3)
- FREN 2102 Intermediate French (3) or
- FREN 2202 Intermediate Cajun French (3)
- General Education Course Humanities (3)

Approved Elective (3)

# Total Semester Hours: 15

#### Semester 5

**CRITICAL:** ENGL 2000; FREN 2155; 2.5 Cumulative and LSU GPA.

- EDCI 3001 Student Development and Diversity (3)
- FREN 2155 Readings in French Literature (3)
- FREN 3060 Advanced French Grammar and Composition (3)
- FREN 3401 Tutoring Learners of French as a Second Language (1)
- General Education course Social Sciences (3)
- Approved Elective (3)
- Total Semester Hours: 16

# Semester 6

- EDCI 3136 Reading in the Content Areas (3)
- FREN 3058 Advanced Oral Communication (3)
- FREN 3071 Survey of French Literature (3)
- FREN 3072 Survey of French Literature (3)
- FREN 3402 Developing Language Lessons for French as a Second Language (1)
- FREN 4014 Introduction to French Linguistics (3)

### Total Semester Hours: 16

# Semester 7

- EDCI 4003 Curriculum and Pedagogy in Secondary Disciplines (3)
- FREN 3080 French Culture and Civilization (3)
- FREN 4015 Advanced French Phonetics (3)
- FREN 4403 Instructional Strategies for the Second Language French Classroom (1)

#### • Approved Electives (4)

Total Semester Hours: 14

# Semester 8

- EDCI 4004 Critical Issues in Secondary School Content Area Teaching (3)
- EDCI 4005 Student Teaching in Grades 6-12 Humanities (9)
- FREN 4404 Critical Issues in Teaching French as Second Language: Capstone Course (3)

# Total Semester Hours: 15

# 120 Total Sem. Hrs.

<sup>1</sup> - If two course sequence is taken in the physical sciences, the additional three hour course must be taken from the life sciences, and vice versa.

Upon approval of the department, other courses relevant to Secondary Education studies may be accepted for this concentration.

# **Department of Geography & Anthropology**

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# **CURRICULA:**

- Anthropology
- Geography, B.A.
- Geography, B.S.

# Geography

Students majoring in geography may earn either the Bachelor of Arts or Bachelor of Science degree. Students interested in physical geography normally enter the Bachelor of Science program, and those interested in human geography enter the Bachelor of Arts program.

All requirements specified by the College of Humanities & Social Sciences for these respective degrees must be fulfilled. Candidates for the bachelor's degree with a major in geography must complete a curriculum of 30 semester hours for the Bachelor of Arts and 30 semester hours for the Bachelor of Science. Both consist of 12 hours of core courses. For the Bachelor of Arts, three hours of GEOG 2010, three hours of mapping sciences and nine hours of human geography (six hours systematic and three hours regional) are required, or for the Bachelor of Science, nine hours of mapping sciences and nine hours of physical geography are required.

Students may elect to modify the curriculum to fit specific needs, but this must be done in consultation with the departmental advisor. Special emphases are offered in mapping sciences, cultural and historical geography, economic and urban geography, Latin America, Asia, coastal and fluvial geomorphology, and climatology.

Students majoring in geography must pay a field service fee of \$20 per semester for undergraduates and \$25 per semester for graduates. Students not majoring in geography or anthropology who schedule courses requiring field service will be assessed a pro rata part of the transportation costs, as determined by the department chair.

GEOG 4999 is an honors course.

# Anthropology

A Bachelor of Arts is offered in anthropology. Because it is a broad study of peoples, students majoring in anthropology are urged to take courses in the sciences, the social sciences, and the humanities.

Departmental course requirements are few. Students must complete ANTH 1001 and ANTH 1003 and at least three courses from the following: ANTH 2015, ANTH 2051, ANTH 3060, ANTH 4040. A minimum of 24 semester hours in anthropology is required. Courses in archaeology, cultural anthropology, folklore, physical anthropology, and anthropological linguistics are available.

Through consultation with their departmental counselor, students design a specific program to fit their needs.

Because anthropology is a field science, students participate in numerous field trips. To help defray expenses, a field service fee of \$20 per semester is charged to undergraduate majors and \$25 per semester for graduate majors. Non-majors participating in field trip courses will be assessed a fee on a pro rata basis.

# Anthropology, B.A. Anthropology CRITICAL REQUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: ANTH 1001/ANTH 1003. SEMESTER 3: ANTH 1001/ANTH 1003; First Course in Foreign Language Sequence; Admission to the College. SEMESTER 4: ANTH Elective course; Second Course in Foreign Language Sequence.

SEMESTER 5: ANTH Elective course; ENGL 2000. Students majoring in anthropology should request the pamphlet entitled "Undergraduate Program in Anthropology" from the departmental office or from their faculty advisor.

# Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- ANTH 1001 Introduction to Physical Anthropology and Prehistory (3) or
- ANTH 1003 Introduction to Cultural and Social Anthropology (3)
- First Course in Foreign Language Sequence (4)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Humanities (3)

Total Semester Hours: 16

# Semester 2

CRITICAL: ANTH 1001/ANTH 1003.

- ANTH 1001 Introduction to Physical Anthropology and Prehistory (3) or
- ANTH 1003 Introduction to Cultural and Social Anthropology (3)
- Second Course in Foreign Language Sequence (4)
- General Education course Analytical Reasoning (from mathematics) (3)
- Approved Elective (3-5)

# Total Semester Hours: 13-15

# Semester 3

**CRITICAL:** ANTH 1001/ANTH 1003; First Course in Foreign Language Sequence; Admission to the College.

- ANTH Course  $(3)^2$
- General Education course Analytical Reasoning (3)
- Third Course in Foreign Language Sequence (4-3)
- General Education course Natural Sciences (3)<sup>1</sup>
- Approved Elective (3)

# Total Semester Hours: 16-15 Semester 4

**CRITICAL:** ANTH Elective course; Second Course in Foreign Language Sequence.

- ENGL 2000 English Composition (3)
- Fourth Course in Foreign Language Sequence (4-3)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Humanities (3)
- Approved Elective (3)

# Total Semester Hours: 16-15 Semester 5

- **CRITICAL:** ANTH Elective course; ENGL 2000.
  - Approved ANTH Elective (3)
  - General Education course Arts (3)
  - ANTH Course (3)<sup>2</sup>
  - General Education course Social Sciences (3)
  - Approved Elective (3)

# Total Semester Hours: 15 Semester 6

- ANTH Course  $(3)^2$
- General Education course Humanities (3)
- General Education course Social Sciences (2000-level) (3)
- Approved Electives (5)

# Total Semester Hours: 14 Semester 7

- Approved ANTH Elective (3)
- Approved Electives (12)

# Total Semester Hours: 15 Semester 8

- Approved ANTH Elective (3)
- Approved Electives (12)

# Total Semester Hours: 15 120 Total Sem. Hrs.

<sup>1</sup> - If two course sequence is taken in the physical sciences, the additional three hour course must be taken from the life sciences, and vice versa.

<sup>2</sup> - SELECT FROM: ANTH 2015, ANTH 2051, ANTH 3060, ANTH 4040.

# Geography, B.A. Geography, B.A. CRITICAL REQUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: GEOG 1001 or GEOG 1003. SEMESTER 3: GEOG 2050 or GEOG 2051; First Course in Foreign Language Sequence; Admission to the College. SEMESTER 4: GEOG 2010 or GEOG 2040; Second

#### Course in Foreign Language Sequence. SEMESTER 5: ENGL 2000.

Consult "Degree Requirements of the College" in this section of the catalog for specific instructions regarding electives and the "General Education Requirements" section of the catalog.

# Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- GEOG 1001 Human Geography: Americas and Europe (3) or
- GEOG 1003 Human Geography: Africa and Asia (3)
- First Course in Foreign Language Sequence (4)
- General Education course Analytical Reasoning (from mathematics) (3)
- GEOG 2050 Physical Geography: The Atmosphere (3) or
- GEOG 2051 Physical Geography: Land and Water Surfaces, Plant and Animal Realms (3)

# Total Semester Hours: 16 Semester 2

CRITICAL: GEOG 1001 or GEOG 1003.

- GEOG 2050 Physical Geography: The Atmosphere (3) or
- GEOG 2051 Physical Geography: Land and Water Surfaces, Plant and Animal Realms (3)
- Second Course in Foreign Language Sequence (4)
- General Education Course Analytical Reasoning (3)
- General Education Course Humanities (other than foreign language) (3)

# Total Semester Hours: 13

# Semester 3

**CRITICAL:** GEOG 2050 or GEOG 2051; First Course in Foreign Language Sequence; Admission to the College.

- GEOG 2010 Human Geography (3)
- GEOG 2040 Geospatial Technology (3)
- Third Course in Foreign Language Sequence (4-3)
- General Education Course Humanities (other than foreign language) (3)
- General Education Course Life Sciences (3)

Total Semester Hours: 16-15

# Semester 4

**CRITICAL:** GEOG 2010 or GEOG 2040; Second Course in Foreign Language Sequence.

- ENGL 2000 English Composition (3)
- Fourth Course in Foreign Language Sequence (4-3)
- General Education Course Social Sciences (2000-level) (3)
- Approved Electives (5-7)

# Total Semester Hours: 15-16

# Semester 5

CRITICAL: ENGL 2000.

- General Education Course Arts (3)
- GEOG Elective: Regional Group (3)<sup>2</sup>
- Approved Electives (9)

# Total Semester Hours: 15 Semester 6

- GEOG Elective: Mapping Sciences (3)<sup>1</sup>
- GEOG Elective: Systematic Group (3)<sup>3</sup>
- General Education Course Humanities (other than foreign language) (3)
- Approved Electives (6)

# Total Semester Hours: 15 Semester 7

- Upper Division Geography Elective (3)
- Approved Electives (12)

# Total Semester Hours: 15 Semester 8

- GEOG Elective: Systematic Group (3)<sup>3</sup>
- Approved Electives (12)

# Total Semester Hours: 15 120 Total Sem. Hrs.

<sup>1</sup> - MAPPING SCIENCES: GEOG 4020, GEOG 4041, GEOG 4044, GEOG 4045, GEOG 4046, GEOG 4047, GEOG 4048.

<sup>2</sup> - REGIONAL GROUP: ANTH 4051; GEOG 3001, GEOG 4002, GEOG 4031, GEOG 4037, GEOG 4052, or other approved regional course.

3 - SYSTEMATIC GROUP: GEOG 2080, GEOG 3070, GEOG 4061, GEOG 4073, GEOG 4074, GEOG 4077, GEOG 4078, GEOG 4079, GEOG 4080, GEOG 4086, GEOG 4087, GEOG 4090, or other approved systematic geography course

# Area of Concentration Disaster Science and Management CRITICAL REQUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: GEOG 1001 or GEOG 1003. SEMESTER 3: GEOG 2050 or GEOG 2051; First Course in Foreign Language Sequence; Admission to the College. SEMESTER 4: GEOG 2010/GEOG 2040; Second Course in Foreign Language Sequence. SEMESTER 5: ENGL 2000.

#### Semester 1

Critical: "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- GEOG 1001 Human Geography: Americas and Europe (3) or
- GEOG 1003 Human Geography: Africa and Asia (3)
- GEOG 2050 Physical Geography: The Atmosphere (3) or
- GEOG 2051 Physical Geography: Land and Water Surfaces, Plant and Animal Realms (3)
- First Course in Foreign Language Sequence (4)
- General Education Course Analytical Reasoning (From Mathematics) (3)

# Total Semester Hours: 16

#### Semester 2

Critical: GEOG 1001 or GEOG 1003.

- GEOG 2050 Physical Geography: The Atmosphere (3) or
- GEOG 2051 Physical Geography: Land and Water Surfaces, Plant and Animal Realms (3)
- Second Course in Foreign Language Sequence (4)
- General Education Course Analytical Reasoning (3)
- General Education Course Humanities (Other than English or Foreign Language) (3)

#### Total Semester Hours: 13 Semester 3

**Critical:** GEOG 2050 or GEOG 2051; First Course in Foreign Language Sequence;

Admission to the College.

- GEOG 2040 Geospatial Technology (3)
- GEOG 2010 Human Geography (3)
- Third Course in Foreign Language Sequence (4-3)
- General Education Course Life Sciences Lecture (3)
- General Education Course Humanities (Other than English or Foreign Language) (3)
- Total Semester Hours: 16-15

Semester 4

**Critical:** GEOG 2010/GEOG 2040; Second Course in Foreign Language Sequence.

• ENGL 2000 English Composition (3)

- Fourth Course in Foreign Language Sequence (4-3)
- General Education Course Social Sciences (2000-level) (3)
- Approved Electives (5-7)

### Total Semester Hours: 15-16 Semester 5

#### Critical: ENGL 2000.

- General Education Course Arts (3)
- Geography Elective: Regional Group (3)<sup>2</sup>
- DSM Course\* (3)
- Approved Electives (6)

#### Total Semester Hours: 15 Semester 6

- DSM Course\*: One of the three Mapping Sciences (3)
- Geography Electives: Systematic Group (3)<sup>3</sup>
- General Education Course- Humanities (Other Than Foreign Language) (3)
- Approved Electives (6)

#### Total Semester Hours: 15 Semester 7

- Upper Division Geography Elective (3)
- DSM Course\* (3)
- Approved Electives (9)

#### Total Semester Hours: 15 Semester 8

- Geography Electives: Systematic Group (3)<sup>3</sup>
- DSM Course\* (3)
- Approved Electives (9)

Total Semester Hours: 15 120 Total Sem. Hrs. GEOG ELECTIVES: <sup>1</sup>- MAPPING SCIENCES: GEOG 4020, GEOG 4044 , GEOG 4045 , GEOG 4046 , GEOG 4047 , GEOG 4048. <sup>2</sup> - REGIONAL GROUP: ANTH 4051 ; GEOG 3001 ,GEOG 4002 , GEOG 4031 , GEOG 4037 , GEOG 4052 , or other approved regional course. 3 - SYSTEMATIC GROUP: GEOG 2080, GEOG

3070, GEOG 4061, GEOG 4073, GEOG 4074, GEOG 4077, GEOG 4078, GEOG 4079, GEOG 4080, GEOG 4087, GEOG 4080, GEOG 4086, GEOG 4087, GEOG 4090, or other approved systematic geography course

\*DSM Courses: GEOG 2200, GEOG 2210, GEOG 4200; and one of the three mapping sciences classes (GEOG 4044, GEOG 4045, GEOG 4047)

# Environmental Studies CRITICAL REQUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: GEOG 1001 or GEOG 1003 SEMESTER 3: GEOG 2050 or GEOG 2051; First Course in Foreign Language Sequence; Admission to the College. SEMESTER 4: GEOG 2010/GEOG 2040; Second Course in Foreign Language Sequence. SEMESTER 5: ENGL 2000.

#### Semester 1

Critical: "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- General Education Course MATH 1021 College Algebra (3)
- First Course in Foreign Language Sequence (4)
- GEOG 1001 Human Geography: Americas and Europe (3) or
- GEOG 1003 Human Geography: Africa and Asia (3)
- GEOG 2050 Physical Geography: The Atmosphere (3) or
- GEOG 2051 Physical Geography: Land and Water Surfaces, Plant and Animal Realms (3)

**Total Semester Hours: 16** 

Semester 2

- GEOG 2050 Physical Geography: The Atmosphere (3) or
- GEOG 2051 Physical Geography: Land and Water Surfaces, Plant and Animal Realms (3)
- General Education Course MATH 1022 Plane Trigonometry (3)
- Second Course in Foreign Language Sequence (4)
- General Education Course Humanities (Other than English or Foreign Language) (3)

Total Semester Hours: 13

Semester 3

- **Critical:** GEOG 2050 or GEOG 2051; First Course in Foreign Language Sequence; Admission to the College.
- GEOG 2010 Human Geography (3)
- GEOG 2040 Geospatial Technology (3)
- Third Course in Foreign Language Sequence (4-3)
- General Education Course Humanities (Other than English or Foreign Language) (3)
- General Education Course Life Sciences (3) Total Semester Hours: 16-15

Semester 4

**Critical:** GEOG 2010/GEOG 2040; Second Course in Foreign Language Sequence.

- ENGL 2000 English Composition (3)
- Fourth Course in Foreign Language Sequence (4-3)
- General Education Course Social Sciences (2000-level) (3)
- Approved Electives (5-7)
- Total Semester Hours: 15-16

#### Semester 5

Critical: ENGL 2000.

- ES Course GEOG 2080 Humans and the Environment (3)
- General Education Course Arts (3)
- Geography Elective: Regional Group (3)<sup>2</sup>
- Approved Electives (6)

Total Semester Hours: 15

#### Semester 6

ES Course (Systematic Group)<sup>3</sup>:

- GEOG 4078 Environment and Development (3) or
- GEOG 4086 Human-Environment Interactions (3)
- Geography Electives: Mapping Sciences (3)<sup>1</sup>
- General Education Course- Humanities (Other Than Foreign Language) (3)
- Approved Electives (6)

#### Total Semester Hours: 15

Semester 7

- ES Course (Systematic Group)<sup>3</sup>:
- GEOG 4078 Environment and Development (3) or
- GEOG 4086 Human-Environment Interactions (3)
- Approved ES Electives (3)
- Approved Electives (9)

Total Semester Hours: 15 Semester 8

- Approved ES Elective (3)
- Approved Electives (12)

#### Total Semester Hours: 15 120 Total Sem. Hrs.

GEOG ELECTIVES:

<sup>1</sup>- MAPPING SCIENCES: GEOG 4020, GEOG 4044, GEOG 4045, GEOG 4046, GEOG 4047, GEOG 4048.

<sup>2</sup> - REGIONAL GROUP: ANTH 4051, GEOG
3001, GEOG 4002, GEOG 4031, GEOG 4037, GEOG
4052, or other approved regional course.
3 - SYSTEMATIC GROUP: GEOG 4061, GEOG
4073, GEOG 4074, GEOG 4077, GEOG 4078, GEOG
4079, GEOG 4080, GEOG 4086, GEOG 4087, GEOG
4090, or other approved systematic geography course

#### ENVIRONMENTAL STUDIES (ES) COURSES:

Critical: GEOG 1001 or GEOG 1003.

Required Core Course: GEOG 2080 Required Fundamental Courses:GEOG 4078, GEOG 4086 Electives (6 hours, at least 3 hours in GEOG): ANTH 2050, ECON 4320, EMS 2011, EMS 3040, GEOG 3070, GEOG 4029, PHIL 2021, or other approved course.

# Geographic Information Science CRITICAL REQUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: GEOG 1001 or GEOG 1003. SEMESTER 3: GEOG 2050 or GEOG 2051; First Course in Foreign Language Sequence; Admission to the College. SEMESTER 4: GEOG 2010/GEOG 2040; Second Course in Foreign Language Sequence. SEMESTER 5: ENGL 2000.

### Semester 1

- Critical: "C" or better in ENGL 1001.
- ENGL 1001 English Composition (3)
- First Course in Foreign Language Sequence (4)
- General Education Course Analytical Reasoning (From Mathematics) (3)
- GEOG 1001 Human Geography: Americas and Europe (3) or
- GEOG 1003 Human Geography: Africa and Asia (3)
- GEOG 2050 Physical Geography: The Atmosphere (3) or
- GEOG 2051 Physical Geography: Land and Water Surfaces, Plant and Animal Realms (3)

# Total Semester Hours: 16

#### Semester 2

- Critical: GEOG 1001 or GEOG 1003.
- GEOG 2050 Physical Geography: The Atmosphere (3) or
- GEOG 2051 Physical Geography: Land and Water Surfaces, Plant and Animal Realms (3)
- Second Course in Foreign Language Sequence (4)
- General Education Course Analytical Reasoning (3)
- General Education Course Humanities (Other than English or Foreign Language) (3)

# Total Semester Hours: 13

# Semester 3

- Critical: GEOG 2050 or GEOG 2051 First Course in Foreign Language Sequence; Admission to the College.
- GEOG 2040 Geospatial Technology (3)
- GEOG 2010 Human Geography (3)

- Third Course in Foreign Language Sequence (4-3)
- General Education Course Humanities (Other than English or Foreign Language) (3)
- General Education Course Life Sciences Lecture (3)

#### Total Semester Hours: 16-15

#### Semester 4

**Critical:** GEOG 2010/GEOG 2040 ; Second Course in Foreign Language Sequence.

- ENGL 2000 English Composition (3)
- Fourth Course in Foreign Language Sequence (4-3)
- General Education Course Social Sciences (2000-level) (3)
- Approved Electives (5-7)

Total Semester Hours: 15-16

#### Semester 5

Critical: ENGL 2000.

- General Education Course Arts (3)
- Geography Elective: Regional Group (3)<sup>2</sup>
- Geography Elective: Mapping Sciences (3)<sup>1</sup>
- Approved Electives (6)

### Total Semester Hours: 15 Semester 6

- Geography Electives: Mapping Sciences (6)<sup>1</sup>
- Geography Electives: Systematic Group (3)<sup>3</sup>
- General Education Course- Humanities (Other Than Foreign Language) (3)
- Approved Electives (3)

### Total Semester Hours: 15 Semester 7

- Upper Division Geography Elective (3)
- Geography Elective: Mapping Sciences (3)<sup>1</sup>
- Approved Electives (9)

#### Total Semester Hours: 15 Semester 8

- Geography Electives: Systematic Group (3)<sup>3</sup>
- Approved Electives (12)

# Total Semester Hours: 15 120 Total Sem. Hrs.

GEOG ELECTIVES: <sup>1</sup>- MAPPING SCIENCES: GEOG 4020, GEOG 4044, GEOG 4045, GEOG 4046, GEOG 4047, GEOG 4048. <sup>2</sup>- REGIONAL GROUP: ANTH 4051; GEOG 3001 ,GEOG 4002, GEOG 4031 ,GEOG 4037, GEOG 4052 , or other approved regional course. 3 - SYSTEMATIC GROUP: GEOG 2080, GEOG 3070, GEOG 4061, GEOG 4073 ,GEOG 4074, GEOG 4077, GEOG 4078, GEOG 4079 ,GEOG 4080, GEOG 4086, GEOG 4087, GEOG 4090 or other approved systematic geography course

# Geography, B.S.

# Geography, B.S. CRITICAL REQUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: GEOG 1001 or GEOG 1003; MATH 1021. SEMESTER 3: GEOG 2050 and GEOG 2051; First Course in Foreign Language Sequence; Admission to the College. SEMESTER 4: Second Course in Foreign Language Sequence.

SEMESTER 5: GEOG 2040; ENGL 2000.

Consult "Degree Requirements of the College" in this section of the catalog for specific instructions regarding electives and the "General Education Requirements" section of the catalog.

# Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- GEOG 1001 Human Geography: Americas and Europe (3) or
- GEOG 1003 Human Geography: Africa and Asia (3)
- MATH 1021 College Algebra (3)
- First Course in Foreign Language Sequence (4)
- GEOG 2050 Physical Geography: The Atmosphere (3) or
- GEOG 2051 Physical Geography: Land and Water Surfaces, Plant and Animal Realms (3)

# Total Semester Hours: 16 Semester 2

CRITICAL: GEOG 1001 or GEOG 1003; MATH 1021.

- GEOG 2050 Physical Geography: The Atmosphere (3) or
- GEOG 2051 Physical Geography: Land and Water Surfaces, Plant and Animal Realms (3)
- Second Course in Foreign Language Sequence (4)
- General Education Course Humanities (other than foreign language) (3)
- General Education Course Life Sciences (3)

# Total Semester Hours: 13

# Semester 3

**CRITICAL:** GEOG 2050 and GEOG 2051; First Course in Foreign Language Sequence; Admission to the College.

- CSC 1240 Statistics and Graphics with MATLAB (3) or
- Other Approved Computer Science Course (3)
- MATH 1022 Plane Trigonometry (3)
- Third Course in Foreign Language Sequence (4-3)
- General Education Course Social Sciences (other than GEOG; 2000-level) (3)
- General Education Course Humanities (other than ENGL or foreign language) (3)

# Total Semester Hours: 16-15 Semester 4

**CRITICAL:** Second Course in Foreign Language Sequence.

- ENGL 2000 English Composition (3)
- GEOG 2040 Geospatial Technology (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- Fourth Course in Foreign Language Sequence (4-3)

# Total Semester Hours: 15-14

# Semester 5

CRITICAL:GEOG 2040; ENGL 2000.

- EXST 2201 Introduction to Statistical Analysis (4)
- GEOG Elective: Mapping Sciences or Physical Geography (3)
- General Education course Arts (3)
- General Education course Humanities (other than foreign language) (3)
- Approved Elective (3)

# Total Semester Hours: 16 Semester 6

- GEOG Elective(s): Mapping Sciences or Physical Geography (3-6)
- Science Elective (3000-level or above and other than GEOG) (3)
- Approved Electives (9)

# Total Semester Hours: 15-18 Semester 7

- GEOG Elective(s): Mapping Sciences or Physical Geography (6-3)
- Approved Electives (9)

# Total Semester Hours: 15-12 Semester 8

- GEOG Electives: Mapping Sciences or Physical Geography (6)
- Approved Electives (8-10)

# Total Semester Hours: 14-16 120 Total Sem. Hrs.

GEOG ELECTIVES -- MAPPING SCIENCES: GEOG 4020, GEOG 4041, GEOG 4044, GEOG 4045, GEOG 4046, GEOG 4047, GEOG 4048.

-- PHYSICAL GEOGRAPHY: GEOG 2080, GEOG 3013, GEOG 3070, GEOG 4014, GEOG 4015, GEOG 4016, GEOG 4018, GEOG 4022, GEOG 4024, GEOG 4029, GEOG 4083, GEOG 4221.

# Area of Concentration Climatology

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: GEOG 1001 or GEOG 1003; MATH 1021 SEMESTER 3: GEOG 2050 and GEOG 2051; First Course in Foreign Language Sequence; Admission to the College. SEMESTER 4: GEOG 2010/GEOG 2040; Second Course in Foreign Language Sequence. SEMESTER 5: GEOG 2040; ENGL 2000.

# Semester 1

Critical: "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- MATH 1021 College Algebra (3)
- GEOG 1001 Human Geography: Americas and Europe (3) or
- GEOG 1003 Human Geography: Africa and Asia (3)
- GEOG 2050 Physical Geography: The Atmosphere (3) or
- GEOG 2051 Physical Geography: Land and Water Surfaces, Plant and Animal Realms (3)

• First Course in Foreign Language Sequence (4) Total Semester Hours: 16 Semester 2

Critical: GEOG 1001 or GEOG 1003; MATH 1021.

- GEOG 2050 Physical Geography: The Atmosphere (3) or
- GEOG 2051 Physical Geography: Land and Water Surfaces, Plant and Animal Realms (3)
- Second Course in Foreign Language Sequence (4)
- General Education Course Life Sciences Lecture (3)
- General Education Course Humanities (Other than English or Foreign Language) (3)

Total Semester Hours: 13

# Semester 3

**Critical:** GEOG 2050 and GEOG 2051; First Course in Foreign Language Sequence; Admission to the College.

- MATH 1022 Plane Trigonometry (3)
- CSC 1250 Introduction to Programming (3) or
- CSC 1253 Computer Science I with C++ (3)
- General Education Course Social Sciences (Other than GEOG; 2000-Level) (3)
- Third Course in Foreign Language Sequence (4-3)
- General Education Course Humanities (Other than English or Foreign Language) (3)

Total Semester Hours: 16-15

#### Semester 4

**Critical:** GEOG 2010/GEOG 2040; Second Course in Foreign Language Sequence.

- ENGL 2000 English Composition (3)
- GEOG 2040 Geospatial Technology (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- Fourth Course in Foreign Language Sequence (4-3)

Total Semester Hours: 14-15

#### Semester 5

Critical: GEOG 2040; ENGL 2000.

- EXST 2201 Introduction to Statistical Analysis (4)
- Geography Elective: Mapping Sciences (3)
- General Education Course Arts (3)
- General Education Course Humanities (Other than Foreign Language) (3)

• CLIM Course: GEOG 3013 Meteorology (3) Total Semester Hours: 16

# Semester 6

- CLIM Course: GEOG 4014 Climatology (3)
- Geography Electives: Mapping Sciences (3)
- General Education Course Humanities (Other than Foreign Language) (3)
- Approved Electives (6)

Total Semester Hours: 15

#### Semester 7

- Mapping Sciences:
- GEOG 4045 Environmental Remote Sensing (3) or
- GEOG 4047 Geographic Information Systems (3)
- CLIM Course: GEOG 4016 Methods of Climatological Analysis (3)
- Geography Electives: Physical Geography (3)
- Approved Electives (6)

Total Semester Hours: 15

#### Semester 8

- Geography Electives: Physical Geography (3)
- Approved Electives (12)

#### Total Semester Hours: 15 120 Total Semester Hours

GEOG ELECTIVES:

Mapping Sciences: GEOG 4020, GEOG 4041, GEOG 4044, GEOG 4045, GEOG 4046, GEOG 4047, GEOG 4048.

Physical Geography: GEOG 2080, GEOG 3013, GEOG 3070, GEOG 4014, GEOG 4015, GEOG 4016, GEOG 4018, GEOG 4022, GEOG 4024, GEOG 4029, GEOG 4083, GEOG 4221.

# Disaster Science and Management CRITICAL REQUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: GEOG 1001 or GEOG 1003; MATH 1021. SEMESTER 3: GEOG 2050 and GEOG 2051; First Course in Foreign Language Sequence; Admission to the College. SEMESTER 4: Second Course in Foreign Language Sequence.

SEMESTER 5: GEOG 2040; ENGL 2000.

### Semester 1

Critical: "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- GEOG 1001 Human Geography: Americas and Europe (3) or
- GEOG 1003 Human Geography: Africa and Asia (3)
- GEOG 2050 Physical Geography: The Atmosphere (3) or
- GEOG 2051 Physical Geography: Land and Water Surfaces, Plant and Animal Realms (3)
- MATH 1021 College Algebra (3)
- First Course in Foreign Language Sequence (4)

# Total Semester Hours: 16

#### Semester 2

- **Critical:** GEOG 1001 or GEOG 1003; MATH 1021.
- GEOG 2050 Physical Geography: The Atmosphere (3) or
- GEOG 2051 Physical Geography: Land and Water Surfaces, Plant and Animal Realms (3)
- Second Course in Foreign Language Sequence (4)
- General Education Course Life Sciences Lecture (3)

- General Education Course Humanities (Other than English or Foreign Language) (3)
- Total Semester Hours: 13

#### Semester 3

**Critical:** GEOG 2050 and GEOG 2051; First Course in Foreign Language Sequence; Admission to the College.

- MATH 1022 Plane Trigonometry (3)
- CSC 1240 Statistics and Graphics with MATLAB (3) or
- Other Approved Computer Science Course (3)
- General Education Course Social Sciences (Other than GEOG; 2000-Level) (3)
- Third Course in Foreign Language Sequence (4-3)
- General Education Course Humanities (Other than English or Foreign Language) (3)

Total Semester Hours: 16-15

#### Semester 4

**Critical:** Second Course in Foreign Language Sequence.

- ENGL 2000 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- GEOG 2040 Geospatial Technology (3)
- Fourth Course in Foreign Language Sequence (4-3)

# Total Semester Hours: 15-14

# Semester 5

Critical: GEOG 2040;ENGL 2000.

- EXST 2201 Introduction to Statistical Analysis (4)
- Geography Elective: Mapping Sciences or Physical (3)
- General Education Course Arts (3)
- General Education Course Humanities (Other than English or Foreign Language) (3)
- DSM Course\* (3)

#### Total Semester Hours: 16

#### Semester 6

- Geography Electives: Mapping Sciences or Physical (3-6)
- Science Elective (3000-level or Above Other Than Geog) (3)
- DSM Course\* (3)
- Approved Electives (6)

### Total Semester Hours: 15-18 Semester 7

- Geography Electives: Mapping Sciences or Physical (6-3)
- DSM Course\* (3)

• Approved Electives (6)

#### Total Semester Hours: 15-12 Semester 8

- Geography Electives: Mapping Sciences or Physical (6)
- DSM Course\* (3)
- Approved Electives (5-7)

# Total Semester Hours: 14-16 120 Total Sem. Hrs.

GEOG ELECTIVES: Mapping Sciences: GEOG 4020, GEOG 4044, GEOG 4045, GEOG 4046, GEOG 4047, GEOG 4048. Physical Geography: GEOG 2080, GEOG 3013, GEOG 3070, GEOG 4014, GEOG 4015, GEOG 4016, GEOG 4018, GEOG 4022, GEOG 4024, GEOG 4029, GEOG 4041, GEOG 4083, GEOG 4221. \*DSM Courses: GEOG 2200, GEOG 2210, GEOG 4200; and one of the three mapping sciences classes (GEOG 4044, GEOG 4045, GEOG 4047)

# Geographic Information Science CRITICAL REQUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: GEOG 1001 or GEOG 1003; MATH 1021. SEMESTER 3: GEOG 2050 and GEOG 2051; First Course in Foreign Language Sequence; Admission to the College. SEMESTER 4: Second Course in Foreign Language Sequence.

SEMESTER 5: GEOG 2040; ENGL 2000.

# Semester 1

Critical: "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- GEOG 1001 Human Geography: Americas and Europe (3) or
- GEOG 1003 Human Geography: Africa and Asia (3)
- First Course in Foreign Language Sequence (4)
- MATH 1021 College Algebra (3)
- GEOG 2050 Physical Geography: The Atmosphere (3) or
- GEOG 2051 Physical Geography: Land and Water Surfaces, Plant and Animal Realms (3)

Total Semester Hours: 16

#### Semester 2

- **Critical:** GEOG 1001 or GEOG 1003; MATH 1021.
- GEOG 2050 Physical Geography: The Atmosphere (3) or

- GEOG 2051 Physical Geography: Land and Water Surfaces, Plant and Animal Realms (3)
- Second Course in Foreign Language Sequence (4)
- General Education Course Life Sciences Lecture (3)
- General Education Course Humanities (Other than English or Foreign Language) (3)
- Total Semester Hours: 13

#### Semester 3

**Critical:** GEOG 2050 and GEOG 2051; First Course in Foreign Language Sequence; Admission to the College.

- MATH 1022 Plane Trigonometry (3)
- CSC 1240 Statistics and Graphics with MATLAB (3) or
- Other Approved Computer Science Course (3)
- General Education Course Social Sciences (Other than GEOG; 2000-Level) (3)
- Third Course in Foreign Language Sequence (4-3)
- General Education Course Humanities (Other than English or Foreign Language) (3)

Total Semester Hours: 16-15

#### Semester 4

- **Critical:** Second Course in Foreign Language Sequence.
- ENGL 2000 English Composition (3)
- GEOG 2040 Geospatial Technology (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- Fourth Course in Foreign Language Sequence (4-3)

Total Semester Hours: 15-14 Semester 5

Critical: GEOG 2040;ENGL 2000.

- EXST 2201 Introduction to Statistical Analysis (4)
- Geography Elective: Mapping Sciences or Physical (3)
- General Education Course Arts (3)
- General Education Course Humanities (Other than English or Foreign Language) (3)
- Approved Elective (3)
- Total Semester Hours: 16

### Semester 6

- Geography Electives: Mapping Sciences or Physical (6-9)
- Science Elective (3000-level or Above Other Than Geog) (3)
- Approved Electives (6)

### Total Semester Hours: 15-18 Semester 7

- Geography Electives: Mapping Sciences or Physical (6-3)
- Approved Electives (9)

### Total Semester Hours: 15-12 Semester 8

• Geography Electives: Mapping Sciences or Physical (6)

• Approved Electives (8-10)

Total Semester Hours: 14-16 120 Total Sem. Hrs. GEOG ELECTIVES: Mapping Sciences: GEOG 4020, GEOG 4044, GEOG 4045 ,GEOG 4046, GEOG 4047, GEOG 4048. Physical Geography: GEOG 2080, GEOG 3013 ,GEOG 3070, GEOG 4014, GEOG 4015 ,GEOG 4016, GEOG 4018, GEOG 4022, GEOG 4024, GEOG 4029, GEOG 4041, GEOG 4083 ,GEOG 4221.

### **Anthropology Minor**

Requirements for a *minor in anthropology* are ANTH 1001, ANTH 1003, and nine hours to be taken from the following three groups with no more than six hours total from any one group:

Group 1 (method and laboratory) – ANTH 2016, ANTH 3401, ANTH 4010, ANTH 4020, ANTH 4021, ANTH 4083, ANTH 4090;

*Group 2 area*) – ANTH 2050, ANTH 3004, ANTH 4004, ANTH 4017, ANTH 4023, ANTH 4050, ANTH 4051, ANTH 4053, ANTH 4470, ANTH 4475; and

*Group 3 (topical)* – ANTH 2015, ANTH 2051, ANTH 2423, ANTH 3060, ANTH 4018, ANTH 4031, ANTH 4040, ANTH 4060, ANTH 4074, ANTH 4082, ANTH 4086, ANTH 4440.

In addition, ANTH 4909, ANTH 4998, and ANTH 4999 may be included in the nine hours. Placement of these courses in the above groups depends on the topic and must be determined by the department on a case-by-case basis.

### **Climatology Minor**

The *Minor in Climatology* requires a total of 18 hours: **Core Courses - 15 hours** 

- GEOG 2050 Physical Geography: The Atmosphere (3)
- GEOG 3013 Meteorology (3)
- GEOG 4014 Climatology (3)
- GEOG 4016 Methods of Climatological Analysis (3)

Students will select ONE of the following 2 Geospatial Techniques classes:

- GEOG 4045 Environmental Remote Sensing (3)
- GEOG 4047 Geographic Information Systems (3)

Electives - 3 hours

- GEOG 4015 Physical Climatology (3)
- GEOG 4018 Geographical Hydrology (3)
- GEOG 4022 Geomorphology (3)
- GEOG 4083 Environmental Change of the Ice Age (3)
- GEOG 4221 The Tropical Atmosphere (3)
- GEOG 4995 Internship (1-3)
- GEOG 4997 Special Topics in Geography (3)

#### **Disaster Science & Management Minor**

Core Courses - 12 Hours

- GEOG 2200 Hazards, Disasters and the Environment (3)
- GEOG 2210 Fundamentals of Emergency Management (3)
- GEOG 4200 Hazard Risk Reduction (3)

Students will select one of the following 3 Geospatial Techniques classes:

- GEOG 4044 Computer Cartography (3)
- GEOG 4045 Environmental Remote Sensing (3)
- GEOG 4047 Geographic Information Systems (3)

Electives - 6 hours

- GEOG 3001 Geography of Louisiana (3)
- GEOG 3013 Meteorology (3)
- GEOG 4014 Climatology (3)
- GEOG 4015 Physical Climatology (3)
- GEOG 4018 Geographical Hydrology (3)
- GEOG 4022 Geomorphology (3)
- GEOG 4029 Coastal Resources and Management (3)
- GEOG 4078 Environment and Development (3)
- GEOG 4221 The Tropical Atmosphere (3)

- GEOG 4997 Special Topics in Geography (3)†
- GEOG 4995 Internship (1-3)
- ANTH 4909 Undergraduate Seminar in Anthropology (3)†
- ANTH 4090 Ethnographic Methodology (3)
- ANTH 4997 Special Topics in Anthropology (3)<sup>†</sup>

<sup>†</sup> Special Topics courses are eligible for the DSM minor **ONLY** when the content is relevant to DSM studies and with permission of the instructor and the Department of Geography and Anthropology.

# **Geographic Information Systems Minor**

The *minor in Geographic Information Systems (GIS)* provides students with training in critical GIS skills in acquiring, managing, analyzing, and presenting spatial data and prepares them for an ever expanding GIS job market in the public, not-for-profit, or private sectors.

To graduate with a minor in GIS, students must complete 15 hours of coursework. Prerequisites may extend the hours beyond fifteen.

Required core courses (nine hours): GEOG 4045, GEOG 4047, GEOG 4048; Selecting from (six hours): GEOG 2040, GEOG 4020, GEOG 4042, GEOG 4044, GEOG 4046; ENVS 4145, ENVS 4149 or any courses approved by the program director.

#### **Geography Minor**

Requirements for a *minor in geography* are one course selected from GEOG 1001 or GEOG 1003; GEOG 2050 and GEOG 2051; one course selected from GEOG 2080, GEOG 4020, GEOG 4041, and GEOG 4045; and two additional 3000 or 4000 level geography courses.

# **Department of History**

OFFICE 224 Himes Hall TELEPHONE 225-578-4471 FAX 225-578-4909 WEBSITE www.artsci.lsu.edu/hist

A special curriculum leading to the BA degree with departmental honors in history is also offered. Details are available from the departmental office.

The department offers programs of study leading to the MA and PhD degrees.

# **History Minor**

A *minor in history* requires a total of at least 18 hours, including any two-semester six-hour course sequence at the 1000 or 2000 level; three courses at the 3000 or 4000 level; and one additional three hour course in history.

# History, B.A.

# History CRITICAL REQUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: HIST 1001/HIST 1005 or HIST 1003/HIST 1007

SEMESTER 3: HIST 1001/HIST 1005 or HIST 1003/HIST 1007; First Course in Foreign Language Sequence; Admission to the College.

SEMESTER 4: HIST 2055/HIST 2057; Second Course in Foreign Language Sequence.

SEMESTER 5: HIST 2055/HIST 2057; ENGL 2000. Students majoring in history must complete 33 semester hours. These hours must include:

A- Lower-level requirements: HIST 1001 or HIST 1005, HIST 1003 or HIST 1007, HIST 2055, HIST 2057.

B- Distribution requirements: at least three hours in history courses 2000 or above (excluding HIST 2055 and HIST 2057) must be taken in each of the following general subject areas: U.S. History, European History, and World History (Latin American, Asian, and African) C- Upper-level requirements: at least 15 semester hours in history courses 3000 or above. Students are strongly encouraged to ensure that these 15 hours include at least one of the following: a history seminar HIST 3117, HIST 3118, HIST 3119; a history internship; or a history servicelearning course. Students majoring in history must also complete at least six credit hours in Humanities courses that do not include history courses. Fundamental courses in economics, geography, political science, psychology, and sociology are also recommended.

Consult "Degree Requirements of the College" in this section of the catalog for specific instructions regarding approved electives and foreign language requirements. Consult "General Education" section of the catalog for the general education requirements.

# Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- HIST 1001 Western Civilization to 1500 (3) or
- HIST 1005 World History to 1500 (3) or
- HIST 1003 Western Civilization Since 1500 (3) or
- HIST 1007 World History Since 1500 (3)
- First Course in Foreign Language Sequence (4)
- General Education course Analytical Reasoning (from mathematics) (3)
- General Education course Natural Sciences (3)<sup>1</sup>

# Total Semester Hours: 16

# Semester 2

**CRITICAL:** HIST 1001/HIST 1005 or HIST 1003/HIST 1007.

• HIST 1001 Western Civilization to 1500 (3) or

- HIST 1005 World History to 1500 (3) or
- HIST 1003 Western Civilization Since 1500 (3) or
- HIST 1007 World History Since 1500 (3)
- Second Course in Foreign Language Sequence (4)
- General Education course Arts (3)
- General Education course Natural Sciences (3)<sup>1</sup>

# Total Semester Hours: 13

### Semester 3

**CRITICAL:** HIST 1001/HIST 1005 or HIST 1003/HIST 1007; First Course in Foreign Language Sequence; Admission to the College.

- HIST 2055 The United States to 1865 (3) or
- HIST 2057 The United States from 1865 to the Present (3)
- Third Course in Foreign Language Sequence (4-3)
- General Education course Analytical Reasoning (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Humanities (3)

# Total Semester Hours: 16-15 Semester 4

**CRITICAL:** HIST 2055/HIST 2057; Second Course in Foreign Language Sequence.

- HIST 2055 The United States to 1865 (3) or
- HIST 2057 The United States from 1865 to the Present (3)
- ENGL 2000 English Composition (3)
- General Education course Humanities (3)
- Fourth Course in Foreign Language Sequence (4-3)
- Approved Elective (3)

Total Semester Hours: 16-15

# Semester 5

**CRITICAL:** HIST 2055/HIST 2057; ENGL 2000.

- Approved History Electives [HIST 3117/HIST 3118/HIST 3119 encouraged] (6)
- General Education course Social Sciences (3)
- Approved Electives (6-7)

# Total Semester Hours: 15-16 Semester 6

- Approved History Elective [History internship or History service-learning encouraged] (3)
- General Education course Humanities (3)
- General Education course Social Sciences (2000-level) (3)
- Approved Electives (6-7)

# Total Semester Hours: 15-16 Semester 7

- Approved History Electives (6)
- Approved Electives (9)

# Total Semester Hours: 15 Semester 8

- Approved History Electives (6)
- Approved Electives (8)

# Total Semester Hours: 14 120 Total Sem. Hrs.

<sup>1</sup> - If two course sequence is taken in the physical sciences, the additional three hour course must be taken from the life sciences, and vice versa.

# Area of Concentration Secondary Education - History CRITICAL REQUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001; 2.5 Cumulative and LSU GPA.

SEMESTER 2: HIST 1001/HIST 1005 or HIST 1003/HIST 1007; 2.5 Cumulative and LSU GPA.

SEMESTER 3: HIST 1001/HIST 1005 or HIST 1003/HIST 1007; First Course in Foreign Language Sequence; Admission to the College; 2.5 Cumulative and LSU GPA. SEMESTER 4: HIST 2055/HIST 2057; Second Course in Foreign Language Sequence; 2.5 Cumulative and LSU GPA.

SEMESTER 5: HIST 2055/HIST 2057; ENGL 2000; 2.5 Cumulative and LSU GPA.

# Semester 1

**CRITICAL:** "C" or better in ENGL 1001; 2.5 Cumulative and LSU GPA.

- ENGL 1001 English Composition (3)
- HIST 1001 Western Civilization to 1500 (3) or
- HIST 1005 World History to 1500 (3) or
- HIST 1003 Western Civilization Since 1500 (3) or
- HIST 1007 World History Since 1500 (3)
- First Course in Foreign Language Sequence (4)
- General Education course Analytical Reasoning (from mathematics) (3)
- General Education course Natural Sciences (3)<sup>1</sup> Total Semester Hours: 16

Semester 2

**CRITICAL:** HIST 1001/HIST 1005 or HIST 1003/HIST 1007; 2.5 Cumulative and LSU GPA.

- HIST 1001 Western Civilization to 1500 (3) or
- HIST 1005 World History to 1500 (3) or

- HIST 1003 Western Civilization Since 1500 (3) or
- HIST 1007 World History Since 1500 (3)
- Second Course in Foreign Language Sequence (4)
- General Education course Arts (3)
- General Education course Natural Sciences (3)<sup>1</sup>

Total Semester Hours: 13

#### Semester 3

**CRITICAL:** HIST 1001/HIST 1005 or HIST 1003/HIST 1007; First Course in Foreign Language Sequence; Admission to the College; 2.5 Cumulative and LSU GPA.

- HIST 2055 The United States to 1865 (3) or
- HIST 2057 The United States from 1865 to the Present (3)
- Third Course in Foreign Language Sequence (4-3)
- General Education course Analytical Reasoning
   (3)
- General Education course Natural Sciences (3)<sup>1</sup>
  Area Requirement (3)<sup>2</sup>
- Total Semester Hours: 16-15

# Semester 4

**CRITICAL:** HIST 2055/HIST 2057; Second Course in Foreign Language Sequence; 2.5 Cumulative and LSU GPA.

- HIST 2055 The United States to 1865 (3) or
- HIST 2057 The United States from 1865 to the Present (3)
- ENGL 2000 English Composition (3)
- EDCI 2001 Education, Schooling and Society (3)
- Fourth Course in Foreign Language Sequence (4-3)
- Area Requirement (3)<sup>3</sup>
- Total Semester Hours: 16-15

#### Semester 5

**CRITICAL:** HIST 2055/HIST 2057; ENGL 2000; 2.5 Cumulative and LSU GPA.

- EDCI 3001 Student Development and Diversity (3)
- HIST 3001 History and the Social Sciences I (1)
- Approved History Electives (6)
- Area Requirements (6)<sup>2</sup>
- Total Semester Hours: 16

#### Semester 6

- EDCI 3136 Reading in the Content Areas (3)
- HIST 3002 History and the Social Sciences II (1)
- Approved History Electives (6)
- Area Requirements (6)<sup>3</sup>

Total Semester Hours: 16

#### Semester 7

- EDCI 4003 Curriculum and Pedagogy in Secondary Disciplines (3)
- HIST 4403 History and the Social Sciences III (1)
- Approved History Elective (3)
- Area Requirement (3)<sup>4</sup>
- Approved Electives (2-4)

Total Semester Hours: 12-14

# Semester 8

- EDCI 4004 Critical Issues in Secondary School Content Area Teaching (3)
- EDCI 4005 Student Teaching in Grades 6-12 Humanities (9)
- HIST 4404 Seminar in History and the Social Sciences (3)
- **Total Semester Hours: 15**

#### 120 Total Sem. Hrs.

<sup>1</sup> - If two course sequence is taken in the physical sciences, the additional three hour course must be taken from the life sciences, and vice versa.

<sup>2</sup> - Area requirements I: complete nine hours in one of the following: 1) ECON 2000, ECON 2010, ECON 2035; or 2) three hours from GEOG 1001, GEOG 1003, ANTH 1003; three hours from GEOG 2050, GEOG 2051; three hours from GEOG 4031, GEOG 4052, ANTH 4023, ANTH 4053, GEOG 4073, GEOG 4077; or 3) POLI 2051, POLI 2056; and three hours in a POLI course, at the 3000-level or above.

<sup>3</sup> - Area requirements II: Complete nine hours in one of the fields not chosen for Area Requirements I: 1) ECON 2000, ECON 2010, ECON 2035; or 2) three hours from GEOG 1001, GEOG 1003, ANTH 1003; three hours from GEOG 2050, GEOG 2051; three hours from GEOG 4031, GEOG 4052, ANTH 4023, ANTH 4053, GEOG 4073, GEOG 4077; or 3) POLI 2051, POLI 2056, and three hours in a POLI course, at the 3000-level or above.

<sup>4</sup> - Area requirements III: Complete three hours in the field not chosen for Area Requirements I and II: (1) ECON 2000, ECON 2010, ECON 2030; or (2) GEOG 1001, GEOG 1003, GEOG 2050, GEOG 2051; or (3) POLI 2051, POLI 2056, POLI 2057.

# Interdisciplinary Studies (Interdepartmental Program) OFFICE 155 Hodges Hall

OFFICE	155 Hodges Ha
TELEPHONE	225-578-3141
FAX	225-578-6447

The Bachelor of Interdisciplinary Studies degree program is for the student whose professional goals and educational objectives are optimally satisfied by a focused curriculum of interdisciplinary studies.

The concentration in individualized studies link three undergraduate minors to create a thematic interdisciplinary major. All requirements for each undergraduate minor must be satisfied.

# Interdisciplinary Studies, B.I.S. Interdisciplinary Studies General Requirements

- No more than 24 hours in any one subject may be used toward this degree, unless minor area requirements dictate otherwise.
- No more than 30 hours of Independent and Distance Learning credit may be used toward this degree.
- No more than eight hours of kinesiology activity courses may be used toward this degree.
- No more than 12 hours of ROTC credit may be used toward this degree.
- At least 45 hours of credit at or above the 3000 level must be completed; of the 45 hours, at least 15 must be at the 4000 level.
- At least a 2.00 GPA on all work taken in the LSU System.
- At least a 2.00 GPA on all work taken.
- At least a 2.00 GPA in all minors.
- Enrollment in internships, independent study, and research courses must have prior dean's approval.
- Students are required to complete coursework from at least three different departments in both the humanities and social sciences areas.

# Specific Requirements

- Complete all requirements for the area of concentration.
- Complete all general education requirements.
- Complete elective courses to reach 120 hours.
- A student must earn three hours in one of the following: computer science, EXST 2000, ISDS 1100, LIS 2001, or a foreign language.
- Complete UNST 3900, a capstone course for seniors majoring in Interdisciplinary Studies currently enrolled in the College of Humanities & Social Sciences.

# Area of Concentration Individualized Studies CRITICAL REQUIREMENTS

#### SEMESTER 1: "C" or better in ENGL 1001.

SEMESTER 2: Gen. Ed. Analytical Reasoning (from mathematics).

SEMESTER 3: Gen. Ed. Social Sciences; Admission to the College.

SEMESTER 4: Gen. Ed. Humanities.

### SEMESTER 5: ENGL 2000.

Three undergraduate minors, as approved by the Director of the Interdisciplinary Studies Program. This

concentration allows students to craft a cohesive set of three minors aimed at preparing them for their individual career goals.

### Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- General Education course Analytical Reasoning (from mathematics) (3)
- General Education course Arts (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- Approved Elective (3)<sup>2</sup>
- Total Semester Hours: 15

#### Semester 2

**CRITICAL:** Gen. Ed. Analytical Reasoning (from mathematics).

Choose **one** from the following:

- Computer Science Course (3)
- EXST 2000 Introduction to Microcomputers (3)
- ISDS 1100 Introduction to Management Information Systems (3)
- LIS 2001 Introduction to Information Technologies (3)
- Foreign Language course (3)
- General Education course Analytical Reasoning (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Social Sciences (3)<sup>3</sup>
- Minor #1 Elective (3)

#### Total Semester Hours: 15

#### Semester 3

**CRITICAL:** Gen. Ed. Social Sciences; Admission to the College.

- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Humanities (3)<sup>4</sup>
- General Education course Social Sciences (2000-level) (3)<sup>3</sup>
- Minor #1 Elective (3)
- Minor #2 Elective (3)

Total Semester Hours: 15 Semester 4

# CRITICAL: Gen. Ed. Humanities.

- ENGL 2000 English Composition (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Humanities (3)<sup>4</sup>
- Approved Social Sciences Elective (3)<sup>3</sup>
- Minor #3 Elective (3)

Total Semester Hours: 15

# Semester 5

CRITICAL: ENGL 2000.

- General Education course Humanities (3)<sup>4</sup>
- Approved Social Sciences Elective (3)<sup>3</sup>
- Minor #1 Elective (3000-level or above) (3)
- Minor #2 Elective (3)
- Minor #3 Elective (3)

#### Total Semester Hours: 15 Semester 6

- Approved Social Sciences Elective (3)<sup>3</sup>
- Minor #1 Elective (3000-level or above (3)
- Minor #2 Elective (3000-level or above) (3)
- Minor #3 Elective (3000-level or above) (3)
- Approved Elective (3)<sup>2</sup>

### Total Semester Hours: 15 Semester 7

- UNST 3900 Interdisciplinarity (3)
- Approved Social Sciences Elective (3)<sup>3</sup>
- Minor #1 Elective (3)
- Minor #2 Elective (3000-level or above) (3)
- Minor #3 Elective (3000-level or above) (3)

Total Semester Hours: 15

### Semester 8

- Minor #2 Elective (3)
- Minor #3 Elective (3)
- Approved Electives (9)<sup>2</sup>

Total Semester Hours: 15 120 Total Sem. Hrs.

<sup>1</sup> - If two course sequence is taken in the physical sciences, the additional three hour course must be taken from the life sciences, and vice versa.

 $^2$  - At least 45 hours of credit at or above the 3000-level must be completed; of the 45 hours, at least 15 must be at the 4000-level.

<sup>3</sup> - General Education/Approved Social Sciences must cover at least three different departments from list.

<sup>4</sup> - General Education Humanities must cover at least one non-ENGL, non-General Education Arts department from list.

# **International Studies (Interdepartmental Program)**

OFFICE	153 Howe-Russell
TELEPHONE	225-578-7242
WEDGITE	1. 44

WEBSITE http://www.lsu.edu/international

The International Studies (I.S.) Program offers an interdisciplinary major intended to prepare students for careers in the global arena. An undergraduate minor in international studies is also available. See the section "Minor Field Requirements" in this chapter.

The degree is designed to equip graduates with critical skills, flexible thinking, and a cosmopolitan view of world issues, to enable them to work comfortably across linguistic, cultural, and disciplinary borders. To achieve this, the curriculum cuts across traditional departmental divisions, combining insights from different disciplines around a common regional or global concentration. Students are helped to undertake internships, encouraged to study abroad, and recommended to combine the I.S. major with a minor in a second field such as business, mass communication, political science, or engineering. International Studies majors are strongly encouraged to enroll in a study abroad program which can be arranged through the LSU Office of Academic Programs Abroad.

Considerable freedom is allowed in shaping the degree requirements to suit individual geographical and topical interests. However, the precise selection and sequencing of coursework should be planned well in advance, as soon as the major is declared, in consultation with the associate director.

The curriculum comprises the following five elements, which students must complete in the required sequence. For additional requirements for general education courses and approved electives, see "Degree Requirements for the College":

- *Core Curriculum (15 hours)* During the freshman and sophomore years, prospective majors must complete the preparatory, multidisciplinary core curriculum by taking one course from each of the following five disciplines: ANTH 1003 or ANTH 2051, ECON 2030 or ECON 2031, GEOG 1001 or GEOG 1003, HIST 1007, POLI 2053 or POLI 2057. These are the prerequisites for the gateway course.
- *Gateway Course (3 hours)* All majors must complete the junior-level, interdisciplinary gateway course, INTL 3001. This is a prerequisite for the senior-level capstone seminar.
- *Area of Concentration (21 hours)* Courses for the area of concentration should ideally be taken during the junior and senior years, and most of the requirements must be completed before admission to the senior capstone seminar. Students may choose from ten concentrations, which have either a regional or global focus. (See details below)
- *Foreign Language (hours vary)* Students must demonstrate competency (defined below for each region) in a language relevant to their regional area of concentration.
- Senior Capstone Course (3 hours)- The senior capstone seminar (INTL 4003) is intended primarily for graduating I.S. majors in their final semester. Prerequisites are INTL 3001 and nine hours of additional upper-level courses in area of concentration, all of which must be completed before admission to the seminar.

### **International Studies Minor**

The *minor in international studies* in the College of Humanities & Social Sciences is designed to provide students with a perspective on issues of global consequence, and permit them to focus on a particular region of the world. All students seeking a *minor in international studies* must complete the following three requirements:

 interdisciplinary core; 2) global or regional concentration; and 3) relevant foreign language.
 To graduate with a *minor in international studies*, students must complete 21 hours of coursework and demonstrate second-year competency in a foreign language as follows:

# 1) Interdisciplinary core (9 Sem. Hrs.)

Nine hours chosen from:

- ANTH 1003 Introduction to Cultural and Social Anthropology (3) or
- ANTH 2051 Introduction to World Ethnography (3)
- ECON 2030 Economic Principles (3)
- GEOG 1001 Human Geography: Americas and Europe (3) or
- GEOG 1003 Human Geography: Africa and Asia (3)
- HIST 1007 World History Since 1500 (3)
- POLI 2053 Introduction to Comparative Politics (3) or
- POLI 2057 Introduction to International Politics (3)
- REL 2027 Asian Religions (3) or
- REL 2029 Judaism, Christianity and Islam (3)

## 2) Regional or Global Concentrations (12 Sem. Hrs.):

12 hours chosen from one of the following Global and Regional concentrations.

## **Global Studies**

12 hours chosen from at least two different departments:

- ECON 4070 Economic Growth (3)
- ECON 4520 International Trade (3)
- ECON 4550 International Finance (3)
- ENGL 3080 Post-colonial Literature (3)
- ENVS 4010 Applied Ecology (3)
- FIN 3718 Multinational Managerial Finance (3)
- HIST 2023 The World Since 1960 (3)
- INTL 2000 Contemporary Global Issues (3)
- INTL 3002 Independent Study in International Studies (3)

- INTL 3099 Undergraduate Internship in International Studies (3)
- INTL 4100 Migration, Diasporas and Identity (3)
- POLI 4040 Special Topics in International Relations (3)
- POLI 4050 Globalization and Politics (3)
- POLI 4041 International Law (3)
- POLI 4042 International Organization (3)
- POLI 4046 International Political Economy (3)
- POLI 4060 Special Topics in Comparative Politics (3)
- POLI 4062 Comparative Political Economy (3)
- POLI 4064 Comparative Politics of Developing Areas (3)
- REL 2029 Judaism, Christianity and Islam (3)
- REL 3300 Women and Religion (3)
- REL 4031 Comparative Religions (3) or
- ANTH 4031 Comparative Religions (3)
- REL 4032 Religion, Gender and Society (3)
- REL 3092 Fundamentalisms and Religious Nationalism (3) or
- INTL 3092 Fundamentalisms and Religious Nationalism (3)
- SOCL 4551 Global Society (3)
- SOCL 4701 Population (3)
- WGS 2900 Gender, Race and Nation (3)

### Global Diplomacy

12 hours chosen from at least two different departments:

- ECON 4520 International Trade (3)
- ECON 4550 International Finance (3)
- ECON 4560 Central Banking and Monetary Policy (3)
- HIST 2023 The World Since 1960 (3)
- HIST 4028 The First World War (3)
- HIST 4049 The British Empire and Commonwealth (3)
- HIST 4064 Diplomatic History of the United States, 1914 to the Present (3)
- HIST 4066 Military History of the United States (3)
- HIST 4130 World War II (3)
- HIST 4140 The Vietnam War (3)
- POLI 4041 International Law (3)
- POLI 4042 International Organization (3)
- POLI 4043 American Foreign Policy (3)
- POLI 4044 The Contemporary International System (3)
- POLI 4046 International Political Economy (3)
- POLI 4047 Political Psychology in International Relations (3)
- POLI 4048 International Conflict and Cooperation (3)

- POLI 4062 Comparative Political Economy (3)
- POLI 4063 Comparative Political Institutions (3)
- POLI 4064 Comparative Politics of Developing Areas (3)
- POLI 4074 Politics of the European Union (3)

### **Environment and Development**

12 hours chosen from at least two different departments:

- ANTH 4086 Human-Environment Interactions (3)
- GEOG 2200 Hazards, Disasters and the Environment (3)
- ECON 4520 International Trade (3)
- ECON 4550 International Finance (3)
- ECON 4070 Economic Growth (3)
- ECON 4320 Environmental Economics (3)
- ECON 4325 Applied Resource Economics (3)
- EMS 1011 Environment and Technology: Perspective on Environmental Problems (3)
- EMS 3040 Applied Environmental Management (4)
- ENVS 1126 Introduction to Environmental Sciences (3)
- ENVS 4261 Energy and the Environment (3)
- GEOG 4014 Climatology (3)
- GEOG 4045 Environmental Remote Sensing (3)
- GEOG 3070 Environmental Conservation (3)
- GEOG 4078 Environment and Development (3)
- GEOG 4080 Historical Geography (3)
- GEOG 4086 Human-Environment Interactions (3)
- LA 2201 Landscape History I (3)
- LA 2401 Landscape Ecology (3)
- LA 3201 Landscape History II (3)
- OCS 4465 Coastal Zone Management (3)
- OCS 4550 Biological Oceanography (3)
- POLI 4062 Comparative Political Economy (3)
- POLI 4064 Comparative Politics of Developing Areas (3)
- RNR 1001 Natural Resource Conservation (3)
- RNR 2039 Introduction to Renewable Natural Resource Policy (3)
- RNR 4023 Marine Fisheries Resources (3)
- RNR 4107 Human Dimensions in Natural Resources (3)
- SOCL 4551 Global Society (3)

### **Global Cultures**

12 hours chosen from at least two different departments:

- AAAS 2000 Introduction to African & African American Studies (3)
- AAAS 2410 Black Popular Culture (3)
- AAAS 3024 African Diaspora Intellectual Thought (3)
- AAAS 4124 Studies in African Diaspora Religions (3) or

- REL 4124 Studies in African Diaspora Religions
   (3)
- ANTH 2050 World Archaeology (3)
- ANTH 3060 Introduction to Anthropological Linguistics (3)
- ANTH 4031 Comparative Religions (3) or
- REL 4031 Comparative Religions (3)
- ANTH 4470 Folklore of the African Diaspora (3)
- ARTH 4466 Contemporary Art (3)
- CPLT 2202 Introduction to Modern World Literature (3) or
- ENGL 2202 Introduction to Modern World Literature (3)
- ENGL 2673 Literature and Ethnicity (3)
- ENGL 3080 Post-colonial Literature (3)
- ENGL 4680 Studies in Post-colonial Literature & Culture (3)
- FREN 3076 Introduction to Francophone Cultures (3)
- FREN 3090 Francophone Texts and Contexts (3)
- FREN 4070 Literature of Africa and the Caribbean (3)
- GEOG 4079 Geography of Religion (3)
- HIST 4049 The British Empire and Commonwealth (3)
- INTL 4100 Migration, Diasporas and Identity (3)
- REL 2029 Judaism, Christianity and Islam (3)
- REL 3092 Fundamentalisms and Religious Nationalism (3)
- SOCL 4551 Global Society (3)
- SPAN 4100 Women Writers in the Hispanic World (3)
- THTR 3122 Theatre History and Literature III: 1875 to the Present (3)
- THTR 4220 Drama of Africa and African Diaspora (3)
- WGS 2900 Gender, Race and Nation (3)

### Africa

12 hours chosen from at least two different departments:

- AAAS 2050 Contemporary Africa (3)
- AAAS 3120 Topics in History of Africa and the African Diaspora (3)
- AAAS 3122 Topics in Pre-Colonial Africa (3)
- ANTH 4051 Africa (3)
- ANTH 4470 Folklore of the African Diaspora (3)
- ENGL 4322 Studies in African Literature (3)
- FREN 4070 Literature of Africa and the Caribbean (3)
- HIST 4084 West Africa to 1800 (3)
- HIST 4085 West Africa from 1800 (3)
- INTL 3991 Study Abroad in Africa (1-6)

- POLI 4064 Comparative Politics of Developing Areas (3)
- POLI 4078 African Government and Politics (3)
- SOCL 4551 Global Society (3)
- THTR 4220 Drama of Africa and African Diaspora (3) or
- ENGL 4220 Drama of Africa and African Diaspora (3)

### Middle East

12 hours chosen from at least two different departments:

- ARAB 2001 Arabic Culture (3)
- ARAB 4915 Independent Work (1-3)
- ARTH 4449 Islamic Art and Architecture (3)
- ARTH 2401 Art of the Ancient Near East and Egypt (3)
- GEOG 4051 North Africa and the Middle East (3) or
- INTL 4051 North Africa and the Middle East (3)
- HIST 4096 The Modern Middle East (3) or
- REL 4096 The Modern Middle East (3)
- INTL 3992 Study Abroad in the Middle East (1-6)
- INTL 4033 Geography of Central Asia and Afghanistan (3)
- POLI 4059 International Politics of the Middle East (3)
- POLI 4061 Comparative Politics of the Middle East (3)
- REL 2029 Judaism, Christianity and Islam (3)
- REL 3100 Judaism (3)
- REL 3786 The Religion of Islam (3) or
- INTL 3786 Religion of Islam (3)
- REL 3092 Fundamentalisms and Religious Nationalism (3)
- SOCL 4551 Global Society (3)

#### Asia

12 hours chosen from at least two different departments:

- ARTH 2411 Survey of Asian Art (3)
- ARTH 4441 Chinese Painting (3)
- ARTH 4442 Japanese Art (3)
- ARTH 4443 Indian Art (3)
- CHIN 2070 Chinese Cinema (3)
- CHIN 3101 Advanced Chinese (3)
- CHIN 3102 Advanced Chinese (3)
- CHIN 3801 Traditional East Asian Literature (3)
- GEOG 4037 Geography of China (3)
- HIST 2096 East Asian Civilization Since 1800 (3)
- HIST 4078 Asian-American History (3)
- HIST 4091 China to 1600 (3)

- HIST 4092 China since 1600 (3)
- HIST 4093 Pre-Modern Japan (3)
- HIST 4094 Modern Japan (3)
- HIST 4097 History of South Asia (3)
- HIST 4191 Religions of China and Japan (3) or
- REL 4191 Religions of China and Japan (3)
- INTL 3993 Study Abroad in Asia (1-6)
- INTL 4033 Geography of Central Asia and Afghanistan (3) or
- GEOG 4033 Geography of Central Asia and Afghanistan (3)
- INTL 4002 South Asian Society, Polity and Culture (3) or
- ANTH 4002 South Asian Society, Polity and Culture (3) or
- GEOG 4002 South Asian Society, Polity and Culture (3) or
- REL 4001 South Asian Society, Polity and Culture (3)
- POLI 4067 The Politics of Asia (3)
- POLI 4079 State, Society and Citizenship in Contemporary China (3)
- REL 2027 Asian Religions (3)
- REL 4600 Hinduism (3)
- REL 4800 Buddhism (3)

#### Europe

12 hours chosen from at least two different departments:

- ARCH 2008 History of Architecture II (3)
- ARTH 4422 History of Modern Design (3)
- ARTH 4450 19th Century European Painting (3)
- ARTH 4451 Early 20th Century European Art (3)
- ENGL 3022 British Literature II: Romantics, Victorians and Moderns (3)
- ENGL 4062 Studies in the Victorian Age (3)
- FREN 3071 Survey of French Literature (3)
- FREN 3072 Survey of French Literature (3)
- FREN 3080 French Culture and Civilization (3)
- FREN 4031 The French Film (3)
- FREN 4040 French Literature of the 19th Century (3)
- FREN 4050 French Literature of the 20th Century (3)
- FREN 4051 French for Business (3)
- GERM 3082 Survey of German Literature and Culture: 1700-1830 (3)
- GERM 3083 Survey of German Literature and Culture: 1830-1890 (3)
- GERM 3084 Survey of German Literature and Culture: 1890-to the Present (3)
- GERM 3091 Special Topics in German Literature in Translation (3)

- GERM 4044 Special Topics in 20th Century German Literature and Culture (3)
- GERM 4045 Special Topics in Contemporary German Literature and Culture (3)
- GERM 4046 German Film (3)
- HIST 2075 German Civilization (3) or
- GERM 2075 German Civilization (3)
- HIST 2022 Modern Europe (3)
- HIST 4016 19th Century Europe (3)
- HIST 4017 20th Century Europe (3)
- HIST 4022 France since 1770 (3)
- HIST 4023 Spain since 1469 (3)
- HIST 4026 20th Century Germany (3)
- HIST 4028 The First World War (3)
- HIST 4030 Eastern Europe: 1914-Present (3)
- HIST 4032 The Balkans: 1879-Present (3)
- HIST 4046 19th Century Britain (3)
- HIST 4047 20th Century Britain (3)
- HIST 4048 Modern Irish History: 1600-Present (3)
- HIST 4049 The British Empire and Commonwealth (3)
- HIST 4112 Modern European Intellectual History: the Enlightenment to 1850 (3)
- HIST 4113 Modern European Intellectual History Since 1850 (3)
- HIST 4130 World War II (3)
- INTL 3994 Study Abroad in Europe (1-6)
- ITAL 3001 Italian Culture and Civilization (3)
- ITAL 3072 Survey of Italian Literature (3)
- PHIL 3001 Existentialism (3)
- PHIL 3003 French Existentialism (3)
- PHIL 3090 Friedrich Nietzsche (3)
- PHIL 4003 Contemporary French Philosophy (3)
- PHIL 4939 Kierkegaard (3)
- POLI 4070 Russian Politics and Government (3)
- POLI 4072 Politics and Government of East Central Europe (3)
- POLI 4074 Politics of the European Union (3)
- POLI 4075 Politics of Western Europe (3)
- POLI 4076 The Politics of France and Francophone Areas (3)
- REL 2120 The Holocaust (3)
- SPAN 3073 Advanced Readings on Spanish Civilization (3)
- SPAN 4063 Spanish Literature from 1898 to 1936 (3)
- SPAN 4064 Spanish Literature Since 1936 (3)
- SPAN 4201 Cinema in Spanish (3)

### Latin America

12 hours chosen from at least two different departments:

• AAAS 4323 Studies in Caribbean Literature (3) or

- ENGL 4323 Studies in Caribbean Literature (3)
- ANTH 4023 Latin American Cultures (3)
- ARTH 4467 Latin American Art (3)
- GEOG 4031 Latin America and the Caribbean (3)
- HIST 2085 Colonial Latin America (3)
- HIST 4081 The Caribbean: 1492-1830 (3)
- HIST 4083 Mexico: The National Period (3)
- INTL 3995 Study Abroad in Latin America (1-6)
- POLI 4065 Latin American Governments and Politics (3)
- SPAN 3043 Introduction to Latin American Literature I (3)
- SPAN 3044 Introduction to Latin American Literature II (3)
- SPAN 3074 Advanced Readings on Hispanic-American Civilization (3)
- SPAN 4144 Latin American Literature: 1492-1810 (3)
- SPAN 4145 Latin American Literature: 1810-1915 (3)
- SPAN 4146 Latin American Literature: 1915-1960 (3)
- SPAN 4147 Latin American Literature: 1960-Present (3)
- SPAN 4201 Cinema in Spanish (3)

## 3) Foreign Languages (14-16 Sem. Hrs.):

All minors in International Studies must attain second year proficiency in a foreign language. Students selecting a regional concentration must attain proficiency in a language relevant to their region as follows:

## Africa

• FREN 2102 Intermediate French (3)

### Middle East

• ARAB 2102 Intermediate Arabic (3)

## Asia

• CHIN 2002 Intermediate Mandarin Chinese (4)

## Europe

- FREN 2102 Intermediate French (3) or
- GERM 2102 Intermediate German (3) or
- ITAL 2102 Intermediate Italian (3) or
- SPAN 2102 Intermediate Spanish (3)

### Latin America

• SPAN 2102 Intermediate Spanish (3)

## International Studies, B.A. Regional Areas of Concentration

All students majoring in international studies must complete 15 hours in a primary area of concentration, and six hours in a secondary area of concentration. At least nine hours in the primary concentration must be taken at the 3000 level or above. At least three hours in the secondary concentration must be taken at the 3000 level or above. Areas of concentration in International Studies are classified as either regional or global. The regional areas of concentration are Africa, Middle East, Asia, Europe, Latin America, or Russian and Central Asia- SUSPENDED. The global areas of concentration are Global Studies, Global Diplomacy, Environment and Development, or Global Cultures. Students must select one regional and one global area of concentration. Thus if a regional area of concentration is chosen as the primary area of concentration, then the secondary area of concentration must be a global area, and vice versa. Courses in the primary concentration must be taken in at least two different departments.

Students must meet language competency standards in a language appropriate to their regional area of concentration. Native speakers of a language relevant to their regional concentration can petition the program director for an exemption from this language requirement. The student's proficiency in reading, writing, and speaking the language must be verified by someone knowledgeable in that language. The Associate Director will select an appropriate individual to conduct an assessment of the student's language proficiency. These students are still required to meet the four semester college level foreign language requirement as described in the General Catalog. Note: The following course listings are not exhaustive. Special topics classes are not included, but, if relevant, may be counted towards a concentration by arrangement with the Associate Director. As many of the listed courses are offered either infrequently or in alternate years, students are advised that they should check availability with departments and plan their course work schedule well in advance.

Consult "Degree Requirements of the College" in this section of the catalog for specific instructions regarding approved electives and foreign language requirements. Consult "General Education" section of the catalog for the general education requirements.

Students must complete 15 hours for a primary area of concentration or six hours for the secondary area of concentration in one of the following regional areas. For additional information, contact the Associate Director, 153 Howe-Russell Hall, 225-578-7242.

## Africa

### **CRITICAL REQUIREMENTS**

SEMESTER 1: ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057 SEMESTER 2: ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST

#### 1007 or POLI 2053/POLI 2057

SEMESTER 3: ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057; First Course in Arabic or French Foreign Language Sequence; Admission to the College.

SEMESTER 4: ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057; Second Course in Arabic or French Foreign Language Sequence.

SEMESTER 5: ENGL 2000;INTL 3001; Third Course in Arabic or French Foreign Language Sequence.

### Semester 1

**CRITICAL:** ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057.

• ENGL 1001 English Composition (3)

#### INTL Core Course (3)

- Choose **one** course from the following:
- ANTH 1003 Introduction to Cultural and Social Anthropology (3)
- ANTH 2051 Introduction to World Ethnography (3)
- ECON 2030 Economic Principles (3)
- ECON 2031 HONORS: Economic Principles (3)
- GEOG 1001 Human Geography: Americas and Europe (3)
- GEOG 1003 Human Geography: Africa and Asia (3)
- HIST 1007 World History Since 1500 (3)
- POLI 2053 Introduction to Comparative Politics (3)
- POLI 2057 Introduction to International Politics (3)
- First Course in Foreign Language Sequence (4)<sup>1</sup>
- General Education course Anlaytical Reasoning (from mathematics) (3)

• General Education course - Natural Sciences (3)<sup>2</sup>

## Total Semester Hours: 16

### Semester 2

**CRITICAL:** ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057.

#### INTL Core Courses (6)

- Select **two** courses from the following:
- ANTH 1003 Introduction to Cultural and Social Anthropology (3)
- ANTH 2051 Introduction to World Ethnography (3)
- ECON 2030 Economic Principles (3)
- ECON 2031 HONORS: Economic Principles (3)

- GEOG 1001 Human Geography: Americas and Europe (3)
- GEOG 1003 Human Geography: Africa and Asia (3)
- HIST 1007 World History Since 1500 (3)
- POLI 2053 Introduction to Comparative Politics (3)
- POLI 2057 Introduction to International Politics (3)
- Second Course in Foreign Language Sequence (4)<sup>1</sup>
- General Education course Natural Sciences (3)<sup>2</sup>
- Approved Elective (1)

# Total Semester Hours: 14

## Semester 3

**CRITICAL:** ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057; First Course in Arabic or French Foreign Language Sequence; Admission to the College.

#### INTL Core Course (3)

- Select **one** course from the following:
- ANTH 1003 Introduction to Cultural and Social Anthropology (3)
- ANTH 2051 Introduction to World Ethnography (3)
- ECON 2030 Economic Principles (3)
- ECON 2031 HONORS: Economic Principles (3)
- GEOG 1001 Human Geography: Americas and Europe (3)
- GEOG 1003 Human Geography: Africa and Asia (3)
- HIST 1007 World History Since 1500 (3)
- POLI 2053 Introduction to Comparative Politics (3)
- POLI 2057 Introduction to International Politics (3)
- Third Course in Foreign Language Sequence (3)<sup>1</sup>
- General Education course Humanities (3)
- General Education course Natural Sciences (3)<sup>2</sup>
  Approved Elective (3)

### Total Semester Hours: 15 Semester 4

**CRITICAL:** ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057; Second Course in Arabic or French Foreign Language Sequence.

INTL Core Course (3)

- Choose **one** course from the following:
- ANTH 1003 Introduction to Cultural and Social Anthropology (3)

- ANTH 2051 Introduction to World Ethnography (3)
- ECON 2030 Economic Principles (3)
- ECON 2031 HONORS: Economic Principles (3)
- GEOG 1001 Human Geography: Americas and Europe (3)
- GEOG 1003 Human Geography: Africa and Asia (3)
- HIST 1007 World History Since 1500 (3)
- POLI 2053 Introduction to Comparative Politics (3)
- POLI 2057 Introduction to International Politics (3)
- ENGL 2000 English Composition (3)
- INTL 3001 Gateway to International Studies (3)
- Fourth Course in Foreign Language Sequence (3)<sup>1</sup>
- General Education course Analytical Reasoning (3)

### Total Semester Hours: 15

### Semester 5

**CRITICAL:** ENGL 2000;INTL 3001; Third Course in Arabic or French Foreign Language Sequence.

- Fifth Course in Foreign Language Sequence (3)<sup>1</sup>
- General Education course Arts (3)
- International Studies Primary Area of Concentration Course (3)<sup>3</sup>
- Approved Electives (6)

### Total Semester Hours: 15 Semester 6

- International Studies Primary Area of Concentration Courses (6)<sup>3</sup>
- Sixth Course in Foreign Language Sequence (3)<sup>1</sup>
- Approved Electives (6)

### Total Semester Hours: 15 Semester 7

- International Studies Primary Area of Concentration Courses (6)<sup>3</sup>
- General Education course Humanities (3)
- Approved Electives (6)

## Total Semester Hours: 15

### Semester 8

- INTL 4003 International Studies Senior Seminar (3)
- International Studies Secondary Area of Concentration Courses (6)<sup>4</sup>
- Approved Electives (6)

### Total Semester Hours: 15

### 120 Total Sem. Hrs.

<sup>1</sup> - Select from ARAB or FREN:

ARAB 1101, ARAB 1102, ARAB 2101, ARAB 2102,

#### ARAB 3101, ARAB 3102.

# FREN 1001, FREN 1002, FREN 2101, FREN 2102, FREN 2155, and FREN 3060.

<sup>2</sup> - If two course sequence is taken in the physical sciences, the additional three hour course must be taken from the life sciences, and vice versa.

<sup>3</sup> - Select fifteen hours from the following (must be taken in at least two different departments; at least nine hours must be at or above the 3000-level):

AAAS 2050, AAAS 3120, AAAS 3122; ANTH 4051, ANTH 4470; ENGL 4322; FREN 4070; HIST 4084, HIST 4085, INTL 3991, POLI 4064, POLI 4078; SOCL 4551; THTR 4220/ENGL 4220.

<sup>4</sup> - Select six hours from one of the following secondary areas of concentration (at least 3 hours must be at or above the 3000-level):

#### **Environment and Development**

ANTH 4086; GEOG 2200; ECON 4520, ECON 4550, ECON 4070, ECON 4320, ECON 4325; EMS 1011, EMS 3040; ENVS 1126, ENVS 4261; GEOG 4014, GEOG 4045, GEOG 3070, GEOG 4078, GEOG 4080, GEOG 4086; LA 2201, LA 2401, LA 3201; OCS 4465, OCS 4550; POLI 4062, POLI 4064; RNR 1001, RNR 2039, RNR 4023, RNR 4107, SOCL 4551.

#### **Global Cultures**

AAAS 2000, AAAS 2410, AAAS 3024, AAAS 4124/REL 4124, ANTH 2050, ANTH 3060, ANTH 4031/REL 4031, ANTH 4470; ARTH 4466; CPLT 2202/ENGL 2202; ENGL 2673, ENGL 3080, ENGL 4680; FREN 3076, FREN 3090, FREN 4070; GEOG 4079; HIST 4049; INTL 4100, REL 2029, REL 3092; SOCL 4551; SPAN 4100; THTR 3122, THTR 4220, WGS 2900.

#### **Global Diplomacy**

ECON 4520, ECON 4550, ECON 4560; HIST 2023, HIST 4028, HIST 4049, HIST 4064, HIST 4066, HIST 4130, HIST 4140; POLI 4041, POLI 4042, POLI 4043, POLI 4044, POLI 4046, POLI 4047, POLI 4048, POLI 4062, POLI 4063, POLI 4064, POLI 4074.

#### **Global Studies**

ANTH 4031; ECON 4070, ECON 4520, ECON 4550; ENGL 3080; ENVS 4010; FIN 3718; HIST 2023; INTL 2000, INTL 3002, INTL 3099, INTL 4100; POLI 4040, POLI 4050, POLI 4041, POLI 4042, POLI 4046, POLI 4060, POLI 4062, POLI 4064; REL 2029, REL 3300, REL 4031, REL 4032; REL 3092/INTL 3092; SOCL 4551, SOCL 4701; WGS 2900.

### Asia

#### **CRITICAL REQUIREMENTS**

SEMESTER 1: ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057

SEMESTER 2: ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057

SEMESTER 3: ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057; First Course in Chinese Foreign Language Sequence; Admission to the College. SEMESTER 4: ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057; Second Course in Chinese Foreign Language Sequence. SEMESTER 5: ENGL 2000;INTL 3001; Third course in Chinese Foreign Language Sequence.

#### Semester 1

**CRITICAL:** ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057

• ENGL 1001 English Composition (3)

INTL Core Course (3)

- Select **one** course from the following:
- ANTH 1003 Introduction to Cultural and Social Anthropology (3)
- ANTH 2051 Introduction to World Ethnography (3)
- ECON 2030 Economic Principles (3)
- ECON 2031 HONORS: Economic Principles (3)
- GEOG 1001 Human Geography: Americas and Europe (3)
- GEOG 1003 Human Geography: Africa and Asia (3)
- HIST 1007 World History Since 1500 (3)
- POLI 2053 Introduction to Comparative Politics (3)
- POLI 2057 Introduction to International Politics (3)
- First Course in Foreign Language Sequence (4)<sup>1</sup>
- General Education course Analytical Reasoning (from mathematics) (3)
- General Education course Natural Sciences (3)<sup>2</sup>

## Total Semester Hours: 16

### Semester 2

**CRITICAL:** ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057

#### INTL Core Courses (6)

- Select **two** courses from the following:
- ANTH 1003 Introduction to Cultural and Social Anthropology (3)
- ANTH 2051 Introduction to World Ethnography (3)
- ECON 2030 Economic Principles (3)
- ECON 2031 HONORS: Economic Principles (3)
- GEOG 1001 Human Geography: Americas and Europe (3)
- GEOG 1003 Human Geography: Africa and Asia (3)
- HIST 1007 World History Since 1500 (3)
- POLI 2053 Introduction to Comparative Politics (3)

- POLI 2057 Introduction to International Politics (3)
- Second Course in Foreign Language Sequence (4)<sup>1</sup>
- General Education course Natural Sciences (3)<sup>2</sup>

### Total Semester Hours: 13

### Semester 3

**CRITICAL:** ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057; First Course in Chinese Foreign Language Sequence; Admission to the College.

INTL Core Course (3)

- Select **one** course from the following:
- ANTH 1003 Introduction to Cultural and Social Anthropology (3)
- ANTH 2051 Introduction to World Ethnography (3)
- ECON 2030 Economic Principles (3)
- ECON 2031 HONORS: Economic Principles (3)
- GEOG 1001 Human Geography: Americas and Europe (3)
- GEOG 1003 Human Geography: Africa and Asia (3)
- HIST 1007 World History Since 1500 (3)
- POLI 2053 Introduction to Comparative Politics (3)
- POLI 2057 Introduction to International Politics (3)
- Third Course in Foreign Language Sequence (4)<sup>1</sup>
- General Education course Humanities (3)
- General Education course Natural Sciences (3)<sup>2</sup>
- Approved Elective (3)

#### Total Semester Hours: 16

### Semester 4

**CRITICAL:** ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057; Second Course in Chinese Foreign Language Sequence.

#### INTL Core Course (3)

- Select **one** course from the following:
- ANTH 1003 Introduction to Cultural and Social Anthropology (3)
- ANTH 2051 Introduction to World Ethnography (3)
- ECON 2030 Economic Principles (3)
- ECON 2031 HONORS: Economic Principles (3)
- GEOG 1001 Human Geography: Americas and Europe (3)
- GEOG 1003 Human Geography: Africa and Asia (3)
- HIST 1007 World History Since 1500 (3)

- POLI 2053 Introduction to Comparative Politics (3)
- POLI 2057 Introduction to International Politics (3)
- ENGL 2000 English Composition (3)
- INTL 3001 Gateway to International Studies (3)
- Fourth Course in Foreign Language Sequence (4)<sup>1</sup>
- General Education course Analytical Reasoning (3)

## Total Semester Hours: 16

### Semester 5

**CRITICAL:** ENGL 2000;INTL 3001; Third course in Chinese Foreign Language Sequence.

- Fifth Course in Foreign Language Sequence (3)<sup>1</sup>
- General Education course Arts (3)
- International Studies Primary Area of Concentration Course (3)<sup>3</sup>
- Approved Electives (6)

# Total Semester Hours: 15

## Semester 6

- International Studies Primary Area of Concentration Courses (6)<sup>3</sup>
- Sixth Course in Foreign Language Sequence (3)<sup>1</sup>
- Approved Electives (6)

### Total Semester Hours: 15 Semester 7

- International Studies Primary Area of Concentration Courses (6)<sup>3</sup>
- General Education course Humanities (3)
- Approved Electives (5)

### Total Semester Hours: 14 Semester 8

- INTL 4003 International Studies Senior Seminar (3)
- International Studies Secondary Area of Concentration Courses (6)<sup>4</sup>
- Approved Electives (6)

### **Total Semester Hours: 15**

### 120 Total Sem. Hrs.

#### <sup>1</sup> - Select from CHIN:

CHIN 1101, CHIN 1102, CHIN 2001, CHIN 2002, CHIN 3101, CHIN 3102.

<sup>2</sup> - If two course sequence is taken in the physical sciences, the additional three hour course must be taken from the life sciences, and vice versa.

<sup>3</sup> - Select fifteen hours from the following (must be taken in at least two different departments; at least nine hours must be at or above the 3000-level):

ARTH 2411, ARTH 4441, ARTH 4442, ARTH 4443; CHIN 2070, CHIN 3101, CHIN 3102, CHIN 3801, GEOG 4037; HIST 2096, HIST 4078, HIST 4091, HIST 4092, HIST 4093, HIST 4094, HIST 4097; HIST 4191/REL 4191; INTL 3993; INTL 4002/ANTH 4002/GEOG 4002/REL 4001, INTL 4033/GEOG 4033; POLI 4067, POLI 4079; REL 2027, REL 4600, REL 4800.

<sup>4</sup> - Select six hours from one of the following secondary areas of concentration (at least 3 hours must be at or above the 3000-level):

#### **Environment and Development**

ANTH 4086; GEOG 2200, ECON 4520, ECON 4550, ECON 4070, ECON 4320, ECON 4325; EMS 1011, EMS 3040; ENVS 1126, ENVS 4261; GEOG 4014, GEOG 4045, GEOG 3070, GEOG 4078, GEOG 4080, GEOG 4086; LA 2201, LA 2401, LA 3201; OCS 4465, OCS 4550; POLI 4062, POLI 4064; RNR 1001, RNR 2039, RNR 4023, RNR 4107, SOCL 4551.

#### **Global Cultures**

AAAS 2000, AAAS 2410, AAAS 3024, AAAS 4124/REL 4124; ANTH 2050, ANTH 3060, ANTH 4031/REL 4031, ANTH 4470; ARTH 4466; CPLT 2202/ENGL 2202; ENGL 2673, ENGL 3080, ENGL 4680; FREN 3076, FREN 3090, FREN 4070; GEOG 4079; HIST 4049; INTL 4100, REL 2029, REL 3092; SOCL 4551; SPAN 4100; THTR 3122, THTR 4220, WGS 2900.

#### **Global Diplomacy**

ECON 4520, ECON 4550, ECON 4560; HIST 2023, HIST 4028, HIST 4049, HIST 4064, HIST 4066, HIST 4130, HIST 4140; POLI 4041, POLI 4042, POLI 4043, POLI 4044, POLI 4046, POLI 4047, POLI 4048, POLI 4062, POLI 4063, POLI 4064, POLI 4074.

#### **Global Studies**

ANTH 4031; ECON 4070, ECON 4520, ECON 4550; ENGL 3080; ENVS 4010; FIN 3718; HIST 2023; INTL 2000, INTL 3002, INTL 3099, INTL 4100; POLI 4040, POLI 4050, POLI 4041, POLI 4042, POLI 4046, POLI 4060, POLI 4062, POLI 4064; REL 2029, REL 3300, REL 4031, REL 4032; REL 3092/INTL 3092; SOCL 4551, SOCL 4701; WGS 2900.

### Europe

### **CRITICAL REQUIREMENTS**

SEMESTER 1: ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057

SEMESTER 2: ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057

SEMESTER 3: ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057; First Course in French, German, Italian, or Spanish Foreign Language Sequence; Admission to the College.

SEMESTER 4: ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057; Second Course in French, German, Italian, or Spanish Foreign Language Sequence. SEMESTER 5: ENGL 2000;INTL 3001; Third course in French, German, Italian, or Spanish Foreign Language Sequence.

### Semester 1

**CRITICAL:** ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057.

• ENGL 1001 English Composition (3)

#### INTL Core Course (3)

- Select **one** course from the following:
- ANTH 1003 Introduction to Cultural and Social Anthropology (3)
- ANTH 2051 Introduction to World Ethnography (3)
- ECON 2030 Economic Principles (3)
- ECON 2031 HONORS: Economic Principles (3)
- GEOG 1001 Human Geography: Americas and Europe (3)
- GEOG 1003 Human Geography: Africa and Asia (3)
- HIST 1007 World History Since 1500 (3)
- POLI 2053 Introduction to Comparative Politics (3)
- POLI 2057 Introduction to International Politics (3)
- First Course in Foreign Language Sequence (4)<sup>1</sup>
- General Education course Analytical Reasoning (from mathematics) (3)
- General Education course Natural Sciences (3)<sup>2</sup>

#### **Total Semester Hours: 16**

#### Semester 2

**CRITICAL:** ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057.

#### INTL Core Courses (6)

- Select **two** courses from the following:
- ANTH 1003 Introduction to Cultural and Social Anthropology (3)
- ANTH 2051 Introduction to World Ethnography (3)
- ECON 2030 Economic Principles (3)
- ECON 2031 HONORS: Economic Principles (3)
- GEOG 1001 Human Geography: Americas and Europe (3)
- GEOG 1003 Human Geography: Africa and Asia (3)
- HIST 1007 World History Since 1500 (3)
- POLI 2053 Introduction to Comparative Politics (3)
- POLI 2057 Introduction to International Politics (3)
- Second Course in Foreign Language Sequence (4)<sup>1</sup>

• General Education course - Natural Sciences (3)<sup>2</sup> Total Semester Hours: 13

### Semester 3

**CRITICAL:** ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057; First Course in French, German, Italian, or Spanish Foreign Language Sequence; Admission to the College.

INTL Core Course (3)

- Select **one** course from the following:
- ANTH 1003 Introduction to Cultural and Social Anthropology (3)
- ANTH 2051 Introduction to World Ethnography (3)
- ECON 2030 Economic Principles (3)
- ECON 2031 HONORS: Economic Principles (3)
- GEOG 1001 Human Geography: Americas and Europe (3)
- GEOG 1003 Human Geography: Africa and Asia (3)
- HIST 1007 World History Since 1500 (3)
- POLI 2053 Introduction to Comparative Politics (3)
- POLI 2057 Introduction to International Politics (3)
- Third Course in Foreign Language Sequence (3)<sup>1</sup>
- General Education course Humanities (3)
- General Education course Natural Sciences (3)<sup>2</sup>
- Approved Electives (5)

## Total Semester Hours: 17

### Semester 4

**CRITICAL:** ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057; Second Course in French, German, Italian, or Spanish Foreign Language Sequence.

#### INTL Core Course (3)

- Select **one** course from the following:
- ANTH 1003 Introduction to Cultural and Social Anthropology (3)
- ANTH 2051 Introduction to World Ethnography (3)
- ECON 2030 Economic Principles (3)
- ECON 2031 HONORS: Economic Principles (3)
- GEOG 1001 Human Geography: Americas and Europe (3)
- GEOG 1003 Human Geography: Africa and Asia (3)
- HIST 1007 World History Since 1500 (3)
- POLI 2053 Introduction to Comparative Politics (3)
- POLI 2057 Introduction to International Politics (3)
- ENGL 2000 English Composition (3)

- INTL 3001 Gateway to International Studies (3)
- Fourth Course in Foreign Language Sequence (3)<sup>1</sup>
- General Education course Analytical Reasoning (3)

## Total Semester Hours: 15

### Semester 5

**CRITICAL:** ENGL 2000;INTL 3001; Third course in French, German, Italian, or Spanish Foreign Language Sequence.

- Fifth Course in Foreign Language Sequence (3)<sup>1</sup>
- General Education course Arts (3)
- International Studies Primary Area of Concentration Course (3)<sup>3</sup>
- Approved Electives (6)

## Total Semester Hours: 15

### Semester 6

- International Studies Primary Area of Concentration Courses (6)<sup>3</sup>
- Sixth Course in Foreign Language Sequence (3)<sup>1</sup>
- Approved Electives (6)

### Total Semester Hours: 15 Semester 7

- International Studies Primary Area of Concentration Courses (6)<sup>3</sup>
- General Education course Humanities (3)
- Approved Electives (5)

## Total Semester Hours: 14

### Semester 8

- INTL 4003 International Studies Senior Seminar (3)
- International Studies Secondary Area of Concentration Courses (6)<sup>4</sup>
- Approved Electives (6)
- Total Semester Hours: 15

### 120 Total Sem. Hrs.

<sup>1</sup> - Select from FREN, GERM, ITAL, OR SPAN: FREN 1001, FREN 1002, FREN 2101, FREN 2102, FREN 2155, and FREN 3060.

GERM 1101, GERM 1102, GERM 2101, GERM 2102, GERM 2155, and GERM 3060 or GERM 3061 or GERM 3082 or GERM 3083 or GERM 3084 or GERM 4031 or GERM 4043 or GERM 4044 or GERM 4045. ITAL 1001, ITAL 1002, ITAL 2101, ITAL 2102, ITAL 2155, and ITAL 3058 or ITAL 3071 or ITAL 3072 or ITAL 4051 or ITAL 4100.

SPAN 1101, SPAN 1102 or SPAN 1152, SPAN 2101, SPAN 2102, SPAN 2155, and one from SPAN 2156, SPAN 3010, SPAN 3043, SPAN 3044, SPAN 3070, SPAN 3072, SPAN 3073, SPAN 3074, SPAN 3980, SPAN 4063, SPAN 4064, SPAN 4100, SPAN 4145, SPAN 4146, SPAN 4147, SPAN 4201, SPAN 4400. <sup>2</sup> - If two course sequence is taken in the physical sciences, the additional three hour course must be taken from the life sciences, and vice versa.

<sup>3</sup> - Select fifteen hours from the following (at least 9 hours must be at or above the 3000-level):

ARCH 2008; ARTH 4422, ARTH 4450, ARTH 4451; ENGL 3022, ENGL 4062; FREN 3071, FREN 3072, FREN 3080, FREN 4031, FREN 4040, FREN 4050, FREN 4051; GERM 2075, GERM 3082, GERM 3083, GERM 3084, GERM 3091, GERM 4044, GERM 4045, GERM 4046; HIST 2022, HIST 4016, HIST 4017, HIST 4022, HIST 4023, HIST 4026, HIST 4028, HIST 4030, HIST 4032, HIST 4046, HIST 4047, HIST 4048, HIST 4049, HIST 4112, HIST 4113, HIST 4130; INTL 3994; ITAL 3001, ITAL 3072; PHIL 3001, PHIL 3003, PHIL 3090, PHIL 4003, POLI 4070, POLI 4072, POLI 4074, POLI 4075, POLI 4076; SPAN 3073, SPAN 4064, SPAN 4201. <sup>4</sup> - Select six hours from one of the following secondary areas of concentration (at least 3 hours must be at or above the 3000-level):

#### **Environment and Development**

ANTH 4086; GEOG 2200, ECON 4520, ECON 4550, ECON 4070, ECON 4320, ECON 4325; EMS 1011, EMS 3040; ENVS 1126, ENVS 4261; GEOG 4014, GEOG 4045, GEOG 3070, GEOG 4078, GEOG 4080, GEOG 4086; LA 2201, LA 2401, LA 3201; OCS 4465, OCS 4550; POLI 4062, POLI 4064; RNR 1001, RNR 2039, RNR 4023, RNR 4107, SOCL 4551.

#### **Global Cultures**

AAAS 2000, AAAS 2410, AAAS 3024, AAAS 4124/REL 4124; ANTH 2050, ANTH 3060, ANTH 4031/REL 4031, ANTH 4470; ARTH 4466; CPLT 2202/ENGL 2202; ENGL 2673, ENGL 3080, ENGL 4680; FREN 3076, FREN 3090, FREN 4070; GEOG 4079; HIST 4049; INTL 4100, REL 2029, REL 3092; SOCL 4551; SPAN 4100; THTR 3122, THTR 4220, WGS 2900.

#### **Global Diplomacy**

ECON 4520, ECON 4550, ECON 4560; HIST 2023, HIST 4028, HIST 4049, HIST 4064, HIST 4066, HIST 4130, HIST 4140; POLI 4041, POLI 4042, POLI 4043, POLI 4044, POLI 4046, POLI 4047, POLI 4048, POLI 4062, POLI 4063, POLI 4064, POLI 4074.

#### **Global Studies**

ANTH 4031; ECON 4070, ECON 4520, ECON 4550; ENGL 3080; ENVS 4010; FIN 3718; HIST 2023; INTL 2000, INTL 3002, INTL 3099, INTL 4100; POLI 4040, POLI 4050, POLI 4041, POLI 4042, POLI 4046, POLI 4060, POLI 4062, POLI 4064; REL 2029, REL 3300, REL 4031, REL 4032; REL 3092/INTL 3092; SOCL 4551, SOCL 4701; WGS 2900.

## Latin America **CRITICAL REQUIREMENTS**

SEMESTER 1: ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057

SEMESTER 2: ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057 SEMESTER 3: ANTH 1003/ANTH 2051 or ECON

2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057; First Course in Spanish Foreign Language Sequence; Admission to the College. SEMESTER 4: ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057; Second Course in Spanish Foreign Language Sequence. SEMESTER 5: ENGL 2000;INTL 3001; Third course in Spanish Foreign Language Sequence.

#### Semester 1

CRITICAL: ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057.

ENGL 1001 English Composition (3)

#### INTL Core Course (3)

- Select **one** course from the following:
- ANTH 1003 Introduction to Cultural and Social Anthropology (3)
- ANTH 2051 Introduction to World Ethnography (3)
- ECON 2030 Economic Principles (3) •
- ECON 2031 HONORS: Economic Principles (3) •
- GEOG 1001 Human Geography: Americas and • Europe (3)
- GEOG 1003 Human Geography: Africa and Asia (3)
- HIST 1007 World History Since 1500 (3) .
- POLI 2053 Introduction to Comparative Politics (3)
- POLI 2057 Introduction to International Politics (3)
- First Course in Foreign Language Sequence (4)<sup>1</sup>
- General Education course Analytical Reasoning (from mathematics) (3)
- General Education course Natural Sciences (3)<sup>2</sup>

## **Total Semester Hours: 16**

## Semester 2

CRITICAL: ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057.

#### INTL Core Courses (6)

- Select two courses from the following: .
- ANTH 1003 Introduction to Cultural and Social • Anthropology (3)
- ANTH 2051 Introduction to World Ethnography (3)
- ECON 2030 Economic Principles (3) .
- ECON 2031 HONORS: Economic Principles (3)
- GEOG 1001 Human Geography: Americas and Europe (3)
- GEOG 1003 Human Geography: Africa and Asia (3)
- HIST 1007 World History Since 1500 (3)

- POLI 2053 Introduction to Comparative Politics (3)
- POLI 2057 Introduction to International Politics (3)
- Second Course in Foreign Language Sequence (4)<sup>1</sup>

• General Education course - Natural Sciences (3)<sup>2</sup> Total Semester Hours: 13

### Semester 3

**CRITICAL:** ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057; First Course in Spanish Foreign Language Sequence; Admission to the College.

INTL Core Course (3)

- Select **one** course from the following:
- ANTH 1003 Introduction to Cultural and Social Anthropology (3)
- ANTH 2051 Introduction to World Ethnography (3)
- ECON 2030 Economic Principles (3)
- ECON 2031 HONORS: Economic Principles (3)
- GEOG 1001 Human Geography: Americas and Europe (3)
- GEOG 1003 Human Geography: Africa and Asia (3)
- HIST 1007 World History Since 1500 (3)
- POLI 2053 Introduction to Comparative Politics (3)
- POLI 2057 Introduction to International Politics (3)
- Third Course in Foreign Language Sequence (3)<sup>1</sup>
- General Education course Humanities (3)
- General Education course Natural Sciences (3)<sup>2</sup>
- Approved Electives (5)
- **Total Semester Hours: 17**

### Semester 4

**CRITICAL:** ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057; Second Course in Spanish Foreign Language Sequence.

#### INTL Core Course (3)

- Select **one** course from the following:
- ANTH 1003 Introduction to Cultural and Social Anthropology (3)
- ANTH 2051 Introduction to World Ethnography (3)
- ECON 2030 Economic Principles (3)
- ECON 2031 HONORS: Economic Principles (3)
- GEOG 1001 Human Geography: Americas and Europe (3)
- GEOG 1003 Human Geography: Africa and Asia (3)

- HIST 1007 World History Since 1500 (3)
- POLI 2053 Introduction to Comparative Politics (3)
- POLI 2057 Introduction to International Politics (3)
- ENGL 2000 English Composition (3)
- INTL 3001 Gateway to International Studies (3)
- Fourth Course in Foreign Language Sequence (3)<sup>1</sup>
- General Education course Analytical Reasoning (3)

### Total Semester Hours: 15 Semester 5

**CRITICAL:** ENGL 2000;INTL 3001; Third course in Spanish Foreign Language Sequence.

- Fifth Course in Foreign Language Sequence (3)<sup>1</sup>
- General Education course Arts (3)
- International Studies Primary Area of Concentration Course (3)<sup>3</sup>
- Approved Electives (6)

## Total Semester Hours: 15

### Semester 6

- International Studies Primary Area of Concentration Courses (6)<sup>3</sup>
- Sixth Course in Foreign Language Sequence (3)<sup>1</sup>
- Approved Electives (6)

### Total Semester Hours: 15 Semester 7

- International Studies Primary Area of Concentration Courses (6)<sup>3</sup>
- General Education course Humanities (3)
- Approved Electives (5)

# Total Semester Hours: 14

## Semester 8

- INTL 4003 International Studies Senior Seminar (3)
- International Studies Secondary Area of Concentration Courses (6)<sup>4</sup>
- Approved Electives (6)

#### **Total Semester Hours: 15**

### 120 Total Sem. Hrs.

<sup>1</sup> - Select from SPAN:

SPAN 1101 , SPAN 1102 or SPAN 1152, SPAN 2101, SPAN 2102, SPAN 2155, and one from SPAN 2156, SPAN 3010, SPAN 3043, SPAN 3044, SPAN 3070, SPAN 3072, SPAN 3073, SPAN 3074, SPAN 3980, SPAN 4063, SPAN 4064, SPAN 4100, SPAN 4145, SPAN 4146, SPAN 4147, SPAN 4201, SPAN 4400.

<sup>2</sup> - If two course sequence is taken in the physical sciences, the additional three hour course must be taken from the life sciences, and vice versa.

<sup>3</sup> - Select fifteen hours from the following (must be taken in at least two different departments; at least nine hours must be at or above the 3000-level):

AAAS 4323/ENGL 4323, ANTH 4023; GEOG 4031; HIST 2085, HIST 4081, HIST 4083; INTL 3995; POLI 4065; SPAN 3043, SPAN 3044, SPAN 3074, SPAN 4144, SPAN 4145, SPAN 4146, SPAN 4147, SPAN 4201.

<sup>4</sup> - Select six hours from one of the following secondary areas of concentration (at least 3 hours must be at or above the 3000-level):

#### **Environment and Development**

ANTH 4086; GEOG 2200, ECON 4520, ECON 4550, ECON 4070, ECON 4320, ECON 4325; EMS 1011, EMS 3040; ENVS 1126, ENVS 4261; GEOG 4014, GEOG 4045, GEOG 3070, GEOG 4078, GEOG 4080, GEOG 4086; LA 2201, LA 2401, LA 3201; OCS 4465, OCS 4550; POLI 4062, POLI 4064; RNR 1001, RNR 2039, RNR 4023, RNR 4107, SOCL 4551.

#### **Global Cultures**

AAAS 2000, AAAS 2410, AAAS 3024, AAAS 4124/REL 4124; ANTH 2050, ANTH 3060, ANTH 4031/REL 4031, ANTH 4470; ARTH 4466; CPLT 2202/ENGL 2202; ENGL 2673, ENGL 3080, ENGL 4680; FREN 3076, FREN 3090, FREN 4070; GEOG 4079; HIST 4049; INTL 4100, REL 2029, REL 3092; SOCL 4551; SPAN 4100; THTR 3122, THTR 4220, WGS 2900.

#### **Global Diplomacy**

ECON 4520, ECON 4550, ECON 4560; HIST 2023, HIST 4028, HIST 4049, HIST 4064, HIST 4066, HIST 4130, HIST 4140; POLI 4041, POLI 4042, POLI 4043, POLI 4044, POLI 4046, POLI 4047, POLI 4048, POLI 4062, POLI 4063, POLI 4064, POLI 4074.

#### **Global Studies**

ANTH 4031; ECON 4070, ECON 4520, ECON 4550; ENGL 3080; ENVS 4010; FIN 3718; HIST 2023; INTL 2000, INTL 3002, INTL 3099, INTL 4100; POLI 4040, POLI 4050, POLI 4041, POLI 4042, POLI 4046, POLI 4060, POLI 4062, POLI 4064; REL 2029, REL 3300, REL 4031, REL 4032; REL 3092/INTL 3092; SOCL 4551, SOCL 4701; WGS 2900.

### Middle East CRITICAL REQUIREMENTS

SEMESTER 1: ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057

SEMESTER 2: ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057

SEMESTER 3: ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057; First Course in Arabic Foreign Language Sequence; Admission to the College. SEMESTER 4: ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057; Second Course in Arabic Foreign Language Sequence.

SEMESTER 5: ENGL 2000;INTL 3001; Third Course in Arabic Foreign Language Sequence.

#### Semester 1

**CRITICAL:** ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057.

• ENGL 1001 English Composition (3)

#### INTL Core Course (3)

- Select **one** course from the following:
- ANTH 1003 Introduction to Cultural and Social Anthropology (3)
- ANTH 2051 Introduction to World Ethnography (3)
- ECON 2030 Economic Principles (3)
- ECON 2031 HONORS: Economic Principles (3)
- GEOG 1001 Human Geography: Americas and Europe (3)
- GEOG 1003 Human Geography: Africa and Asia (3)
- HIST 1007 World History Since 1500 (3)
- POLI 2053 Introduction to Comparative Politics (3)
- POLI 2057 Introduction to International Politics (3)
- First Course in Foreign Language Sequence (4)<sup>1</sup>
- General Education course Analytical Reasoning (from mathematics) (3)
- General Education course Natural Sciences (3)<sup>2</sup>

#### **Total Semester Hours: 16**

#### Semester 2

**CRITICAL:** ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057.

#### INTL Core Courses (6)

- Select **two** courses from the following:
- ANTH 1003 Introduction to Cultural and Social Anthropology (3)
- ANTH 2051 Introduction to World Ethnography (3)
- ECON 2030 Economic Principles (3)
- ECON 2031 HONORS: Economic Principles (3)
- GEOG 1001 Human Geography: Americas and Europe (3)
- GEOG 1003 Human Geography: Africa and Asia (3)
- HIST 1007 World History Since 1500 (3)
- POLI 2053 Introduction to Comparative Politics (3)
- POLI 2057 Introduction to International Politics (3)
- Second Course in Foreign Language Sequence (4)<sup>1</sup>
- General Education course Natural Sciences (3)<sup>2</sup>
- Approved Elective (1)

### Total Semester Hours: 14 Semester 3

**CRITICAL:** ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057; First Course in Arabic Foreign Language Sequence; Admission to the College.

INTL Core Course (3)

- Select **one** course from the following:
- ANTH 1003 Introduction to Cultural and Social Anthropology (3)
- ANTH 2051 Introduction to World Ethnography (3)
- ECON 2030 Economic Principles (3)
- ECON 2031 HONORS: Economic Principles (3)
- GEOG 1001 Human Geography: Americas and Europe (3)
- GEOG 1003 Human Geography: Africa and Asia (3)
- HIST 1007 World History Since 1500 (3)
- POLI 2053 Introduction to Comparative Politics (3)
- POLI 2057 Introduction to International Politics (3)
- Third Course in Foreign Language Sequence (3)<sup>1</sup>
- General Education course Humanities (3)
- General Education course Natural Sciences (3)<sup>2</sup>
- Approved Elective (3)

## Total Semester Hours: 15

#### Semester 4

**CRITICAL:** ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057; Second Course in Arabic Foreign Language Sequence.

INTL Core Course (3)

- Select **one** course from the following:
- ANTH 1003 Introduction to Cultural and Social Anthropology (3)
- ANTH 2051 Introduction to World Ethnography (3)
- ECON 2030 Economic Principles (3)
- ECON 2031 HONORS: Economic Principles (3)
- GEOG 1001 Human Geography: Americas and Europe (3)
- GEOG 1003 Human Geography: Africa and Asia (3)
- HIST 1007 World History Since 1500 (3)
- POLI 2053 Introduction to Comparative Politics (3)
- POLI 2057 Introduction to International Politics (3)
- ENGL 2000 English Composition (3)
- INTL 3001 Gateway to International Studies (3)

- Fourth Course in Foreign Language Sequence (3)<sup>1</sup>
- General Education course Analytical Reasoning (3)

Total Semester Hours: 15 Semester 5

**CRITICAL:** ENGL 2000;INTL 3001; Third Course in Arabic Foreign Language Sequence.

- Fifth Course in Foreign Language Sequence (3)<sup>1</sup>
- General Education course Arts (3)
- International Studies Primary Area of Concentration Course (3)<sup>3</sup>
- Approved Electives (6)

### Total Semester Hours: 15 Semester 6

- International Studies Primary Area of Concentration Courses (6)<sup>3</sup>
- Sixth Course in Foreign Language Sequence (3)<sup>1</sup>
- Approved Electives (6)

### Total Semester Hours: 15 Semester 7

- International Studies Primary Area of Concentation Courses (6)<sup>3</sup>
- General Education course Humanities (3)
- Approved Electives (6)

### Total Semester Hours: 15 Semester 8

- INTL 4003 International Studies Senior Seminar (3)
- International Studies Secondary Area of Concentration Courses (6)<sup>4</sup>
- Approved Electives (6)

Total Semester Hours: 15

#### 120 Total Sem. Hrs.

<sup>1</sup> - ARAB 1101, ARAB 1102, ARAB 2101, ARAB 2102, ARAB 3101, ARAB 3102.

<sup>2</sup> - If two course sequence is taken in the physical sciences, the additional three hour course must be taken from the life sciences, and vice versa.

<sup>3</sup> - Select fifteen hours from the following (must be taken in at least two different departments; at least nine hours must be at or above the 3000-level):

ARAB 2001, ARAB 4915; ARTH 2401, ARTH 4449; REL 4096/HIST 4096; INTL 3992, INTL 4033, INTL 4051/GEOG 4051; POLI 4059, POLI 4061; REL 2029, REL 3100, REL 3786/INTL 3786; REL 3092/INTL 3092; SOCL 4551.

<sup>4</sup> - Select six hours from one of the following secondary areas of concentration (at least 3 hours must be at or above the 3000-level):

#### **Environment and Development**

ANTH 4086; GEOG 2200, ECON 4520, ECON 4550, ECON 4070, ECON 4320, ECON 4325; EMS 1011, EMS 3040; ENVS 1126, ENVS 4261; GEOG 4014, GEOG 4045, GEOG 3070, GEOG 4078, GEOG 4080, GEOG 4086; LA 2201, LA 2401, LA 3201; OCS 4465, OCS 4550; POLI 4062, POLI 4064; RNR 1001, RNR 2039, RNR 4023, RNR 4107, SOCL 4551.

#### **Global Cultures**

AAAS 2000, AAAS 2410, AAAS 3024, AAAS 4124/REL 4124; ANTH 2050, ANTH 3060, ANTH 4031/REL 4031, ANTH 4470; ARTH 4466; CPLT 2202/ENGL 2202; ENGL 2673, ENGL 3080, ENGL 4680; FREN 3076, FREN 3090, FREN 4070; GEOG 4079; HIST 4049; INTL 4100, REL 2029, REL 3092; SOCL 4551; SPAN 4100; THTR 3122, THTR 4220, WGS 2900.

#### **Global Diplomacy**

ECON 4520, ECON 4550, ECON 4560; HIST 2023, HIST 4028, HIST 4049, HIST 4064, HIST 4066, HIST 4130, HIST 4140; POLI 4041, POLI 4042, POLI 4043, POLI 4044, POLI 4046, POLI 4047, POLI 4048, POLI 4062, POLI 4063, POLI 4064, POLI 4074.

#### **Global Studies**

ANTH 4031; ECON 4070, ECON 4520, ECON 4550; ENGL 3080; ENVS 4010; FIN 3718; HIST 2023; INTL 2000, INTL 3002, INTL 3099, INTL 4100; POLI 4040, POLI 4050, POLI 4041, POLI 4042, POLI 4046, POLI 4060, POLI 4062, POLI 4064; REL 2029, REL 3300, REL 4031, REL 4032; REL 3092/INTL 3092; SOCL 4551, SOCL 4701; WGS 2900.

## **Global Areas of Concentration**

Students must complete 15 hours for a primary concentration or six hours (from different departments) for a secondary concentration in one of these global areas. There are four global areas of concentration to choose from: environment and development, global cultures, global diplomacy, and global studies.

## Environment and Development, Global Cultures, Global Diplomacy, and Global Studies CRITICAL REQUIREMENTS

SEMESTER 1: ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057

SEMESTER 2: ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057

SEMESTER 3: ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057; First Course in Foreign Language Sequence; Admission to the College. SEMESTER 4: ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057; Second Course in Foreign

Language Sequence. SEMESTER 5: ENGL 2000;INTL 3001; Third Course in

Foreign Language Sequence.

#### Semester 1

**CRITICAL:** ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057.

• ENGL 1001 English Composition (3)

#### INTL Core Course (3)

- Select **one** course from the following:
- ANTH 1003 Introduction to Cultural and Social Anthropology (3)
- ANTH 2051 Introduction to World Ethnography (3)
- ECON 2030 Economic Principles (3)
- ECON 2031 HONORS: Economic Principles (3)
- GEOG 1001 Human Geography: Americas and Europe (3)
- GEOG 1003 Human Geography: Africa and Asia (3)
- HIST 1007 World History Since 1500 (3)
- POLI 2053 Introduction to Comparative Politics (3)
- POLI 2057 Introduction to International Politics (3)
- First Course in Foreign Language Sequence (4)<sup>1</sup>
- General Education course Analytical Reasoning (from mathematics) (3)
- General Education course Natural Sciences (3)<sup>2</sup>

#### **Total Semester Hours: 16**

#### Semester 2

**CRITICAL:** ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057.

INTL Core Courses (6)

- Select **two** courses from the following:
- ANTH 1003 Introduction to Cultural and Social Anthropology (3)
- ANTH 2051 Introduction to World Ethnography (3)
- ECON 2030 Economic Principles (3)
- ECON 2031 HONORS: Economic Principles (3)
- GEOG 1001 Human Geography: Americas and Europe (3)
- GEOG 1003 Human Geography: Africa and Asia (3)
- HIST 1007 World History Since 1500 (3)
- POLI 2053 Introduction to Comparative Politics (3)
- POLI 2057 Introduction to International Politics (3)
- Second Course in Foreign Language Sequence (4)<sup>1</sup>

• General Education course - Natural Sciences (3)<sup>2</sup> Total Semester Hours: 13

### Semester 3

**CRITICAL:** ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057; First Course in Foreign Language Sequence; Admission to the College.

INTL Core Course (3)

- Select **one** course from the following:
- ANTH 1003 Introduction to Cultural and Social Anthropology (3)
- ANTH 2051 Introduction to World Ethnography (3)
- ECON 2030 Economic Principles (3)
- ECON 2031 HONORS: Economic Principles (3)
- GEOG 1001 Human Geography: Americas and Europe (3)
- GEOG 1003 Human Geography: Africa and Asia (3)
- HIST 1007 World History Since 1500 (3)
- POLI 2053 Introduction to Comparative Politics (3)
- POLI 2057 Introduction to International Politics (3)
- Third Course in Foreign Language Sequence (4-3)<sup>1</sup>
- General Education course Humanities (3)
- General Education course Natural Sciences (3)<sup>2</sup>
- Approved Electives (3-5)

### Total Semester Hours: 16-17 Semester 4

**CRITICAL:** ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057; Second Course in Foreign Language Sequence.

INTL Core Course (3)

- Select **one** course from the following:
- ANTH 1003 Introduction to Cultural and Social Anthropology (3)
- ANTH 2051 Introduction to World Ethnography (3)
- ECON 2030 Economic Principles (3)
- ECON 2031 HONORS: Economic Principles (3)
- GEOG 1001 Human Geography: Americas and Europe (3)
- GEOG 1003 Human Geography: Africa and Asia (3)
- HIST 1007 World History Since 1500 (3)
- POLI 2053 Introduction to Comparative Politics (3)
- POLI 2057 Introduction to International Politics (3)
- ENGL 2000 English Composition (3)
- INTL 3001 Gateway to International Studies (3)

- Fourth Course in Foreign Language Sequence (4-3)<sup>1</sup>
- General Education course Analytical Reasoning (3)

### Total Semester Hours: 16-15 Semester 5

**CRITICAL:** ENGL 2000;INTL 3001; Third Course in Foreign Language Sequence.

- Fifth Course in Foreign Language Sequence (3)<sup>1</sup>
- General Education course Arts (3)
- International Studies Primary Area of Concentration Course (3)<sup>3</sup>
- Approved Electives (6)

### Total Semester Hours: 15 Semester 6

- International Studies Primary Area of Concentration Courses (6)<sup>3</sup>
- Sixth Course in Foreign Language Sequence (3)<sup>1</sup>
- Approved Electives (6)

### Total Semester Hours: 15 Semester 7

- International Studies Primary Area of Concentration Courses (6)<sup>3</sup>
- General Education course Humanities (3)
- Approved Electives (5)

### Total Semester Hours: 14 Semester 8

- INTL 4003 International Studies Senior Seminar (3)
- International Studies Secondary Area of Concentration Courses (6)<sup>4</sup>
- Approved Electives (6)

### Total Semester Hours: 15 120 Total Sem. Hrs.

<sup>1</sup> - Note: Students must demonstrate competency in a language relevant to their regional area of concentration.(Competency means: equivalent of six courses for Arabic, Spanish, French, Italian, Chinese and German.) Native speakers of a language relevant to their regional concentration can petition the program director for an exemption from this language requirement. The student's proficiency in reading, writing, and speaking the language must be verified by someone knowledgeable in that language. The Associate Director will select an appropriate individual to conduct an assessment of the student's language proficiency. These students are still required to meet the four semester college level foreign language requirement as described in the General Catalog. Complete one of the following sequences: SPAN 1101, SPAN 1102 or SPAN 1152, SPAN 2101, SPAN 2102, SPAN 2155, and one from SPAN 2156, SPAN 3010, SPAN 3043, SPAN 3044, SPAN 3070, SPAN 3072, SPAN 3073, SPAN 3074, SPAN 3980, SPAN 4063, SPAN 4064,

SPAN 4100, SPAN 4145, SPAN 4146, SPAN 4147, SPAN 4201, SPAN 4400.

FREN 1001, FREN 1002, FREN 2101, FREN 2102, FREN 2155, and FREN 3060.

GERM 1101, GERM 1102, GERM 2101, GERM 2102, GERM 2155, and GERM 3060 or GERM 3061 or GERM 3082 or GERM 3083 or GERM 3084 or GERM 4031 or GERM 4043 or GERM 4044 or GERM 4045.

ITAL 1001, ITAL 1002, ITAL 2101, ITAL 2102, ITAL 2155, and ITAL 3058 or ITAL 3071 or ITAL 3072 or ITAL 4051 or ITAL 4100.

CHIN 1101, CHIN 1102, CHIN 2001, CHIN 2002, CHIN 3101, CHIN 3102.

ARAB 1101, ARAB 1102, ARAB 2101, ARAB 2102, ARAB 3101, ARAB 3102.

 $^2$  - If two course sequence is taken in the physical sciences, the additional three hour course must be taken from the life sciences, and vice versa.

<sup>3</sup> - Select fifteen hours from the following (must be taken in at least two different departments; at least nine hours must be at or above the 3000-level) for the appropriate area of concentration:

#### **Environment and Development**

ANTH 4086; GEOG 2200; ECON 4520, ECON 4550, ECON 4070, ECON 4320, ECON 4325; EMS 1011, EMS 3040; ENVS 1126, ENVS 4261; GEOG 4014, GEOG 4045, GEOG 3070, GEOG 4078, GEOG 4080, GEOG 4086; LA 2201, LA 2401, LA 3201; OCS 4465, OCS 4550; POLI 4062, POLI 4064; RNR 1001, RNR 2039, RNR 4023, RNR 4107, SOCL 4551.

#### **Global Cultures**

AAAS 2000, AAAS 2410, AAAS 3024, AAAS 4124/REL 4124; ANTH 2050, ANTH 3060, ANTH 4031/REL 4031, ANTH 4470; ARTH 4466; CPLT 2202/ENGL 2202; ENGL 2673, ENGL 3080, ENGL 4680; FREN 3076, FREN 3090, FREN 4070; GEOG 4079; HIST 4049; INTL 4100, REL 2029, REL 3092; SOCL 4551; SPAN 4100; THTR 3122, THTR 4220, WGS 2900.

#### **Global Diplomacy**

ECON 4520, ECON 4550, ECON 4560; HIST 2023, HIST 4028, HIST 4049, HIST 4064, HIST 4066, HIST 4130, HIST 4140; POLI 4041, POLI 4042, POLI 4043, POLI 4044, POLI 4046, POLI 4047, POLI 4048, POLI 4062, POLI 4063, POLI 4064, POLI 4074.

#### **Global Studies**

ANTH 4031; ECON 4070, ECON 4520, ECON 4550; ENGL 3080; ENVS 4010; FIN 3718; HIST 2023; INTL 2000, INTL 3002, INTL 3099, INTL 4100; POLI 4040, POLI 4050, POLI 4041, POLI 4042, POLI 4046, POLI 4060, POLI 4062; REL 2029, REL 3300, REL 4032; REL 4031, SOCL 4701; WGS 2900.

<sup>4</sup> - Select six hours from one of the following secondary areas of concentration (at least 3 hours must be at or above the 3000-level):

Africa- AAAS 2050, AAAS 3120, AAAS 3122; ANTH 4051, ANTH 4470; FREN 4070; ENGL 4322; HIST 4084, HIST 4085, INTL 3991, POLI 4064, POLI 4078; SOCL

4551; THTR 4220/ENGL 4220; language component Arabic or French.

Asia - ARTH 2411, ARTH 4441, ARTH 4442, ARTH 4443; CHIN 2070, CHIN 3101, CHIN 3102, CHIN 3801, GEOG 4037, HIST 2096, HIST 4078, HIST 4091, HIST 4092, HIST 4093, HIST 4094, HIST 4097; HIST 4191/REL 4191; INTL 3993; INTL 4002/ANTH 4002/GEOG 4002 or REL 4001, INTL 4033/GEOG 4033; POLI 4067, POLI 4079; REL 2027, REL 4600, REL 4800; language component Chinese. Europe - ARCH 2008; ARTH 4422, ARTH 4450, ARTH 4451; ENGL 3022, ENGL 4062; FREN 3071, FREN 3072, FREN 3080, FREN 4031, FREN 4040, FREN 4050, FREN 4051: GERM 2075, GERM 3082, GERM 3083, GERM 3084, GERM 3091, GERM 4044, GERM 4045, GERM 4046; HIST 2022, HIST 4016, HIST 4017, HIST 4022, HIST 4023, HIST 4026, HIST 4028, HIST 4030, HIST 4032, HIST 4046, HIST 4047, HIST 4048, HIST 4049, HIST 4112, HIST 4113, HIST 4130; INTL 3994; ITAL 3001, ITAL 3072; PHIL 3001, PHIL 3003, PHIL 3090, PHIL 4003, POLI 4070, POLI 4072, POLI 4074, POLI 4075, POLI 4076; SPAN 3073, SPAN 4064, SPAN 4201; language component French, German, Italian, or Spanish. Latin America - AAAS 4323/ENGL 4323, ANTH 4023; GEOG 4031; HIST 2085, HIST 4081, HIST 4083; INTL 3995; POLI 4065; SPAN 3043, SPAN 3044, SPAN 3074, SPAN 4144, SPAN 4145, SPAN 4146, SPAN 4147, SPAN 4201; language component Spanish. Middle East - ARAB 2001, ARAB 4915; ARTH 2401, ARTH 4449; HIST 4096/REL 4096; INTL 3992, INTL 4033, INTL 4051/GEOG 4051; POLI 4059, POLI 4061; REL 2029, REL 3100, REL 3786/INTL 3786; REL

3092/INTL 3092; SOCL 4551; language component Arabic.

## Liberal Arts (Intercollegiate Program)

OFFICE	119 Hodges Ha
TELEPHONE	225-578-3141
FAX	225-578-6447

The Bachelor of Arts in Liberal Arts enables students in the College of Humanities & Social Sciences to become broadly educated in the liberal arts, while satisfying the requirements for a variety of specialized areas of concentration. Currently, concentrations are offered in:

- African and African American studies
- Art History
- Classical Civilization
- Religious Studies
- Women's & Gender Studies.

#### African & African American Studies Minor

To graduate with a *minor in African & African American studies*, students must complete AAAS 2000, AAAS 4020, and 12 hours of electives. Of the 12 hours, six must be at the 3000 level or above and at least three hours must focus on a geographical region other than the US. The electives must be chosen from at least two divisions and three departments:

- Division I History and Culture: AAAS 2410, AAAS 3024, AAAS 3120 (Non-US), AAAS 3122 (Non-US), AAAS 3901, AAAS 3902; ANTH 4050, ANTH 4051 (Non-US), ANTH 4053, ANTH 4470; HIST 2061, HIST 4055, HIST 4072, HIST 4081 (Non-US)
- Division II Politics and Society: AAAS 2050 (Non-US), AAAS 2511, AAAS 3024, AAAS 3425, AAAS 3901, AAAS 3902; POLI 4039, POLI 4078 (Non-US); WGS 2900
- Division III Literature, Language, and the Arts: AAAS 2410, AAAS 3044, AAAS 3341, AAAS 3901, AAAS 3902, AAAS 4322 (Non-US), AAAS 4323 (Non-US); ENGL 2674, ENGL 3674, ENGL 4173, ENGL 4220, ENGL 4674; FREN 4070 (Non-US); MUS 2000

Note: This course listing is not exhaustive. Special topics courses relevant to AAAS offered by participating departments may be counted towards the minor requirements with prior approval from the program advisor. For additional information, contact the program director, African and African American Studies, 135 Howe-Russell Complex, 225-578-5246, e-mail aaas@lsu.edu, or visit the AAAS website at www.lsu.edu/aaas.

### **Art History Minor**

To graduate with a *minor in art history*, students must complete ARTH 1440, ARTH 1441, and 12 additional hours in art history at the 4000 level or above.

### **Religious Studies Minor**

A *minor in religious studies* requires 15 hours of religious studies courses, including REL 2027, REL 2029, and nine hours of religious studies electives, of which at least six hours must be at the 3000 level or above.

### Women's & Gender Studies Minor

To graduate with a *minor in Women's & Gender Studies*, students must complete WGS 2500, WGS 4500, and 12 hours of electives, at least nine of which must be in courses at the 3000 level or above. Electives must be chosen from at least two of the following areas:

- Literature-ENGL 2593, ENGL 3593, ENGL 4593 (depending upon topic); FREN 4090, SPAN 4100
- Culture and Society-ENGL 4493; CLST 2080; HIST 4079; REL 3300; SOCL 4521; CMST 3115; WGS 4028
- Theory–ENGL 4593 (depending upon topic); WGS 3150.

In addition, WGS 4900, special topics courses, and courses with sections advertised as Women's & Gender Studies may be accepted for the minor with the approval of the Director. For additional information, contact the Director of Women's & Gender Studies, 118 Himes Hall, 225-578-4807 or visit their website at www.lsu.edu/wgs.

## Liberal Arts, B.A.

## Liberal Arts Areas of Concentration African & African American Studies

## **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: First Course in Foreign Language Sequence. SEMESTER 3: AAAS 2000; Admission to the College. SEMESTER 4: Area of Concentration Course; Second Course in Foreign Language Sequence. SEMESTER 5: Area of Concentration Course.

## Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- General Education course Analytical Reasoning (from mathematics) (3)
- First Course in Foreign Language Sequence (4)
- General Education course Natural Sciences (3)<sup>1</sup>

### **Total Semester Hours: 13**

### Semester 2

**CRITICAL:** First Course in Foreign Language Sequence.

- AAAS 2000 Introduction to African & African American Studies (3)
- Second Course in Foreign Language Sequence (4)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Arts (3)
- Approved Elective (0-2)

### Total Semester Hours: 13-15 Semester 3

CRITICAL: AAAS 2000; Admission to the College.

- Third Course in Foreign Language Sequence (4-3)
- General Education course Analytical Reasoning (3)
- General Education course Humanities (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- Area of Concentration Course (3)<sup>2</sup>

## Total Semester Hours: 16-15 Semester 4

**CRITICAL:** Area of Concentration Course; Second Course in Foreign Language Sequence.

- AAAS 3024 African Diaspora Intellectual Thought (3) or
- AAAS 3044 Black Rhetorical Traditions (3)

- ENGL 2000 English Composition (3)
- Fourth Course in Foreign Language Sequence (4-3)
- Area of Concentration Course  $(3)^2$
- Approved Elective (3)

### Total Semester Hours: 16-15 Semester 5

**CRITICAL:** Area of Concentration Course.

- General Education course Humanities (3)
- General Education course Social Sciences (3)
- Area of Concentration Course  $(3)^2$
- Approved Electives (7)

## Total Semester Hours: 16 Semester 6

- General Education course Humanities (3)
- Area of Concentration Courses (6)<sup>2</sup>
- Approved Electives (6)

## Total Semester Hours: 15 Semester 7

- AAAS 4020 Senior Seminar (3)
- Area of Concentration Courses (6)<sup>2</sup>
- Approved Electives (7)

### Total Semester Hours: 16 Semester 8

- Area of Concentration Course  $(3)^2$
- Approved Electives (12)

## Total Semester Hours: 15 120 Total Sem. Hrs.

<sup>1</sup> - If two course sequence is taken in the physical sciences, the additional three hour course must be taken from the life sciences, and vice versa.

<sup>2</sup> - In addition to the nine hours of core required courses (AAAS 2000, AAAS 3024/AAAS 3044 (CxC), AAAS 4020), students must complete 24 hours from at least two divisions and three different departments. A minimum of six hours must focus on a geographical region outside the U.S. (non-US), Three hours must be either Service-Learning (S-L) or Communication Across the Curriculum (CxC). Only 12 hours from courses numbered below the 3000 level may count toward the degree. Note: This course listing is not exhaustive. Courses from participating departments that are special topics and/or courses with service-learning or CxC sections relevant to AAAS may be counted toward the concentration requirements with prior approval from the program advisor. For additional information, contact Professor Stephen C. Finley, 102 Coates Hall, 225-578-7023, email aaas@lsu.edu, or visit the AAAS website at www.lsu.edu/aaas.

### Divisions (24 hrs.) Division I – History and Culture:

- AAAS 2410 Black Popular Culture (3)
- AAAS 3024 African Diaspora Intellectual Thought (3)
- AAAS 3120 Topics in History of Africa and the African Diaspora (3) (non-U.S.)
- AAAS 3122 Topics in Pre-Colonial Africa (3) (non-US)
- AAAS 3901 Directed Readings and Research in African and African-American Studies (1-3)
- AAAS 3902 Special Topics in African & African American Studies (1-3)
- ANTH 4050 Black Music in America (3)
- ANTH 4051 Africa (3) (non-US)
- ANTH 4053 African-American Cultures (3)
- ANTH 4470 Folklore of the African Diaspora (3)
- HIST 2061 African American History (3)
- HIST 4055 Civil War (3)
- HIST 4072 The New South (3)
- HIST 4081 The Caribbean: 1492-1830 (3) (non-US)

### Division II – Politics and Society:

- AAAS 2050 Contemporary Africa (3) (non-US)
- AAAS 2511 Race Relations (3)
- AAAS 3024 African Diaspora Intellectual Thought (3)
- AAAS 3425 Black Women in America (3)
- AAAS 3901 Directed Readings and Research in African and African-American Studies (1-3)
- AAAS 3902 Special Topics in African & African American Studies (1-3)
- POLI 4039 Southern Politics (3)
- POLI 4078 African Government and Politics (3) (non-US)
- WGS 2900 Gender, Race and Nation (3)

Division III – Literature, Language, and the Arts:

- AAAS 2410 Black Popular Culture (3)
- AAAS 3044 Black Rhetorical Traditions (3) (CxC)
- AAAS 3341 African American English (3)
- AAAS 3901 Directed Readings and Research in African and African-American Studies (1-3)
- AAAS 3902 Special Topics in African & African American Studies (1-3)
- AAAS 4322 Studies in African Literature (3) (non-US)
- AAAS 4323 Studies in Caribbean Literature (3) (non-US)
- ENGL 2674 Introduction to African-American Literature (3)
- ENGL 3674 Survey of African-American Literature (3)
- ENGL 4173 Studies in Southern Literature (3)
- ENGL 4220 Drama of Africa and African Diaspora (3)

- ENGL 4674 Studies in African-American Literature (3)
- FREN 4070 Literature of Africa and the Caribbean (3) (non-US)
- MUS 2000 History of Jazz (3)

## Art History CRITICAL REQUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: First Course in Foreign Language Sequence.

SEMESTER 3: ARTH 1440/ARTH 1441; Admission to the College.

SEMESTER 4: ARTH 1440/ARTH 1441; Second Course in Foreign Language Sequence.

SEMESTER 5: Two Area of Concentration Courses.

## Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- General Education course Analytical Reasoning (from mathematics) (3)
- First Course in Foreign Language Sequence (4)
- General Education course Natural Sciences (3)<sup>1</sup>

## Total Semester Hours: 13

### Semester 2

**CRITICAL:** First Course in Foreign Language Sequence.

- ARTH 1440 Historical Survey of the Arts (3) or
- ARTH 1441 Historical Survey of the Arts (3)
- Second Course in Foreign Language Sequence (4)
- General Education course Natural Sciences (3)<sup>1</sup>
- Approved Electives (4-6)

### Total Semester Hours: 14-16

### Semester 3

**CRITICAL:** ARTH 1440/ARTH 1441; Admission to the College.

- ARTH 1440 Historical Survey of the Arts (3) or
- ARTH 1441 Historical Survey of the Arts (3)
- Third Course in Foreign Language Sequence (4-3)
- General Education course Analytical Reasoning (3)
- General Education course Humanities (3)
- General Education course Natural Sciences (3)<sup>1</sup>

### Total Semester Hours: 16-15

### Semester 4

**CRITICAL:** ARTH 1440/ARTH 1441; Second Course in Foreign Language Sequence.

- ENGL 2000 English Composition (3)
- Fourth Course in Foreign Language Sequence (4-3)
- Area of Concentration Courses (6)<sup>2</sup>
- Approved Elective (3)

## Total Semester Hours: 16-15

### Semester 5

**CRITICAL:** Two Area of Concentration Courses.

- General Education course Humanities (3)
- General Education course Social Sciences (3)
- Area of Concentration Courses (6)<sup>2</sup>
- Approved Electives (4)

## Total Semester Hours: 16 Semester 6

- ARTH 2411 Survey of Asian Art (3)
- General Education course Humanities (3)
- General Education course Social Sciences (2000-level) (3)
- Area of Concentration Course (3)<sup>2</sup>
- Approved Elective (3)

### Total Semester Hours: 15 Semester 7

- Area of Concentration Courses (6)<sup>2</sup>
- Approved Electives (9)

## Total Semester Hours: 15 Semester 8

- ARTH 4499 Undergraduate Seminar (3)
- Approved Electives (12)

### Total Semester Hours: 15 120 Total Sem. Hrs.

<sup>1</sup> - If a two-course sequence is taken in the physical sciences, then the three-hour course must be from the life sciences and vice versa.

<sup>2</sup> - Students must complete 21 hours of art history electives from the following courses; at least one course required in three of the four subject areas and no more than two courses are allowable at the 2000 level. ARCH 2007 or ARCH 2008 may be substituted for one 2000 level course: Art History courses that do not fall into any of the categories below may still be counted toward the 21 hour elective requirement; ARTH 4420 and ARTH 4490 may be used to fulfill appropriate subject area requirements. ARTH 4449 may be used to fulfill either the *Ancient Art and Medieval Art* or *Non-Western Art* requirement, but not both.

### Ancient Art and Medieval Art:

- ARTH 2401 Art of the Ancient Near East and Egypt (3)
- ARTH 2402 Classical Art and Archaeology (3)
- ARTH 4404 The Art of Rome (3)
- ARTH 4405 Early Christian and Byzantine Art (3)

- ARTH 4406 Romanesque Art (3)
- ARTH 4409 Early Greek Art (3)
- ARTH 4410 Later Greek Art (3)
- ARTH 4412 Gothic Art (3)
- ARTH 4449 Islamic Art and Architecture (3)

### Renaissance through 18th Century Art:

- ARTH 2469 Italian Renaissance Art (3)
- ARTH 4413 Early Netherlandish and German Painting (3)
- ARTH 4423 Early Renaissance Painting in Italy (3)
- ARTH 4424 High Renaissance and Mannerist Painting in Italy (3)
  - ARTH 4427 Northern Baroque Painting (3)
- ARTH 4429 Southern Baroque Art (3)
- ARTH 4433 18th Century European Art (3)

### 19th through 21st Century Art:

- ARTH 2470 Survey of Modern to Contemporary Art (3)
- ARTH 4422 History of Modern Design (3)
- ARTH 4450 19th Century European Painting (3)
- ARTH 4451 Early 20th Century European Art (3)
- ARTH 4464 American Art to 1900 (3)
- ARTH 4466 Contemporary Art (3)
- ARTH 4468 Issues in Contemporary Art (3)
- ARTH 4469 Art of the American South: 1560-1861 (3)
- ARTH 4470 History of Photography (3)
- ARTH 4480 Video Art and Theory (3)
- ARTH 4482 History of Electronic and Digital Art (3)
- ARTH 4484 New Media Art Theory (3)

#### Non-Western Art:

- ARTH 4440 African Art (3)
- ARTH 4441 Chinese Painting (3)
- ARTH 4442 Japanese Art (3)
- ARTH 4443 Indian Art (3)
- ARTH 4449 Islamic Art and Architecture (3)
- ARTH 4467 Latin American Art (3)

## Classical Civilization CRITICAL REOUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001; LATN 1001 or GREK 1001.

SEMESTER 2: LATN 2051 or GREK 2051; Gen. Ed. Course - Analytical Reasoning.

SEMESTER 3: LATN 2053 or GREK 2103; Admission to the College.

SEMESTER 4: LATN (One additional course above LATN 2053) or GREK (one additional course above GREK 2103). SEMESTER 5: Area of Concentration Course.

### Semester 1

**CRITICAL:** "C" or better in ENGL 1001; LATN 1001 or GREK 1001.

- ENGL 1001 English Composition (3)
- LATN 1001 Elementary Latin (4) or
- GREK 1001 Elementary Greek (4)
- General Education course Analytical Reasoning (3)
- Approved Elective (2)
- General Education course Natural Sciences (3)<sup>1</sup>

Total Semester Hours: 15

#### Semester 2

**CRITICAL:** LATN 2051 or GREK 2051; Gen. Ed. Course - Analytical Reasoning.

- LATN 2051 Intermediate Latin (4) or
- GREK 2051 Intermediate Greek (4)
- General Education course Natural Sciences (3)<sup>1</sup>
- Approved Electives (8)

#### Total Semester Hours: 15

### Semester 3

**CRITICAL:** LATN 2053 or GREK 2103; Admission to the College.

- LATN 2053 Intermediate Latin (3) or
- GREK 2103 Intermediate Greek Prose (3)
- General Education course Analytical Reasoning (from mathematics) (3)
- General Education course Natural Sciences (3)<sup>1</sup>

### • Approved Electives (6)

### Total Semester Hours: 15

#### Semester 4

**CRITICAL:** LATN (one additional course above 2053) or GREK (one additional course above 2103).

- ENGL 2000 English Composition (3)
- LATN (one additional course above 2053) or GREK (one additional course above 2103) (3)
- General Education course Humanities (3)
- Approved Electives (6)

### **Total Semester Hours: 15**

### Semester 5

CRITICAL: Area of Concentration Course.

- General Education course Humanities (3)
- General Education course Social Sciences (3)
- Area of Concentration Courses (6)<sup>2</sup>
- Approved Electives (3)

### Total Semester Hours: 15 Semester 6

• General Education course - Humanities (3)

- General Education course Social Sciences (2000-level) (3)
- Area of Concentration Course (3)<sup>2</sup>
- Approved Electives (6)

### Total Semester Hours: 15 Semester 7

- CLST 4999 Senior Seminar (3)
- General Education course Arts (3)
- Area of Concentration Course  $(3)^2$
- Approved Electives (6)

## Total Semester Hours: 15 Semester 8

- Area of Concentration Course (3)<sup>2</sup>
- Approved Electives (12)

## Total Semester Hours: 15 120 Total Sem. Hrs.

<sup>1</sup> - If a two-course sequence is taken in the physical sciences, then the three-hour course must be from the life sciences and vice versa.

<sup>2</sup> - Students must complete 15 hours of concentration electives from departmental electives in Greek, Latin, Classical Studies (except CLST 2092), or ARTH 1440, ARTH 2402, ARTH 4404, ARTH 4405, ARTH 4409, ARTH 4410; ENGL 4712/LING 4712; HNRS 2041; HIST 4001, HIST 4003, HIST 4004; PHIL 2033/PHIL 2053, PHIL 2034, PHIL 4922, PHIL 4924; POLI 4081; PHIL 4928/REL 4928. At least six of the concentration electives must be at or above the 3000 level.

## Religious Studies CRITICAL REQUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: Gen. Ed. Analytical Reasoning (from mathematics). SEMESTER 3: First Course in Foreign Language Sequence; Admission to the College. SEMESTER 4: REL Course. SEMESTER 5: ENGL 2000.

### Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- REL 1000 Religions of the World (3) or
- REL 2000 Introduction to the Study of Religion (3) or
- REL 2027 Asian Religions (3) or
- REL 2031 HONORS: Asian Religions (3) or
- REL 2029 Judaism, Christianity and Islam (3) or
- REL 2030 HONORS: Judaism, Christianity and Islam (3)

- General Education course Analytical Reasoning (from mathematics) (3)
- First Course in Foreign Language Sequence (4)
- General Education course Natural Sciences (3)<sup>1</sup>

## Total Semester Hours: 16

### Semester 2

**CRITICAL:** Gen. Ed. Analytical Reasoning (from mathematics).

- Religious Studies Elective (3)<sup>2</sup>
- Second Course in Foreign Language Sequence (4)
- General Education course Natural Sciences (3)<sup>1</sup>
- Approved Electives (3-5)

## Total Semester Hours: 13-15 Semester 3

**CRITICAL:** First Course in Foreign Language Sequence; Admission to the College.

- Third Course in Foreign Language Sequence (4-3)
- General Education course Humanities (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- Religious Studies Elective (3)<sup>2</sup>
- Approved Elective (3)

## Total Semester Hours: 16-15 Semester 4

CRITICAL: REL Course.

- ENGL 2000 English Composition (3)
- REL 1000 Religions of the World (3) or
- REL 2000 Introduction to the Study of Religion (3) or
- REL 2027 Asian Religions (3) or
- REL 2031 HONORS: Asian Religions (3) or
- REL 2029 Judaism, Christianity and Islam (3) or
- REL 2030 HONORS: Judaism, Christianity and Islam (3)
- Fourth Course in Foreign Language Sequence (4-3)
- General Education course Analytical Reasoning (3)
- Religious Studies Elective (3)<sup>2</sup>

### Total Semester Hours: 16-15 Semester 5

CRITICAL: ENGL 2000.

- Approved Electives (6)
- Religious Studies Electives (6)<sup>2</sup>
- General Education course Social Sciences (3)

### Total Semester Hours: 15

### Semester 6

- General Education course Arts (3)
- General Education course Social Sciences (2000-level) (3)
- Approved Electives (9)

### Total Semester Hours: 15 Semester 7

- REL 4301 Theories of Religion (3)
- Approved Electives (11)

### Total Semester Hours: 14 Semester 8

- Religious Studies Elective (3)<sup>2</sup>
- Approved Electives (12)

## Total Semester Hours: 15 120 Total Sem. Hrs.

<sup>1</sup> - If two course sequence is taken in the physical sciences, the additional three hour course must be from the life sciences, and vice versa.

<sup>2</sup> - At least 15 of the 27 hours of REL electives/major coursework must be at the 3000-level or above and at least six of the 15 hours must be at the 4000-level (including REL 4301).

## Women's & Gender Studies CRITICAL REQUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: Gen. Ed. Course - Analytical Reasoning. SEMESTER 3: Gen. Ed. Course - Natural Sciences; Admission to the College. SEMESTER 4: Gen. Ed. Course - Humanities. SEMESTER 5: ENGL 2000.

## Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- General Education course Analytical Reasoning (3)
- First Course in Foreign Language Sequence (4)
- General Education course Natural Sciences (3)<sup>1</sup>
- Approved Elective (3-4)

### Total Semester Hours: 16-17

### Semester 2

**CRITICAL:** Gen. Ed. Course - Analytical Reasoning.

- WGS 2500 Introduction to Women's & Gender Studies (3)
- Second Course in Foreign Language Sequence (4)
- General Education course Natural Sciences (3)<sup>1</sup>
- Approved Electives (3-4)

## Total Semester Hours: 13-14 Semester 3

**CRITICAL:** Gen. Ed. Course - Natural Sciences; Admission to the College.

- Third Course in Foreign Language Sequence (4-3)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Arts (3)
- WGS Approved Social Sciences and Humanities Elective (3)
- Approved Elective (3)

## Total Semester Hours: 16-15 Semester 4

CRITICAL: Gen. Ed. Course - Humanities.

- ENGL 2000 English Composition (3)
- WGS 2900 Gender, Race and Nation (3)
- Fourth Course in Foreign Language Sequence (4-3)
- General Education course- Analytical Reasoning (from mathematics) (3)
- General Education course Humanities (3)

## Total Semester Hours: 16-15 Semester 5

CRITICAL: ENGL 2000.

- WGS 3150 Survey of Feminist Theory (3)
- WGS Approved Social Sciences and Humanities Elective (3)
- Approved Cross Cultural Course (3)<sup>2</sup>
- Approved Electives (6)
- Total Semester Hours: 15

## Semester 6

- WGS 4500 Special Topics in Women's & Gender Studies (3)
- General Education course Social Sciences (3)
- WGS Approved Social Sciences and Humanities Elective (3)
- Literature Course from the General Education Humanities List (3)
- Approved Elective (3)

## Total Semester Hours: 15 Semester 7

- WGS 4500 Special Topics in Women's & Gender Studies (3)
- WGS Approved Social Sciences and Humanities Elective (3)
- Approved Electives (9)

### Total Semester Hours: 15

### Semester 8

- WGS Approved Social Sciences and Humanities Electives (6)
- Approved Electives (8)

## Total Semester Hours: 14 120 Total Sem. Hrs.

<sup>1</sup> - If two course sequence is taken in the physical sciences, the additional three hour course must be taken from the life sciences, and vice versa.

<sup>2</sup> - Courses that meet the cross-cultural course requirement must be on the approved list that can be found on the WGS website or be approved by an undergraduate advisor. Students must complete 36 semester hours of course work including three required courses (WGS 2500, WGS 2900, WGS 3150), two Women's & Gender Studies special topics courses (WGS 4500), an approved cross-cultural elective, and 18 additional hours of WGS-approved social sciences and humanities electives, of which nine hours must be at the 3000 level or above. Three of the required General Education Humanities hours must be completed with a WGS-approved literature course from the General Education Humanities list.

## **Linguistics (Interdepartmental Program)**

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OFFICE	155 Hodges Hall
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FAX	225-578-4129
E-MAIL	rorozc1@lsu.edu
WEBSITE	www.lsu.edu/linguistics

The Interdepartmental Program in Linguistics offers an undergraduate minor. Student training is not handled by a single department, but instead is supported by faculty from many different departments and programs. Faculty participating in the program have a strong interest in achieving a better understanding of the nature of human language and how it is acquired and used in order to address, and ultimately solve, the complex language problems of modern societies. They also have a strong interest in language issues that can be studied with the rich linguistic data that Louisiana has to offer.

### **Linguistics Minor**

The undergraduate *minor in linguistics* consists of 18 semester hours, with not more than nine semester hours taken from any one department. At least nine hours must be at the 3000 level or above. Course requirements are as follows:

- one introductory linguistics course from these areas: COMD 2050/LING 2050, ANTH 3060/LING 3060, ENGL 4710/LING 4710;
- \*one from the following four core areas: COMD 4150/LING 4150 (phonetics), ENGL 4713 /LING 4713 (syntax), ENGL 4714/LING 4714 (phonology), ENGL 4715/LING 4715 (semantics);
- *electives* selected from at least two of the three concentration areas below:

Language and Society: Language use across socio-cultural contexts and the relationship between language and culture. AAAS 3341/LING 3341, ANTH 4060/LING 4060, ANTH 4082\*\*, ANTH 4997\*\*, ENGL 3310/LING 3310, ENGL 3716/LING 3716, ENGL 4310/LING 4310, ENGL 4711/LING 4711, ENGL 4712/LING 4712, FREN 3080/LING 3080, FREN 3260/LING 3260, FREN 3280/LING 3280, FREN 4001/LING 4001, LING 4750

Language and Cognition: Language abilities across individuals and the relationship between language and thought. COMD 4153/LING 4153, COMD 4380/LING 4380, LING 4750, PHIL 2010/LING 2010, PHIL 4010/LING 4010, PHIL 4011/LING 4011, PHIL 4914/LING 4914. PSYC 4033\*\*

Language and Applied Linguistics: Applications of linguistics to the teaching of first/second languages and interpretation/translation studies. ENGL 2710/LING 2710, ENGL 3720/LING 3720, FREN 4014/LING 4014, FREN 4015/LING 4015, SPAN 4005/LING 4005, SPAN 4602/LING 4602, SPAN 4603/LING 4603

\* An additional course from the core areas counts towards Language and Cognition.

\*\* These elective courses may be counted if written justification is provided by the instructor and approved by the Director of Linguistics.

For further information, contact rorozc1@lsu.edu.

### **Department of Military Science**

OFFICE106 Military Science/Aerospace Studies BuildingTELEPHONE225-578-2371FAX225-578-3560WEBSITEwww.lsu.edu/milscience

For information on this department's program, see the "Reserve Officers Training Corps" section of this catalog. *Army ROTC Scholarships* • Four-year scholarships are offered for entering freshmen. Two- and three-year on-campus scholarships are also available. Scholarship programs that cover university fees, books, laboratory fees, and related academic expenses along with a monthly subsistence allowance are available for selected students. See the "Reserve Officers Training Corps" chapter and the chapter concerning "Financial Aid and Scholarships" in this catalog for additional information.

### **Professional Leadership Minor**

To graduate with a *minor in professional leadership*, students must complete MILS 3011, MILS 3012, MILS 3013, MILS 4011, MILS 4012, and military history approved by the professor of military science.

## **Department of Philosophy & Religious Studies**

OFFICE	102 Coates Hall
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WEBSITE	http://www.lsu.edu/hss/prs/index.php

## Philosophy

Philosophy is a traditional part of a university education. This department offers a wide range of courses dealing with fundamental philosophical questions and with the history of philosophy. An undergraduate major or minor in philosophy complements the study of linguistics and computer science, and provides background for further study in law, history, literature, medicine, the business disciplines, and other fields.

Some philosophy courses deal with issues that arise in other fields of study and in certain professions and vocations. Such courses include professional ethics, bioethics, philosophy of art, philosophy of science, and philosophy and film. Logic is especially recommended for students in business, mass communication, and prelaw. Ethics courses are especially recommended for students in business, education, engineering, mass communication, pre-law, pre-medicine, nursing, and other health related fields.

Several honors tutorials and seminars are offered for qualified students (PHIL 2034, PHIL 2036), and a special curriculum leading to the BA with departmental honors in philosophy is offered. Details are available from the departmental office. Students with a philosophy major who do not elect a concentration in religious studies are required to complete 27 hours of philosophy courses, including PHIL 2010; PHIL 2020 (or PHIL 2050, or PHIL 3052); PHIL 2033 (or PHIL 2053), and PHIL 2035, plus 15 hours of electives. At least 15 of the 27 hours must be in courses numbered 3000 and above, and at least six of the 15 must be at the 4000 level. Degree credit will not be allowed for more than six hours of courses numbered below 2000.

## **Concentration in Religious Studies**

Students majoring in liberal arts may elect a concentration in religious studies.

The concentration in religious studies is non-confessional and focuses on the study of religion as an academic discipline. It is designed to examine general questions regarding the nature of religion through the study of religious literature and religious practice, and to foster a better understanding and appreciation of religion as a universal component of the human experience. Courses in religious studies bring together perspectives and approaches from a variety of disciplines–including history, philosophy, literature, and anthropology–and students are encouraged to double major or to minor in these or other related fields. Students concentrating in religious studies must complete a minimum of 27 semester hours of religious studies courses. They must take two of the following courses: REL 1000, REL 2000, REL 2027 (or REL 2031), or REL 2029 (REL 2030). They must also take a course in theories of religion (REL 4301), as well as 18 hours of religious studies electives. At least 15 of the 27 hours must be at the 3000 level or above, and of these at least six hours must be at the 4000 level (*including REL 4301*). Some religious studies courses are cross-listed with other departments. These courses should be taken under the Religious Studies rubric (REL) if they are to count toward the 27 hours needed for the major or toward the 15 hours needed for the minor. Please see the Liberal Arts section for more information on the degree requirements for the religious studies concentration.

### **Philosophy Minor**

A minor in philosophy requires 15 hours of philosophy courses, at least six of which must be at the 3000/4000 level.

### Philosophy, B.A.

## Philosophy CRITICAL REQUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001.

SEMESTER 2: Gen. Ed. Analytical Reasoning (from Math Department).

SEMESTER 3: First Course in Foreign Language

Sequence; Admission to the College. SEMESTER 4: One PHIL course.

SEMESTER 4: One PHIL course. SEMESTER 5: One PHIL course; ENGL 2000.

*Consult "General Education" section of the catalog for the general education requirements.* 

\*Distribution requirements for foreign languages will depend upon student placement scores and the specific language chosen. Consult the Degree Requirements of the College for more information. Some adjustment in elective hours may be necessary.

## Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- General Education course Analytical Reasoning (from mathematics) (3)
- First Course in Foreign Language Sequence (4)
- General Education course Natural Sciences (3)<sup>1</sup>
- Approved Electives (3-5)

## Total Semester Hours: 16-18

### Semester 2

**CRITICAL:** Gen. Ed. Analytical Reasoning (from Math Department).

- PHIL 2010 Symbolic Logic I (3)
- Second Course in Foreign Language Sequence (4)
- General Education Courses Natural Sciences (6)<sup>1</sup>

## Total Semester Hours: 13 Semester 3

**CRITICAL:** First Course in Foreign Language Sequence; Admission to the College.

- PHIL 2033 History of Ancient and Medieval Philosophy (3) or
- PHIL 2053 HONORS: History of Ancient and Medieval Philosophy (3)
- Third Course in Foreign Language Sequence (4-3)
- General Education course Humanities (3)
- Approved Elective (3)
- Philosophy Elective (3)<sup>2</sup>

## Total Semester Hours: 16-15

## Semester 4

**CRITICAL:** One PHIL course.

- ENGL 2000 English Composition (3)
- PHIL 2020 Ethics (3) or
- PHIL 2050 HONORS: Ethics (3) or
- PHIL 3052 Moral Philosophy (3)
- PHIL 2035 History of Modern Philosophy (3)
- Approved Elective (3)
- Fourth Course in Foreign Language Sequence (4-3)

## Total Semester Hours: 16-15

## Semester 5

CRITICAL: One PHIL course; ENGL 2000.

- Approved Electives (9)
- Philosophy Elective (3)<sup>2</sup>
- General Education course Social Sciences (3)

### Total Semester Hours: 15 Semester 6

- Philosophy Elective (3)<sup>2</sup>
- General Education course Arts (3)
- General Education course -Social Sciences (2000-level) (3)
- Approved Electives (6)

## Total Semester Hours: 15 Semester 7

- Philosophy Elective (3)<sup>2</sup>
- Approved Electives (12)

## Total Semester Hours: 15 Semester 8

- Philosophy Elective (3)<sup>2</sup>
- Approved Electives (11)

## Total Semester Hours: 14 120 Total Sem. Hrs.

<sup>1</sup> - If two course sequence is taken in the physical sciences, the additional three hour course must be from the life sciences, and vice versa.

<sup>2</sup> - PHILOSOPHY ELECTIVES: A minimum of 15 semester hours must be in courses numbered 3000-level and above, with at least six of the 15 at the 4000-level. Degree credit will not be allowed for more than six hours of courses numbered below 2000.

## Area of Concentration Law, Ethics, and Social Justice CRITICAL REQUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: Gen. Ed. Analytical Reasoning (from Math Department). SEMESTER 3: First Course in Foreign Language Sequence; Admission to the College. SEMESTER 4: One PHIL course. SEMESTER 5: One PHIL course; ENGL 2000. Consult "General Education" section of the catalog for the general education requirements. \*Distribution requirements for foreign languages will depend upon student placement scores and the specific language chosen. Consult the Degree Requirements of the College for more information. Some adjustment in elective hours may be necessary.

### Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- General Education Course Analytical Reasoning (from Mathematics Department) (3)
- First Course in Foreign Language Sequence (4)
- General Education Course Natural Sciences (3)<sup>1</sup>
- Approved Electives (3-5)
- Total Semester Hours: 16-18

### Semester 2

**CRITICAL:** Gen. Ed. Analytical Reasoning (from Math Department).

- PHIL 1021 Introduction to Logic (3)
- Second Course in Foreign Language Sequence (4)
- General Education Courses Natural Sciences (6)<sup>1</sup>

#### Total Semester Hours: 13 Semester 3

**CRITICAL:** First Course in Foreign Language Sequence; Admission to the College.

- PHIL 2020 Ethics (3) or
- PHIL 2050 HONORS: Ethics (3) or
- PHIL 3052 Moral Philosophy (3)
- PHIL 2033 History of Ancient and Medieval Philosophy (3) or
- PHIL 2053 HONORS: History of Ancient and Medieval Philosophy (3)
- General Education Course Humanities (3)
- Third Course in Foreign Language Sequence (4-3)
- Approved Elective (3)
- Total Semester Hours: 16-15 Semester 4

CRITICAL: One PHIL course.

- ENGL 2000 English Composition (3)
- PHIL 2010 Symbolic Logic I (3)
- PHIL 2035 History of Modern Philosophy (3)
- Fourth Course in Foreign Language Sequence (4-3)
- Approved Elective (3)

### Total Semester Hours: 16-15 Semester 5

CRITICAL: One PHIL course; ENGL 2000.

- PHIL Elective  $(3)^2$
- General Education Course Social Sciences (3)
- Approved Electives (9)

#### Total Semester Hours: 15 Semester 6

- PHIL Elective (3)<sup>2</sup>
- General Education Course Arts (3)
- General Education Course Social Sciences (2000-level) (3)
- Approved Electives (6)

#### Total Semester Hours: 15 Semester 7

- PHIL Elective  $(3)^2$
- Approved Electives (12)

### Total Semester Hours: 15 Semester 8

- PHIL Electives (6)<sup>2</sup>
- Approved Electives (8)

# Total Semester Hours: 14 120 Total Sem. Hrs.

<sup>1</sup> - If two course sequence is taken in the physical sciences, the additional three hour course must be from the life sciences, and vice versa.

<sup>2</sup> - PHILOSOPHY ELECTIVES: A minimum of 15 semester hours must be in courses numbered 3000-level and above, with at least six of the 15 at the 4000-level. Degree credit will not be allowed for more than six hours of courses numbered below 2000.

Students concentrating in law, ethics, and social justice are required to complete 30 hours of philosophy courses, including PHIL 1021; PHIL 2010; PHIL 2020 (PHIL 2050 or PHIL 3052); PHIL 2033 (or PHIL 2053); PHIL 2035; PHIL 4947; an elective in ethics (PHIL 4942, PHIL 4943, PHIL 4972, or a special topics course in ethics); an elective in social/political philosophy (PHIL 3062, PHIL 3072, PHIL 4098, PHIL 4945, PHIL 4949, or a special topics course in social/political philosophy); and 6 hours of electives.

## **Department of Political Science**

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WEBSITE	www.lsu.edu/politicalscience

Students *majoring* in political science must complete a minimum of 33 semester hours in political science courses, of which a minimum of 18 hours must be in courses numbered 3000 and above. Field requirements are described in footnote 3 within the recommended path. Students may declare one or two concentrations within the major; a concentration consists of four courses. There are nine different concentrations: four concentrations consisting of four courses in the fields described in footnote 3 in the recommended path: (1) American government and politics; (2) comparative government and politics; (3) international politics and law; and (4) political theory., and five concentrations which have been designed by the department: (1) campaigns and elections; (2) law & legal systems; (3) political analysis; (4) public policy; and (5) race & politics. Only one non-POLI course may count towards a concentration. Students may complete the major without designating a concentration.

POLI 1001, POLI 3001, POLI 3003, POLI 3901, POLI 3909, and POLI 4001 may not be counted toward fulfilling field requirements but may be counted as political science electives.

Honors work is provided through POLI 1002, POLI 2052, POLI 3000, POLI 3809, POLI 3896, POLI 4998, and POLI 4999. A special curriculum leading to the BA with departmental honors in political science is offered. Details are available from the departmental office.

### **Political Science Minor**

The requirements for a *minor in political science* are POLI 2051 and 15 additional hours in political science; six of the 18 hours in political science must be at the 3000 level or above.

### **Political Science, B.A.**

All concentrations follow the same path until Semester 5.

## Political Science CRITICAL REQUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: POLI 2051.

SEMESTER 3: Approved POLI Field Course; First Course in Foreign Language Sequence; Admission to the College. SEMESTER 4: Approved POLI Field Course; Second Course in Foreign Language Sequence.

SEMESTER 5: Approved POLI Field Course.

*Consult "General Education" section of the catalog for the general education requirements.* 

*Consult "Degree Requirements of the College for this college for specific instructions regarding approved electives and foreign language requirements.* A list of approved electives is available from the department.

## Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- General Education course Analytical Reasoning (from mathematics) (3)
- First Course in Foreign Language Sequence (4)
- General Education course Natural Sciences (3)<sup>2</sup>
- POLI 1001 Fundamental Issues of Politics (3) <sup>1</sup>

### Total Semester Hours: 16

### Semester 2

CRITICAL: POLI 2051.

- POLI 2051 American Government (3)
- Second Course in Foreign Language Sequence (4)
- General Education course Humanities (3)
- General Education course Natural Sciences (3)<sup>2</sup>
- Approved Elective (0-2)

## Total Semester Hours: 13-15

### Semester 3

**CRITICAL:** Approved POLI Field Course; First Course in Foreign Language Sequence; Admission to the College.

- Third Course in Foreign Language Sequence (4-3)
- Approved POLI Field Course (3)<sup>3</sup>
- General Education course Natural Sciences (3)<sup>2</sup>
- General Education course Analytical Reasoning (3)
- Approved Elective (3)

## Total Semester Hours: 16-15 Semester 4

# **CRITICAL:** Approved POLI Field Course; Second Course in Foreign Language Sequence.

- ENGL 2000 English Composition (3)
- Fourth Course in Foreign Language Sequence (4-3)
- General Education course Humanities (3)
- Approved POLI Field Course (3)<sup>3</sup>
- Approved Elective (3)

Total Semester Hours: 16-15 Areas of Concentration

### Without Concentration Semester 5

CRITICAL: Approved POLI Field Course

- Approved POLI Field Course (3)<sup>3</sup>
- Approved POLI Course (3)
- General Education Course Social Sciences (3)
- Approved Electives (6)

### Total Semester Hours: 15 Semester 6

- Approved POLI Courses (6)
- General Education Course Humanities (3)
- Approved Electives (6)

### Total Semester Hours: 15 Semester 7

- Approved POLI Courses (6)
- General Education Course Arts (3)
- Approved Electives (6)

### Total Semester Hours: 15 Semester 8

- Approved POLI Course (3)
- Approved Electives (11)

### Total Semester Hours: 14 American Government & Politics Semester 5

- **CRITICAL:** Approved POLI Field Course.
  - Approved POLI Field Course (3)<sup>3</sup>
  - Approved POLI Course (3)
  - General Education Course Social Sciences (3)
  - Approved Electives (6)

### Total Semester Hours: 15 Semester 6

- Second Course in American Government & Politics (3)<sup>3</sup>
- Approved POLI Course (3)
- General Education Course Humanities (3)
- Approved Electives (6)

### Total Semester Hours: 15 Semester 7

- Third Course in American Government & Politics (3)<sup>3</sup>
- Approved POLI Course (3)
- General Education Course Arts (3)
- Approved Electives (6)

### Total Semester Hours: 15 Semester 8

- Fourth Course in American Government & Politics (3)<sup>3</sup>
- Approved Electives (11)

## Total Semester Hours: 14 Comparative Government & Politics Semester 5

CRITICAL: Approved POLI Field Course

- Approved POLI Field Course (3)<sup>3</sup>
- Approved POLI Course (3)
- General Education Course Social Sciences (3)
- Approved Electives (6)

### Total Semester Hours: 15 Semester 6

- Second Course in Comparative Government & Politics (3)<sup>3</sup>
- Approved POLI Course (3)
- General Education Course Humanities (3)
- Approved Electives (6)

# Total Semester Hours: 15

### Semester 7

- Third Course in Comparative Government & Politics (3)<sup>3</sup>
- Approved POLI Course (3)
- General Education Course Arts (3)
- Approved Electives (6)

### Total Semester Hours: 15 Semester 8

- Fourth Course in Comparative Government & Politics (3)<sup>3</sup>
- Approved Electives (11)

## Total Semester Hours: 14 International Politics & Law Semester 5

**CRITICAL:** Approved POLI Field Course

- Approved POLI Field Course (3)<sup>3</sup>
- Approved POLI Course (3)
- General Education Course Social Sciences (3)
- Approved Electives (6)

### Total Semester Hours: 15 Semester 6

- Second Course in International Politics & Law (3)<sup>3</sup>
- Approved POLI Course (3)
- General Education Course Humanities (3)
- Approved Electives (6)

### Total Semester Hours: 15 Semester 7

- Third Course in International Politics & Law (3)<sup>3</sup>
- Approved POLI Course (3)
- General Education Course Arts (3)
- Approved Electives (6)

### Total Semester Hours: 15 Semester 8

- Fourth Course in International Politics & Law (3)<sup>3</sup>
- Approved Electives (11)

## Total Semester Hours: 14 Political Theory Semester 5

CRITICAL: Approved POLI Field Course

- Approved POLI Field Course (3)<sup>3</sup>
- Approved POLI Course (3)
- General Education Course Social Sciences (3)
- Approved Electives (6)

### Total Semester Hours: 15 Semester 6

- Second Course in Political Theory (3)<sup>3</sup>
- Approved POLI Course (3)
- General Education Course Humanities (3)
- Approved Electives (6)

### Total Semester Hours: 15 Semester 7

- Third Course in Political Theory  $(3)^3$
- Approved POLI Course (3)
- General Education Course Arts (3)
- Approved Electives (6)

### Total Semester Hours: 15 Semester 8

- Fourth Course in Political Theory (3)<sup>3</sup>
- Approved Electives (11)

## Total Semester Hours: 14 Campaigns & Elections Semester 5

#### **CRITICAL:** Approved POLI Field Course

- Approved POLI Field Course (3)<sup>3</sup>
- First Course in Campaigns & Elections (3)<sup>4</sup>
- General Education Course Social Sciencs (3)
- Approved Electives (6)

### Total Semester Hours: 15 Semester 6

- Second Course in Campaigns & Elections (3)<sup>4</sup>
- Approved POLI Course (3)
- General Education Course Humanities (3)
- Approved Electives (6)

## Total Semester Hours: 15

### Semester 7

- Third Course in Campaigns & Elections (3)<sup>4</sup>
- Approved POLI Course (3)
- General Education Course Arts (3)
- Approved Electives (6)

### Total Semester Hours: 15 Semester 8

- Fourth Course in Campaigns & Elections (3)<sup>4</sup>
- Approved Electives (11)

### Total Semester Hours: 14 Law & Legal Systems

## Semester 5

**CRITICAL:** Approved POLI Field Course

- Approved POLI Field Course (3)<sup>3</sup>
- First Course in Law & Legal Systems (3)<sup>4</sup>
- General Education Course Social Sciences (3)
- Approved Electives (6)

#### Total Semester Hours: 15 Semester 6

- Second Course in Law & Legal Systems (3)<sup>4</sup>
- Approved POLI Course (3)
- General Education Course Humanities (3)
- Approved Electives (6)

### Total Semester Hours: 15 Semester 7

- Third Course in Law & Legal Systems (3)<sup>4</sup>
- Approved POLI Course (3)
- General Education Course Arts (3)
- Approved Electives (6)

#### Total Semester Hours: 15 Semester 8

- Fourth Course in Law & Legal Systems (3)<sup>4</sup>
- Approved Electives (11)

### Total Semester Hours: 14 Political Analysis Semester 5

#### **CRITICAL:** Approved POLI Field Course

- Approved POLI Field Course (3)<sup>3</sup>
- POLI 3001 Approaches to the Study of Politics (3)
- General Education Course Social Sciences (3)
- Approved Electives (6)

### Total Semester Hours: 15 Semester 6

- POLI 3003 Games and Strategy in Models of Politics (3) or POLI 4001 Research Methods in Political Science (3)
- Approved POLI Course (3)
- General Education Course Humanities (3)
- Approved Electives (6)

#### Total Semester Hours: 15 Semester 7

- POLI 4998 HONORS: Directed Research (1-3)
- Approved POLI Course (3)
- General Education Course Arts (3)
- Approved Electives (6)

### Total Semester Hours: 15 Semester 8

- POLI 4999 HONORS: Thesis (3)
- Approved Electives (11)

### Total Semester Hours: 14

Public Policy

#### Semester 5

CRITICAL: Approved POLI Field Course

- Approved POLI Field Course (3)<sup>3</sup>
- First Course in Public Policy (3)<sup>4</sup>
- General Education Course Social Sciences (3)
- Approved Electives (6)

#### Total Semester Hours: 15 Semester 6

- Second Course in Public Policy (3)<sup>4</sup>
- Approved POLI Course (3)
- General Education Course Humanities (3)
- Approved Electives (6)

### Total Semester Hours: 15 Semester 7

- Third Course in Public Policy  $(3)^4$
- Approved POLI Course (3)
- General Education Course Arts (3)
- Approved Electives (6)

### Total Semester Hours: 15 Semester 8

- Fourth Course in Public Policy (3)<sup>4</sup>
- Approved Electives (11)

### Total Semester Hours: 14 Race & Politics Semester 5 CRITICAL: Approved POLI Field Course

- Approved POLI Field Course (3)<sup>3</sup>
- First Course in Race & Politics (3)<sup>4</sup>
- General Education Course Social Sciences (3)
- Approved Electives (6)

#### Total Semester Hours: 15 Semester 6

- Second Course in Race & Politics (3)<sup>4</sup>
- Approved POLI Course (3)
- General Education Course Humanities (3)
- Approved Electives (6)

### Total Semester Hours: 15 Semester 7

- Third Course in Race & Politics (3)<sup>4</sup>
- Approved POLI Course (3)
- General Education Course Arts (3)
- Approved Electives (6)

### Total Semester Hours: 15 Semester 8

- Fourth Course in Race & Politics (3)<sup>4</sup>
- Approved Electives (11)

### Total Semester Hours: 14 120 Total Sem. Hrs.

<sup>1</sup> - POLI 1001 recommended, but not required. If POLI 1001 is not taken, add three hours of Approved POLI courses.

<sup>2</sup> - If two course sequence is taken in the physical sciences, the additional three hour course must be taken from the life sciences, and vice versa.

<sup>3</sup> - Political Science courses are divided into four fields: (1) American government and politics; (2) Comparative government and politics; (3) International politics and law; and (4) Political theory. All students take *Introduction to American Government* (POLI 2051 or POLI 2052) and must take one course from each of the other three fields. Courses count in fields as follows: American Government & Politics *General:* POLI 2051, POLI 2052, POLI 4000

Political Behavior: POLI 2030, POLI 4026, POLI 4028, POLI 4030, POLI 4031, POLI 4032, POLI 4034, POLI 4035, POLI 4036

Public Law & Jurisprudence: POLI 4020, POLI 4021, POLI 4023

Public Administration: POLI 2070, POLI 4011, POLI

4017 State, Urban, Local Government: POLI 2056, POLI 4015, POLI 4039 **Comparative Government & Politics** General: POLI 2053, POLI 4060, POLI 4062, POLI 4063, POLI 4064 Western Europe: POLI 4074, POLI 4075, POLI 4076, **POLI 4077** Latin America: POLI 4065 Russia and Eastern Europe: POLI 4070, POLI 4072 Asia: POLI 4067, POLI 4079 Africa: POLI 4078 Middle East: POLI 4061 International Politics & Law International Politics: POLI 2057, POLI 4040, POLI 4044, POLI 4045, POLI 4046, POLI 4047, POLI 4048, POLI 4050, POLI 4059 International Law & Organizations: POLI 4041, POLI 4042 Foreign Policy: POLI 4043 Political Theory Political Theory, General: POLI 2060, POLI 4090, POLI 4234 History of Political Thought: POLI 4080, POLI 4081, POLI 4082 Contemporary Political Thought: POLI 4096, POLI 4097, POLI 4098 Each field has a special topics course available that may be taken for up to 6 hours of credit when topics vary. These courses are: POLI 4000 (American Government and Politics); POLI 4040 (International Politics and Law); POLI 4060 (Comparative Government and Politics); and POLI 4090 (Political Theory). In addition, POLI 4996, POLI 4997, POLI 4998, POLI 4999 may count toward a Political Science field with approval of the departmental advisor. <sup>4</sup> - Courses count as follows: Campaigns & Elections Political Behavior: POLI 4026, POLI 4031, POLI 4034 Public Opinion: POLI 4030 Comparative Elections: POLI 4063 Law & Legal Systems American Constitutional Law: POLI 4020, POLI 4021 Judicial Politics: POLI 4023 International Law: POLI 4041 Sociology of Law: SOCL 3371, SOCL 4471 Mass Media Law: MC 3080, MC 3081 Legal Writing: ENGL 3101 **Public Policy** Public Policy, General: POLI 2070, POLI 4035 Topics in Public Policy: POLI 4011, POLI 4015, POLI

4017

Foreign Policy: POLI 4043

Race & Politics

Politics & Elections: POLI 4039 Constitutional & Political Thought: POLI 4021, POLI 4080

*Race and the Media: MC 3333*, MC 3505

Cross-disciplinary Perspectives: HIST 2061, SOCL 2511

### **Department of Psychology**

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Admission to the curriculum in the Department of Psychology requires that a student be admissible to the College of Humanities & Social Sciences and have a GPA of 2.50 or above in all work taken within the LSU system *and* on all work taken overall. For continued enrollment, students *majoring in psychology* must maintain a GPA of 2.50 or above in all work taken within the LSU system and all work taken overall. Students *majoring in psychology* must maintain a GPA of 2.50 or above in all work taken within the LSU system and all work taken overall. Students *majoring in psychology* must take PSYC 2000 or PSYC 2001, PSYC 2005, PSYC 2016, PSYC 2017, PSYC 4005, and PSYC 4008. Students must complete one course in each of four core areas listed below and six additional hours of psychology from the core areas or from the additional electives listed below. Credits earned in the excluded electives listed below may not apply to the 33-credit minimum of required psychology credits, but may apply toward credits for graduation.

### **Psychology Minor**

A student must complete the following 15 hours to graduate with a *minor in psychology*: PSYC 2000 –three hours; two courses from core areas listed below–six hours; two courses from core areas or additional electives listed below–six hours.

- Core Areas:
  - a. Advanced Methods: PSYC 3020 or PSYC 4111
  - b. *Biological Basis*: PSYC 4031 or PSYC 4034 or PSYC 4035 or PSYC 4037.
  - c. Learning and Cognition: PSYC 4030 or PSYC 4032 or PSYC 4033, PSYC 4041
  - d. Developmental Processes: PSYC 4070 or PSYC 4072 or PSYC 4176
  - e. Applied/Social: PSYC 3050 or PSYC 3140 or PSYC 3083 or PSYC 4080
- Additional Electives: PSYC 2040, PSYC 3030, PSYC 3081, PSYC 3082, PSYC 4039, PSYC 4040
- Excluded Electives: PSYC 2060, PSYC 2070, PSYC 2076, PSYC 2078, PSYC 2999, PSYC 4999.

### Psychology, B.S.

### Psychology CRITICAL REQUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001; 2.5 cumulative and LSU GPA.

SEMESTER 2: MATH 1021; 2.5 cumulative and LSU GPA.

SEMESTER 3: PSYC 2000/PSYC 2001; First Course in Foreign Language Sequence; Admission to the College; 2.5 cumulative and LSU GPA.

SEMESTER 4: PSYC 2005; PSYC 2016; Second Course in Foreign Language Sequence; 2.5 cumulative and LSU GPA.

SEMESTER 5: ENGL 2000; PSYC 2017; 2.5 cumulative and LSU GPA.

SEMESTER 7: PSYC 4005

*Consult "General Education" section of the catalog for the general education requirements.* 

Consult "Degree Requirements of the College" for this college for specific instructions regarding approved electives and foreign language requirements.

### Semester 1

**CRITICAL:** "C" or better in ENGL 1001; 2.5 cumulative and LSU GPA.

- ENGL 1001 English Composition (3)
- MATH 1021 College Algebra (3)
- First Course in Foreign Language Sequence (4)
- General Education course Natural Sciences (3)<sup>1</sup>

### • Natural Sciences Lab (0-1)

#### Total Semester Hours: 13-14 Semester 2

**CRITICAL:** MATH 1021; 2.5 cumulative and LSU GPA.

- MATH 1022 Plane Trigonometry (3) or
- MATH 1431 Calculus with Business and Economic Applications (3)
- Second Course in Foreign Language Sequence (4)
- General Education course Humanities (3)<sup>2</sup>
- General Education course Natural Sciences (3)<sup>1</sup>
- Natural Sciences Lab (2-1)

### Total Semester Hours: 15-14 Semester 3

**CRITICAL:** PSYC 2000/PSYC 2001; First Course in Foreign Language Sequence; Admission to the College; 2.5 cumulative and LSU GPA.

- PSYC 2000 Introduction to Psychology (3) or
- PSYC 2001 HONORS: Introduction to Psychology (3)

- PSYC 2005 Introduction to the Psychology Major (1)
- General Education courses Humanities (6)<sup>2</sup>
- General Education course Natural Sciences (3)<sup>1</sup>
- Third Course in Foreign Language Sequence (4-3)

### Total Semester Hours: 17-16 Semester 4

**CRITICAL:** PSYC 2005; PSYC 2016; Second Course in Foreign Language Sequence; 2.5 cumulative and LSU GPA.

- ENGL 2000 English Composition (3)
- PSYC 2016 Statistics for the Behavioral Sciences (4)
- Fourth Course in Foreign Language Sequence (4-3)
- General Education Course Natural Sciences (3)<sup>1</sup>

Total Semester Hours: 14-13

#### Semester 5

**CRITICAL:** ENGL 2000; PSYC 2017; 2.5 cumulative and LSU GPA.

- PSYC 2017 Research Methods in Psychology (4)
- General Education course Arts (3)
- General Education course Social Sciences (from field other than psychology) (3)
- Approved PSYC Elective (3)<sup>3</sup>
- Approved Elective (3)

#### Total Semester Hours: 16

### Semester 6

- PSYC 4008 History of Modern Psychology (3)
- General Education course Social Sciences (from field other than psychology) (3)
- Approved PSYC Elective (3)<sup>3</sup>
- Approved Electives (6)

#### Total Semester Hours: 15

### Semester 7

#### Critical: PSYC 4005

- Approved PSYC Electives (6)<sup>3</sup>
- Approved Electives (9)
- PSYC 4005 Psychology Capstone (1)

### Total Semester Hours: 16 Semester 8

- Approved PSYC Electives (6)<sup>3</sup>
- Approved Electives (8-10)

## Total Semester Hours: 14-16 120 Total Sem. Hrs.

<sup>1</sup> - For General Education Natural Sciences, both physical & life sciences must be taken: six hours in a physical/life sciences sequence and two hours lab credit associated with

the sequence chosen; six hours in an area (phys/life) not previously selected.

 $^2$  - Two General Education Humanities courses must be from history and one from among the literature courses on the General Education Humanities list.

<sup>3</sup> - Students majoring in psychology must take an extra three credit hours of natural sciences lecture and two credit hours of natural sciences laboratory *beyond* the minimum general education natural sciences requirements.

- *Basics* (required of all majors): PSYC 2000 or PSYC 2001; PSYC 2005; PSYC 2016; PSYC 2017; PSYC 4005; and PSYC 4008.
- *Core Areas* (students must complete a course from four areas):
  - a. Advanced Methods: PSYC 3020 or PSYC 4111
  - b. *Biological Basis*: PSYC 4031 or PSYC 4034 or PSYC 4035 or PSYC 4037
  - c. Learning and Cognition: PSYC 4030 or PSYC 4032 or PSYC 4033 or PSYC 4041
  - d. Developmental Processes: PSYC 4070 or PSYC 4072 or PSYC 4176
  - e. *Applied/Social:* PSYC 3050 or PSYC 3083 or PSYC 3140 or or PSYC 4080
- Additional Electives: PSYC 2040, PSYC 3030, PSYC 3081, PSYC 3082, PSYC 4039, PSYC 4040, PSYC 4042.
- *Excluded Electives*: PSYC 2060, PSYC 2070, PSYC 2076, PSYC 2078, PSYC 2999, PSYC 4999. These courses will not count toward the 33 hours required in the major but are permissible electives above the 33-hour minimum. Students choosing the honors option will enroll in three to six hours of PSYC 4999, in addition to the 33 hours required in the major.

### **Screen Arts (Interdepartmental Program)**

OFFICE	136 Allen Hall
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WEBSITE	http://www.lsu.edu/hss/fma

The Screen Arts Program offers an Undergraduate Major and Minor as well as a Graduate Minor. The program is intended to provide students with a unified experience in the large and complex field of film, video, television, and web-based studies and to develop professional knowledge in what is often described as the premier 20th and 21st century art form.

The degree is designed to recognize the range and history of the discipline while also focusing on particular areas that fit students' intellectual interests and aiding their current professional development and employment possibilities. The heart of the program is provided by a robust, core curriculum of theory, history, and production, with further electives designed according to student interest.

This core body of work is contained within a 120-hour degree program that includes a traditional general education component, broad exposure to the study of film and media as well as substantive coursework as noted in the following descriptions of available concentrations in Production, Screenwriting, and History/Theory/Criticism.

For additional requirements for general education courses and approved electives, see "Degree Requirements for the College."

#### **Screen Arts Minor**

To graduate with a *minor in screen arts*, students must complete SCRN 2001 and an additional 15 hours of electives from the following list. At least nine hours must be at the 3000 level or above, and no more than nine hours may be taken in any single department.

- SCRN 3001, SCRN 3010, SCRN 3011, SCRN 3012, SCRN 3014, SCRN 3030, SCRN 3502, SCRN 3503, SCRN 3504, SCRN 3505, SCRN 4001, SCRN 4012, SCRN 4014, SCRN 4015; ARTH 4480; CHIN 2070; CLST 2070; CMST 2012, CMST 3012, CMST 3107, CMST 4107, CMST 4312; ENGL 2009, ENGL 2231, ENGL 3133, ENGL 4009, ENGL 4133, ENGL 4231; FREN 4031; GERM 4046; HIST 4077; ITAL 3502; MC 2700; PHIL 3002, PHIL 4002; SPAN 4201.
- In addition, special topics courses and courses with sections relevant to film and media arts may be accepted for the minor.

For further information, contact Professor James V. Catano, 136 Allen Hall, 225-578-3140.

### Screen Arts, B.A.

- History, Theory, & Criticism
- Production
- Screenwriting

### Areas of Concentration

History, Theory, & Criticism CRITICAL REQUIREMENTS SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: General Education course - Analytical Reasoning. SEMESTER 3: General Education course - Natural Sciences; Admission to the College. SEMESTER 4: First Course in Foreign Language Sequence. SEMESTER 5: ENGL 2000.

### Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- General Education course Analytical Reasoning (3)
- First Course in Foreign Language Sequence (4)
- General Education course Natural Sciences (3)<sup>1</sup>
- Approved Elective (2-3)

#### Total Semester Hours: 15-16

#### Semester 2

**CRITICAL:** General Education course - Analytical Reasoning.

- Second Course in Foreign Language Sequence (4)
- General Education course Natural Sciences (3)<sup>1</sup>
- Approved Electives (7-8)

### Total Semester Hours: 14-15

Semester 3

**CRITICAL:** General Education course - Natural Sciences; Admission to the College.

- SCRN 2001 Introduction to Screen Arts (3)
- ENGL 2231 Reading Film (3)
- Third Course in Foreign Language Sequence (4-3)
- General Education course Analytical Reasoning (from mathematics) (3)
- History, Theory, & Criticism Elective (3)<sup>2</sup>

Total Semester Hours: 16-15

#### Semester 4

- **CRITICAL:** First Course in Foreign Language Sequence.
- ENGL 2000 English Composition (3)
- Fourth Course in Foreign Language Sequence (4-3)

- General Education course Natural Sciences (3)<sup>1</sup>
- Digital Media Elective (3)<sup>3</sup>
- Approved Elective (3)

#### Total Semester Hours: 16-15

#### Semester 5

CRITICAL: ENGL 2000.

- SCRN 3001 Special Topics in Screen Arts (3)
- CMST 3012 History of Film (4)
- General Education course Humanities (3)
- General Education course Social Sciences (3)
- Approved Elective (2)

#### Total Semester Hours: 15 Semester 6

#### Semester 6

- CMST 2040 Introduction to Performing Literature (3)
- ENGL 2423 Introduction to Folklore (3) or
- ANTH 2423 Introduction to Folklore (3)
- SCRN Production Focus Course (3)<sup>4</sup>
- Approved Electives (6)

#### Total Semester Hours: 15 Semester 7

- SCRN 4001 Advanced Topics in Screen Arts (3)
- General Education course Arts (3)
- Area of Concentration Course (3)<sup>2</sup>
- Production Elective (3)<sup>2</sup>
- Approved Elective (3)
- Total Semester Hours: 15

### Semester 8

- Area of Concentration Courses (6)<sup>2</sup>
- Digital Media Theory Elective (3)<sup>5</sup>
- Approved Electives (5)

### Total Semester Hours: 14 120 Total Semester Hours

<sup>1</sup> - If a two-course sequence is taken in the physical sciences, then the three-hour course must be from the life sciences and vice versa.

2- In addition to the nine hours of required core courses (SCRN 2001, SCRN 3001, SCRN 4001), 19 hours of SCRN core courses must be completed, with an additional nine hours in a concentration from one of the three concentration areas: 1) History, Theory, & Criticism; 2) Screenwriting; 3) Production. Nine hours of General Education coursework overlap with major and concentration requirements (CMST 2040, ENGL 2231 = Humanities; ENGL 2423/ANTH 2423 = Social Sciences). Note: This course listing is not exhaustive. Courses from participating departments that are relevant to SCRN may be counted toward the concentration requirements with prior approval from the program director.

#### History, Theory, & Criticism:

- ENGL 3133
- ENGL 3222

- ENGL 4133
- ENGL 4231
- AAAS 2410
- **CHIN 2070**
- CMST 2012
- CMST 3013
- **CMST 3107**
- **CMST 4312**
- **FREN 4031**
- **GERM 4046**
- **SCRN 3001**
- **SCRN 3030**
- **SCRN 3502**
- **SCRN 3503**
- **SCRN 4001**
- PHIL 3002
- **PHIL 4002**
- WGS 2200

#### **Production:**

- SCRN 4001 (Required if the Production Concentration is chosen)
- ENGL 2009 (Required if the Production Concentration is chosen)
- Choose 3 hours from:
  - **SCRN 3010** 0
  - 0 SCRN 3011
  - **SCRN 3012** 0 **SCRN 3014** 0
  - **SCRN 3030** 0
  - 0 SCRN 4012
  - SCRN 4014 0
  - 0 SCRN 4015
  - 0 **THTR 3026**
  - **THTR 3900** 0
  - 0 **THTR 4026**
  - ENGL 4009 0
  - ART 2210 0
  - ART 2220 0
  - ART 2230 0
  - ART 4220 0
  - 0 ART 4230
  - ART 4240 0
  - 0 **THTR 4138**

<sup>3</sup>- Choose three hours from the following: ART 2050, CSC 2463, MUS 2745

- <sup>4</sup>- Choose three hours from the following: SCRN
- 3010, SCRN 3011
- <sup>5</sup>- Choose three hours from the following: ARTH 4468, ARTH 4480, ARTH 4482, ARTH 4484

Production **CRITICAL REQUIREMENTS** SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: General Education course - Analytical Reasoning.

**SEMESTER 3:** General Education course - Natural Sciences; Admission to the College. SEMESTER 4: First Course in Foreign Language Sequence. SEMESTER 5: ENGL 2000.

#### Semester 1

#### CRITICAL: "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3) •
- General Education course - Analytical Reasoning (3)
- First Course in Foreign Language Sequence (4)
- General Education course Natural Sciences (3)<sup>1</sup> Approved Elective (2-3)
- Total Semester Hours: 15-16

### Semester 2

**CRITICAL:** General Education course - Analytical Reasoning.

- Second Course in Foreign Language Sequence (4)
- General Education course Natural Sciences (3)<sup>1</sup> •
- Approved Electives (7-8)

#### Total Semester Hours: 14-15 Semester 3

**CRITICAL:** General Education course - Natural Sciences; Admission to the College.

- SCRN 2001 Introduction to Screen Arts (3)
- ENGL 2231 Reading Film (3)
- Third Course in Foreign Language Sequence (4-3)
- General Education course Analytical Reasoning (from mathematics) (3)
- History, Theory, & Criticism Elective (3)<sup>2</sup>

#### Total Semester Hours: 16-15

#### Semester 4

**CRITICAL:** First Course in Foreign Language Sequence.

- ENGL 2000 English Composition (3) •
- Fourth Course in Foreign Language Sequence (4-3)
- General Education course Natural Sciences (3)<sup>1</sup> •
- Digital Media Elective  $(3)^3$
- Approved Elective (3)

Total Semester Hours: 16-15 Semester 5

CRITICAL: ENGL 2000.

- ٠ SCRN 3001 Special Topics in Screen Arts (3)
- CMST 3012 History of Film (4)
- General Education course Humanities (3)
- General Education course Social Sciences (3)
- Approved Elective (2)

### Total Semester Hours: 15 Semester 6

- CMST 2040 Introduction to Performing Literature (3)
- ENGL 2423 Introduction to Folklore (3) or
- ANTH 2423 Introduction to Folklore (3)
- SCRN Production Focus Course (3)<sup>4</sup>
- Approved Electives (6)
- Total Semester Hours: 15

### Semester 7

- SCRN 4001 Advanced Topics in Screen Arts (3)
- General Education course Arts (3)
- Area of Concentration Course (3)<sup>2</sup>
- Production Elective (3)<sup>2</sup>
- Approved Elective (3)

### Total Semester Hours: 15 Semester 8

- Area of Concentration Courses (6)<sup>2</sup>
- Digital Media Theory Elective (3)<sup>5</sup>
- Approved Electives (5)

### Total Semester Hours: 14 120 Total Semester Hours

<sup>1</sup> - If a two-course sequence is taken in the physical sciences, then the three-hour course must be from the life sciences and vice versa.

<sup>2</sup>- In addition to the nine hours of required core courses (SCRN 2001, SCRN 3001, SCRN 4001), 19 hours of SCRN core courses must be completed, with an additional nine hours in a concentration from one of the three concentration areas: 1) History, Theory, & Criticism; 2) Screenwriting; 3) Production. Nine hours of General Education coursework overlap with major and concentration requirements (CMST 2040, ENGL 2231 = Humanities; ENGL 2423/ANTH 2423 = Social Sciences). Note: This course listing is not exhaustive. Courses from participating departments that are relevant to SCRN may be counted toward the concentration requirements with prior approval from the program director.

### History, Theory, & Criticism:

- ENGL 3133
- ENGL 3222
- ENGL 4133
- ENGL 4231
- AAAS 2410
- CHIN 2070
- CMST 2012
- CMST 3013
- CMST 3107
- CMST 4312
- FREN 4031
- GERM 4046
- SCRN 3001
- SCRN 3030

- SCRN 3502
- SCRN 3503
- SCRN 4001
- PHIL 3002
- PHIL 4002
- WGS 2200

#### **Production:**

- SCRN 4001 (Required if the Production Concentration is chosen)
- ENGL 2009 (Required if the Production Concentration is chosen)
- Choose 3 hours from:

000	e nours nomi
0	SCRN 3010
0	SCRN 3011
0	SCRN 3012
0	SCRN 3014

- SCRN 3030
- o SCRN 4012
- SCRN 4014
- SCRN 4015
- THTR 3026
   THTR 3900
- THTR 4026
- THTR 4138
- o ENGL 4009
- ART 2210
- ART 2220
- ART 2230
- ART 4220
- ART 4230
   ART 4240

<sup>3</sup>- Choose three hours from the following: ART 2050, CSC 2463, MUS 2745

<sup>4</sup>- Choose three hours from the following: SCRN 3010, SCRN 3011

<sup>5</sup>- Choose three hours from the following: ARTH 4468, ARTH 4480, ARTH 4482, ARTH 4484

### Screenwriting

#### **CRITICAL REQUIREMENTS SEMESTER 1:** "C" or better in ENGL 1001.

**SEMESTER 2:** General Education course - Analytical Reasoning.

**SEMESTER 3:** General Education course - Natural Sciences; Admission to the College. **SEMESTER 4:** First Course in Foreign Language

Sequence

SEMESTER 5: ENGL 2000.

### Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- General Education course Analytical Reasoning (3)
- First Course in Foreign Language Sequence (4)
- General Education course Natural Sciences (3)<sup>1</sup>

#### • Approved Elective (2-3)

#### Total Semester Hours: 15-16 Semester 2

**CRITICAL:** General Education course - Analytical Reasoning.

- Second Course in Foreign Language Sequence (4)
- General Education course Natural Sciences (3)<sup>1</sup>
- Approved Electives (7-8)

### Total Semester Hours: 14-15

### Semester 3

**CRITICAL:** General Education course - Natural Sciences; Admission to the College.

- SCRN 2001 Introduction to Screen Arts (3)
- ENGL 2231 Reading Film (3)
- Third Course in Foreign Language Sequence (4-3)
- General Education course Analytical Reasoning (from mathematics) (3)
- History, Theory, & Criticism Elective (3)<sup>2</sup>

#### Total Semester Hours: 16-15

#### Semester 4

**CRITICAL:** First Course in Foreign Language Sequence.

- ENGL 2000 English Composition (3)
- Fourth Course in Foreign Language Sequence (4-3)
- General Education course Natural Sciences (3)<sup>1</sup>
- Digital Media Elective (3)<sup>3</sup>
- Approved Elective (3)

#### Total Semester Hours: 16-15 Semester 5

CRITICAL: ENGL 2000.

- SCRN 3001 Special Topics in Screen Arts (3)
- CMST 3012 History of Film (4)
- General Education course Humanities (3)
- General Education course Social Sciences (3)
- Approved Elective (2)

### Total Semester Hours: 15

### Semester 6

- CMST 2040 Introduction to Performing Literature (3)
- ENGL 2423 Introduction to Folklore (3) or
- ANTH 2423 Introduction to Folklore (3)
- SCRN Production Focus Course (3)<sup>4</sup>
- Approved Electives (6)
- Total Semester Hours: 15

### Semester 7

• SCRN 4001 Advanced Topics in Screen Arts (3)

- General Education course Arts (3)
- Area of Concentration Course  $(3)^2$
- Production Elective (3)<sup>2</sup>
- Approved Elective (3)

#### Total Semester Hours: 15 Semester 8

- Area of Concentration Courses  $(6)^2$
- Digital Media Theory Elective (3)<sup>5</sup>
- Approved Electives (5)

### Total Semester Hours: 14 120 Total Semester Hours

<sup>1</sup> - If a two-course sequence is taken in the physical sciences, then the three-hour course must be from the life sciences and vice versa.

<sup>2</sup>- In addition to the nine hours of required core courses (SCRN 2001, SCRN 3001, SCRN 4001), 19 hours of SCRN core courses must be completed, with an additional nine hours in a concentration from one of the three concentration areas: 1) History, Theory, & Criticism; 2) Screenwriting; 3) Production. Nine hours of General Education coursework overlap with major and concentration requirements (CMST 2040, ENGL 2231 = Humanities; ENGL 2423/ANTH 2423 = Social Sciences). Note: This course listing is not exhaustive. Courses from participating departments that are relevant to SCRN may be counted toward the concentration requirements with prior approval from the program director.

#### History, Theory, & Criticism:

- ENGL 3133
- ENGL 3222
- ENGL 4133
- ENGL 4231
- AAAS 2410
- CHIN 2070
- CMST 2012
- CMST 3013
- CMST 3107
- CMST 4312
- FREN 4031
- GERM 4046
- SCRN 3001
- SCRN 3030
- SCRN 3502
- SCRN 3503
- SCRN 4001
- PHIL 3002
- PHIL 4002
  - WGS 2200
- Screenwriting:
  - ENGL 2009 (Required if the Screenwriting Concentration is chosen)
  - ENGL 4009 (Required if the Screenwriting Concentration is chosen)
    - Choose 3 hours from:
      - ENGL 2005

ENGL 2008 0

- ENGL 2029 0
- 0 ENGL 4000
- 0 SCRN 3030
- CMST 2060 0 CMST 3040 0

#### **Production:**

- SCRN 4001 (Required if the Production • Concentration is chosen)
- ENGL 2009 (Required if the Production • Concentration is chosen)
- Choose 3 hours from: •
  - 0 SCRN 3010
  - 0 SCRN 3011
  - SCRN 3012 0
  - SCRN 3014 0
  - SCRN 3030 0
  - SCRN 4012 0

- SCRN 4014 0
- SCRN 4015 0

THTR 3026 0 0 THTR 3900

THTR 4026 0

THTR 4138 0

- ENGL 4009 0
- ART 2210 0
- ART 2220
- 0 ART 2230
- 0 ART 4220
- 0
- 0 ART 4230

#### ART 4240 0

<sup>3</sup>- Choose three hours from the following: ART 2050, CSC 2463, MUS 2745

<sup>4</sup>- Choose three hours from the following: SCRN

3010, SCRN 3011

- <sup>5</sup>- Choose three hours from the following: ARTH
- 4468, ARTH 4480, ARTH 4482, ARTH 4484

### **Department of Sociology**

OFFICE	126 Stubbs Hall
TELEPHONE	225-578-1645
FAX	225-578-5102
WEBSITE	www.soc.lsu.edu

Functions of the department are to conduct teaching and research in the College of Humanities & Social Sciences and the Graduate School and to provide an undergraduate degree program in sociology including a concentration in criminology. The department is research-oriented and committed to the further development of sociology as a science as well as to the application of sociological principles in societal programs. With respect to its teaching responsibilities, the department contributes to pre-professional preparation of undergraduates and develops professional sociologists at the graduate level. A special program leading to the BA degree with departmental honors in sociology is also offered. Detailed information is available from the departmental office.

### **Sociology Minor**

In order to graduate with a *minor in sociology*, students are required to complete SOCL 2001 and at least 12 additional hours in sociology, six semester hours of which must be in courses at the 3000 level or above.

### Sociology, B.A.

### Sociology CRITICAL REQUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001.

SEMESTER 2: MATH 1021.

SEMESTER 3: "C" or better in SOCL 2001(SOCL 2002); First Course in Foreign Language Sequence; Admission to the College.

SEMESTER 4: "C" or better in SOCL 2201; Second Course in Foreign Language Sequence.

SEMESTER 5: ENGL 2000; "C" or better in SOCL 2211. A grade of "C" or higher must be earned in SOCL 2001, SOCL 2201, SOCL 2211, and SOCL 3101. Sociology majors are strongly advised to schedule all College of Humanities & Social Sciences and departmental lowerlevel requirements in their first two years.

#### Semester 1 CRITICAL: "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- MATH 1021 College Algebra (3)
- First Course in Foreign Language Sequence (4)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Humanities (3)

### Total Semester Hours: 16

### Semester 2

### CRITICAL: MATH 1021

- SOCL 2001 Introductory Sociology (3) or
- SOCL 2002 HONORS: Introductory Sociology (3)
- Second Course in Foreign Language Sequence (4)
- General Education course Analytical Reasoning (3)
- General Education course Natural Sciences (3)<sup>1</sup>

### Total Semester Hours: 13

### Semester 3

**CRITICAL:** "C" or better in SOCL 2001(SOCL 2002); First Course in Foreign Language Sequence; Admission to the College.

- SOCL 2201 Introduction to Statistical Analysis (4)
- Third Course in Foreign Language Sequence (4-3)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Humanities (3)
- Approved Elective (3)

### Total Semester Hours: 17-16 Semester 4

**CRITICAL:** "C" or better in SOCL 2201; Second Course in Foreign Language Sequence.

- ENGL 2000 English Composition (3)
- SOCL 2211 Methods of Sociological Research (3)
- Fourth Course in Foreign Language Sequence (4-3)
- General Education course Humanities (3)
- Approved Elective (2)

### Total Semester Hours: 15-14

#### Semester 5

**CRITICAL:** ENGL 2000; "C" or better in SOCL 2211.

- SOCL 3101 Sociological Theory (3)
- Approved SOCL Elective (3000-level or above) (3)
- General Education course Arts (3)
- General Education course Social Sciences (3)
- Approved Elective (3)

### Total Semester Hours: 15

### Semester 6

- Approved SOCL Elective (3000-level or above) (3)
- Approved Electives (12)

### Total Semester Hours: 15 Semester 7

- Approved SOCL Electives (3000-level or above) (6)
- Approved Electives (8-9)

### Total Semester Hours: 14-15 Semester 8

- Approved SOCL Elective (3000-level or above) (3)
- Approved SOCL Elective (3)
- Approved Electives (9-10)

### Total Semester Hours: 15-16 120 Total Sem. Hrs.

<sup>1</sup> - If two course natural sciences sequence is taken in the physical sciences, the additional three hour natural sciences course must be from the life sciences, and vice versa.

### Area of Concentration Criminology

Criminology is the study of the nature and causes of crime, patterns of crime, and the social control of criminal behavior.

### **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: MATH 1021. SEMESTER 3: "C" or better in SOCL 2001(SOCL 2002); First Course in Foreign Language Sequence; Admission to the College.

SEMESTER 4: "C" or better in SOCL 2201; Second Course in Foreign Language Sequence. SEMESTER 5: ENGL 2000; "C" or better in SOCL 2211. A grade of "C" or higher must be earned in SOCL 2001, SOCL 2201, SOCL 2211, and SOCL 3101. Sociology majors are strongly advised to schedule all College of Humanities & Social Sciences and departmental lowerlevel requirements in their first two years.

### Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- MATH 1021 College Algebra (3)
- First Course in Foreign Language Sequence (4)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Humanities (3)

Total Semester Hours: 16

#### Semester 2

#### CRITICAL: MATH 1021.

- SOCL 2001 Introductory Sociology (3) or
- SOCL 2002 HONORS: Introductory Sociology (3)
- Second Course in Foreign Language Sequence (4)
- General Education course Analytical Reasoning (3)

• General Education course - Natural Sciences (3)<sup>1</sup> Total Semester Hours: 13

Semester 3

**CRITICAL:** "C" or better in SOCL 2001(SOCL 2002); First Course in Foreign Language Sequence; Admission to the College.

- SOCL 2201 Introduction to Statistical Analysis (4)
- Third Course in Foreign Language Sequence (4-3)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Humanities (3)
  - Approved Elective (3)

Total Semester Hours: 17-16 Semester 4

**CRITICAL:** "C" or better in SOCL 2201; Second Course in Foreign Language Sequence.

- ENGL 2000 English Composition (3)
- SOCL 2211 Methods of Sociological Research (3)
- Fourth Course in Foreign Language Sequence (4-3)
- General Education course Humanities (3)
- Approved Elective (2)

Total Semester Hours: 15-14

#### Semester 5

**CRITICAL:** ENGL 2000; "C" or better in SOCL 2211.

- SOCL 3101 Sociological Theory (3)
- SOCL 3371 Sociology of the Criminal Justice System (3)
- General Education course Arts (3)
- General Education course Social Sciences (3)
- Approved Elective (3)
- Total Semester Hours: 15

### Semester 6

- POLI 4020 American Constitutional Law (3) or
- POLI 4021 The American Constitution and Civil Liberties (3) or
- POLI 4023 Judicial Politics (3) [Note: POLI 2051 American Government (3) is a prerequisite for all three courses]
- SOCL 3501 Sociology of Deviance (3)
- Approved Electives (9)

#### Total Semester Hours: 15

#### Semester 7

- SOCL 4461 Criminology (3)
- SOCL 4471 Sociology of Law (3)
- Approved Electives (8-9)
- Total Semester Hours: 14-15

#### Semester 8

- Approved SOCL Elective (3000-level or above) (3)
- Approved SOCL Elective (3)
- Approved Electives (9-10)

### Total Semester Hours: 15-16

#### 120 Total Sem. Hrs.

<sup>1</sup> - If two course natural sciences sequence is taken in the physical sciences, the additional three hour natural sciences course must be from the life sciences, and vice versa.

### 3+3 Pre-Law Programs

LSU students interested in attending LSU's Paul M. Hebert Law Center may take advantage of an exciting initiative called the 3+3 Pre-Law Program housed within the College of Humanities & Social Sciences. Undergraduate students who pursue majors available in this program would complete all of their major coursework, General Education requirements, and college requirements in their first three years of enrollment, saving 32 hours of elective coursework for their senior year. During their final year of undergraduate studies and pending acceptance by the LSU Law Center, the student would enroll at the Law Center in the required first year law coursework. The courses successfully completed in the first year of law school transfer back to complete the requirements of the undergraduate bachelor's degree. The student would graduate with their bachelor's degree during the summer following the completion of the first year law coursework. The student would then complete the final two years of the required law curriculum, thereby finishing a four-year bachelor's degree and a three-year law degree in six years rather than the typical seven. All grades earned in the first year law coursework will be factored into both the undergraduate and law grade point averages. In addition, Louisiana students eligible for the TOPS scholarship could use their TOPS award toward their first year of law school enrollment as long as semesters of eligibility remain.

To participate in the 3+3 Pre-Law program, students would have to be highly motivated in order to successfully complete their undergraduate major coursework in three years instead of four years. In addition, they would prepare for law school admission (i.e., complete the LSAT, complete the admission process, etc.) one year earlier than the traditional student who plans to enter law school. Participation in the 3+3 Pre-Law Program would not guarantee that the student would be admitted to the LSU Law Center.

To facilitate a successful transition through the 3+3 Pre-Law Program, interested students should seek out guidance from the LSU Pre-Law Advisor in the College of Humanities & Social Sciences. For additional information, visit www.lsu.edu/prelaw.

### Anthropology, B.A. (3+3 Pre-Law Program)

### Anthropology CRITICAL REQUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: ANTH 1001/ANTH 1003. SEMESTER 3: ANTH 1001/ANTH 1003; First Course in Foreign Language Sequence; Admission to the College. SEMESTER 4: ANTH Elective course; Second Course in Foreign Language Sequence.

SEMESTER 5: ANTH Elective course; ENGL 2000. Students majoring in anthropology should request the pamphlet entitled "Undergraduate Program in Anthropology" from the departmental office or from their faculty advisor.

### Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- ANTH 1001 Introduction to Physical Anthropology and Prehistory (3) or
- ANTH 1003 Introduction to Cultural and Social Anthropology (3)
- First Course in Foreign Language Sequence (4)
- General Education Course Natural Sciences (3)<sup>1</sup>
- General Education Course Humanities (3)

#### Total Semester Hours: 16

### Semester 2

CRITICAL: ANTH 1001/ANTH 1003.

- ANTH 1001 Introduction to Physical Anthropology and Prehistory (3) or
- ANTH 1003 Introduction to Cultural and Social Anthropology (3)
- Second Course in Foreign Language Sequence (4)
- General Education Course Analytical Reasoning (from Mathematics) (3)
- Approved Electives (3-5)

### Total Semester Hours: 13-15 Semester 3

**CRITICAL:** ANTH 1001/ANTH 1003; First Course in Foreign Language Sequence; Admission to the College.

- ANTH Course (3)<sup>2</sup>
- General Education Course Analytical Reasoning (3)
- Third Course in Foreign Language Sequence (4-3)
- General Education Course Natural Sciences (3)<sup>1</sup>
- Approved Elective (1)

### Total Semester Hours: 14-13 Semester 4

**CRITICAL:** ANTH Elective course; Second Course in Foreign Language Sequence.

- ENGL 2000 English Composition (3)
- Fourth Course in Foreign Language Sequence (4-3)
- General Education Course Natural Sciences (3)<sup>1</sup>
- General Education Course Humanities (3)
- Approved Elective (3)

### Total Semester Hours: 16-15 Semester 5

CRITICAL: ANTH Elective course; ENGL 2000.

- Approved ANTH Electives (6)
- General Education Course Arts (3)
- ANTH Course (3)<sup>2</sup>
- General Education Course Social Sciences (3)

### Total Semester Hours: 15 Semester 6

#### • ANTH Course (3)<sup>2</sup>

- Approved ANTH Elective (3)
- General Education Course Humanities (3)
- General Education Course Social Sciences (2000-level) (3)
- Approved Elective (2)

### Total Semester Hours: 14 Semester 7

• Approved Electives (16)

### Total Semester Hours: 16 Semester 8

• Approved Electives (16)

### Total Semester Hours: 16 120 Total Sem. Hrs.

<sup>1</sup> - If two course sequence is taken in the physical sciences, the additional three hour course must be taken from the life sciences, and vice versa.

<sup>2</sup> - SELECT FROM: ANTH 2015, ANTH 2051, ANTH 3060, ANTH 4040.

### Communication Studies, B.A (3+3 Pre-Law Program) Communication Studies

### **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: CMST 1150; First course in Foreign Language Sequence. SEMESTER 3: CMST 2060; Second course in Foreign Language Sequence; Admission to the College. SEMESTER 4: CMST 2010/CMST 2064 or CMST 2040; General Education Analytical Reasoning.

SEMESTER 5: CMST 2010/CMST 2064 or CMST 2040 Majors in Communication Studies must complete a minimum of 36 semester hours of approved electives in the department. At least 12 of these hours must be numbered 3000 or above. Students should contact the undergraduate advisor to decide on a program of approved electives; see the CMST website for suggestions on topical foci. Twelve hours of core courses are required: CMST 1150; CMST 2060; CMST 2010 or CMST 2064; and CMST 2040. Consult "Degree Requirements of the College" for specific instructions regarding electives and foreign language requirements. Consult the "General Education" section of the catalog for the university's general education requirements.

The department requires that the two course sequence in natural science be accompanied by two hours of corresponding labs.

### Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- CMST 1150 Introduction to Communication Studies (3)
- First Course in Foreign Language Sequence (4)
- General Education Course Natural Sciences (3)<sup>1</sup>
- General Education Course Natural Sciences Lab (0-1)<sup>1</sup>

### Total Semester Hours: 13-14 Semester 2

**CRITICAL:** CMST 1150; First course in Foreign Language Sequence.

- CMST 2060 Public Speaking (3)
- Second Course in Foreign Language Sequence (4)
- General Education Course Analytical Reasoning (from Mathematics) (3)
- General Education Course Natural Sciences (3)<sup>1</sup>
- General Education Course Natural Sciences Lab (2-1)<sup>1</sup>
- Approved Elective (1)

### Total Semester Hours: 15-14

### Semester 3

**CRITICAL:** CMST 2060; Second course in Foreign Language Sequence; Admission to the College.

- CMST 2010 Interpersonal Communication (3) or
- CMST 2064 Small Group Communication (3)
- Third Course in Foreign Language Sequence (4-3)

- General Education Course Natural Sciences (3)<sup>1</sup>
- General Education Course Arts (3)
- General Education Course Humanities (3)
- Approved Elective (0-2)

#### Total Semester Hours: 16-17

#### Semester 4

**CRITICAL:** CMST 2010/CMST 2064 or CMST 2040; General Education Analytical Reasoning.

- CMST 2040 Introduction to Performing Literature (3)
- ENGL 2000 English Composition (3)
- Fourth Course in Foreign Language Sequence (4-3)
- General Education Course Analytical Reasoning (3)

### Total Semester Hours: 13-12 Semester 5

CRITICAL: CMST 2010/CMST 2064 or CMST 2040.

- Approved CMST Electives (9)
- General Education Course Humanities (3)
- General Education Course Social Sciences (3)

### Total Semester Hours: 15 Semester 6

- Approved CMST Electives (9)
- General Education Course Humanities (3)
- General Education Course Social Sciences (2000-level) (3)

### Total Semester Hours: 15 Semester 7

- Approved CMST Elective (3)<sup>2</sup>
- Approved Electives (13)

### Total Semester Hours: 16 Semester 8

- Approved CMST Elective (3) <sup>2</sup>
- Approved Electives (13)

## Total Semester Hours: 16 120 Total Sem. Hrs.

<sup>1</sup> - For General Education Natural Sciences, both physical & life sciences must be taken: six hours in a physical/life sciences SEQUENCE and two hours lab credit associated with the sequence chosen; three hours in an area (phys/life) not previously selected.

<sup>2</sup> - Six hours of first year law coursework will substitute for six hours of CMST major coursework.

### English, B.A. (3+3 Pre-Law Program)

• Creative Writing

- Literature
- Rhetoric, Writing & Culture

### **Creative Writing**

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: Course from INTRO TO LITERARY STUDY.

SEMESTER 3: Course from INTRO TO LITERARY STUDY; Admission to the College. SEMESTER 4: ENGL 2000; Course from INTRO WRITING. SEMESTER 5: First Course in Foreign Language Sequence; Course from BRITISH/AMERICAN/POSTCOLONIAL LITERATURE SURVEY.

### Semester 1

CRITICAL: "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- First Course in Foreign Language Sequence (4)
- General Education Course Analytical Reasoning (from Mathematics) (3)
- General Education Course Natural Sciences Sequence (3)<sup>1</sup>
- General Education Course Humanities (other than English or foreign language) (3)

### Total Semester Hours: 16

### Semester 2

**CRITICAL:** Course from INTRO TO LITERARY STUDY.

- Intro to Literary Study (3)<sup>2</sup>
- General Education Course Natural Sciences Sequence (3)<sup>1</sup>
- Second Course in Foreign Language Sequence (4)
- Approved Electives (3-5)

### Total Semester Hours: 13-15 Semester 3

**CRITICAL:** Course from INTRO TO LITERARY STUDY; Admission to the College.

- Intro to Literary Study (3)<sup>2</sup>
- Intro Writing (3)<sup>3</sup>
- Third Course in Foreign Language Sequence (4-3)
- General Education course Natural Sciences (3)<sup>1</sup>

### Total Semester Hours: 13-12 Semester 4

**CRITICAL:** ENGL 2000; Course from INTRO WRITING.

• ENGL 2000 English Composition (3)

- Fourth Course in Foreign Language Sequence (4-3)
- General Education Course Arts (3)
- General Education Course Analytical Reasoning (3)
- General Education Course Social Sciences (3)

### Total Semester Hours: 16-15

### Semester 5

**CRITICAL:** First Course in Foreign Language Sequence; Course from BRITISH/AMERICAN/POSTCOLONIAL LITERATURE SURVEY.

- Intro Writing (3)<sup>3</sup>
- British/American/Postcolonial Literature Survey (3)<sup>4</sup>
- Area of Concentration Course (3)<sup>5</sup>
- Area of Concentration Course (3)<sup>6</sup>
- General Education course Social Sciences (2000-level) (3)

### Total Semester Hours: 15 Semester 6

- ENGL 4102 Capstone Seminar in Writing Poetry (3) <sup>7</sup> or
- ENGL 4105 Capstone Seminar in Writing Fiction (3) <sup>7</sup> or
- ENGL 4109 Capstone Seminar in Screenwriting (3) <sup>7</sup> or
- British/American/Postcolonial Literature Survey (3)<sup>4</sup>
- Area of Concentration Course (3)<sup>6</sup>
- Upper Division English Elective (3)

#### Total Semester Hours: 15

### Semester 7

• Approved Electives (16)

### Total Semester Hours: 16 Semester 8

• Approved Electives (16)

## Total Semester Hours: 16 120 Total Sem. Hrs.

<sup>1</sup> - If two course sequence is taken in the physical sciences, the additional three hour course must be taken from the life sciences, and vice versa.

<sup>2</sup> - Choose six hours from the following: ENGL 2025, ENGL 2027, ENGL 2029, ENGL 2123/ ENGL 2201, ENGL 2148, ENGL 2202, ENGL 2220, or ENGL 2270
<sup>3</sup> - Choose six hours from the following: ENGL 2005, ENGL 2007, ENGL 2008, or ENGL 2009
<sup>4</sup> - Choose nine hours from the following: ENGL 3020, ENGL 3022, ENGL 3070, ENGL 3072, or ENGL 3080.

<sup>5</sup> - Choose three hours from the following: ENGL

4137, ENGL 4147, or ENGL 4148

<sup>6</sup> - Choose six hours from the following: ENGL 4000, ENGL 4001, ENGL 4005, ENGL 4006, ENGL 4007, ENGL 4008 or ENGL 4009
<sup>7-</sup> ENGL 4102 prerequisite is ENGL 4007; ENGL 4105 prerequisite is ENGL 4005; ENGL 4109 prerequisite is ENGL 4009.

### Literature

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: Course from INTRO TO LITERARY STUDY. SEMESTER 3: Course from INTRO TO LITERARY STUDY; Admission to the College. SEMESTER 4: ENGL 2000; Course from BRITISH/AMERICAN/POSTCOLONIAL LITERATURE SURVEY. SEMESTER 5: First Course in Foreign Language Sequence; Course from BRITISH/AMERICAN/POSTCOLONIAL LITERATURE SURVEY.

### Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- First Course in Foreign Language Sequence (4)
- General Education Course Analytical Reasoning (from Mathematics) (3)
- General Education Course Natural Sciences Sequence (3)<sup>1</sup>
- General Education Course Humanities (other than English or foreign language) (3)

### **Total Semester Hours: 16**

### Semester 2

**CRITICAL:** Course from INTRO TO LITERARY STUDY.

- Intro to Literary Study (3)<sup>2</sup>
- General Education Course Natural Sciences Sequence (3)<sup>1</sup>
- Second Course in Foreign Language Sequence (4)
- Approved Electives (3-5)

### Total Semester Hours: 13-15

### Semester 3

**CRITICAL:** Course from INTRO TO LITERARY STUDY; Admission to the College.

- Intro to Literary Study (3)<sup>2</sup>
- British/American/Postcolonial Literature Survey (3)<sup>3</sup>
- Third Course in Foreign Language Sequence (4-3)
- General Education course Natural Sciences (3)<sup>1</sup>

### Total Semester Hours: 13-12

### Semester 4

**CRITICAL:** ENGL 2000; Course from BRITISH/AMERICAN/POSTCOLONIAL LITERATURE SURVEY.

- ENGL 2000 English Composition (3)
- Fourth Course in Foreign Language Sequence (4-3)
- General Education Course Arts (3)
- General Education Course Analytical Reasoning (3)
- General Education Course Social Sciences (3)

### Total Semester Hours: 16-15

#### Semester 5

**CRITICAL:** First Course in Foreign Language Sequence; Course from BRITISH/AMERICAN/POSTCOLONIAL LITERATURE SURVEY.

- ENGL 3024 Criticism (3) or
- ENGL 3084 Modern Criticism (3)
- British/American/Postcolonial Literature Survey (3)<sup>3</sup>
- Area of Concentration Course (3)<sup>4</sup>
- Upper Division English Elective (3)<sup>5</sup>
- General Education course Social Sciences (2000-level) (3)

### Total Semester Hours: 15

### Semester 6

- ENGL 4104 Capstone Seminar in Literature (3)
- Area of Concentration Course (3)<sup>4</sup>
- British/American/Postcolonial Literature Survey (3)<sup>3</sup>
- Upper Division English Electives (6)

### Total Semester Hours: 15

### Semester 7

• Approved Electives (16)

### Total Semester Hours: 16 Semester 8

• Approved Electives (16)

## Total Semester Hours: 16 120 Total Sem. Hrs.

<sup>1</sup> - If two course sequence is taken in the physical sciences, the additional three hour course must be taken from the life sciences, and vice versa.

<sup>2</sup> - Choose six hours from the following: ENGL
 2024/ENGL 2824 , ENGL 2025, ENGL 2027, ENGL
 2029 ,ENGL 2123/ENGL 2823 , ENGL 2148 ,ENGL
 2201, ENGL 2202, ENGL 2220,ENGL 2270, or ENGL
 2300

<sup>3</sup> - Choose nine hours from the following: ENGL 3020, ENGL 3022, ENGL 3070, ENGL 3072, or ENGL 3080.

<sup>4</sup> - Choose three hours from the following: ENGL 2593, ENGL 2673, ENGL 2674, ENGL 3080, ENGL 3593 ,ENGL 3674, ENGL 4593, ENGL 4674 , orENGL 4680; and choose three hours from ENGL 4137, ENGL 4147, or ENGL 4148

<sup>5</sup> - Nine hours of upper-division English electives, three of which must be at the 4000-level.

### Rhetoric, Writing and Culture **CRITICAL REOUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: Course from INTRO TO LITERARY STUDY

SEMESTER 3: ENGL 2300; Admission to the College. SEMESTER 4: ENGL 2000: Course from LOWER-LEVEL RW&C CORE.

SEMESTER 5: First Course in Foreign Language Sequence; Course from

BRITISH/AMERICAN/POSTCOLONIAL LITERATURE SURVEY.

### Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3) ٠
- First Course in Foreign Language Sequence (4)
- General Education Course Analytical Reasoning (from Mathematics) (3)
- General Education Course Natural Sciences Sequence  $(3)^1$
- General Education Course Humanities (other than English or foreign language) (3)

### **Total Semester Hours: 16**

### Semester 2

**CRITICAL:** Course from INTRO TO LITERARY STUDY.

- ENGL 2300 Interpreting Discourse (3)
- Intro to Literary Study  $(3)^2$
- General Education Course Natural Sciences Sequence  $(3)^1$
- Second Course in Foreign Language Sequence (4)
- Approved Elective (0-2)

### **Total Semester Hours: 13-15** Semester 3

CRITICAL: ENGL 2300; Admission to the College.

- Approved Elective (3)
- Lower Level Rhetoric, Writing & Culture Core  $(3)^3$
- Third Course in Foreign Language Sequence (4-3)
- General Education course Natural Sciences (3)<sup>1</sup>

### Total Semester Hours: 13-12 Semester 4

CRITICAL: ENGL 2000; Course from LOWER-LEVEL RW&C CORE.

- ENGL 2000 English Composition (3)
- Fourth Course in Foreign Language Sequence (4-
- General Education Course Arts (3)
- General Education Course Analytical Reasoning (3)
- General Education Course Social Sciences (3)

### Total Semester Hours: 16-15 Semester 5

**CRITICAL:** First Course in Foreign Language Sequence; Course from BRITISH/AMERICAN/POSTCOLONIAL LITERATURE SURVEY.

- Upper Level Rhetoric, Writing & Culture Core  $(3)^4$
- British/American/Postcolonial Literature Survey  $(3)^3$
- Area of Concentration Course (3)<sup>5</sup>
- Upper Division English Elective (3)
- General Education course Social Sciences (2000-level) (3)

### Total Semester Hours: 15 Semester 6

- Area of Concentration Course  $(3)^5$
- Rhetoric, Writing & Culture Core (3)<sup>4</sup>
- Upper Division English Electives (6)
- Approved Elective (3)

### **Total Semester Hours: 15** Semester 7

- ENGL 4304 Capstone Seminar in Rhetoric, Writing, and Culture (3)<sup>6</sup>
- Approved Electives (13)

### Total Semester Hours: 16

### Semester 8

• Approved Electives (16)

### **Total Semester Hours: 16** 120 Total Sem. Hrs.

<sup>1</sup> - If two course sequence is taken in the physical sciences, the additional three hour course must be taken from the life sciences, and vice versa.

<sup>2</sup> - Choose three hours from the following: ENGL 2025, ENGL 2027, ENGL 2029, ENGL 2123/ENGL 2823, ENGL 2148, ENGL 2201, ENGL 2202, ENGL 2220, or ENGL 2270.

<sup>3</sup> - Choose six hours from the following:

Lower Level RW&C Core: three hours from ENGL 2012, ENGL 2024/ENGL 2824, ENGL 2423, or ENGL 2710;

British/American/Postcolonial Literature Survey Courses: three hours from ENGL 3020, ENGL 3022, ENGL 3070, ENGL 3072, or ENGL 3080.

<sup>4</sup> - Choose six hours from the following: three hours from ENGL 3024, ENGL 3084, ENGL 3384; three hours from ENGL 3300, ENGL 3301, ENGL 3310, ENGL 3401, ENGL 3716, ENGL 3720, or ENGL 4710.

<sup>5</sup> - Choose six hours from the following: ENGL 4300, ENGL 4301, ENGL 4302, ENGL 4310, ENGL 4475, ENGL 4493, ENGL 4711/ENGL 4712, or ENGL 4713/ENGL 4715.

<sup>6</sup> - Three hours of first year law coursework will substitute for ENGL 4304 Capstone Seminar in Rhetoric, Writing, and Culture.

### French, B.A. (3+3 Pre-Law Program) French

### **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001; FREN 2101/FREN 2201.

SEMESTER 2:FREN 2102/FREN 2202.

SEMESTER 3: FREN 2155; Admission to the College. SEMESTER 4: ENGL 2000.

For a major in French, students must complete a minimum of 36 semester hours in French courses numbered above 2000 with at least a 2.00 GPA.

Consult "Degree Requirements of the College" in this section of the catalog for specific instructions regarding requirements, electives and foreign language requirements. Consult "General Education" section of the catalog for the general education requirements.

\*\* To participate in the 3+3 option in French, a student must enter LSU with at least eight hours of course credit in FREN 1001/FREN 1201 and FREN 1002/FREN 1202 via Advanced Standing or dual enrollment. Students who meet this standard should consult with the Director of Undergraduate Studies in French each semester to discuss sequencing in the major coursework. This consultation will be required to ensure that the student remains on track to finish their French coursework in a timely manner.\*\*

### Semester 1

CRITICAL: "C" or better in ENGL 1001; FREN 2101/FREN 2201.

- ENGL 1001 English Composition (3) •
- FREN 2101 Intermediate French (3) or
- FREN 2201 Intermediate Cajun French (3)
- General Education Course Analytical Reasoning (from Mathematics Department) (3)
- General Education Course Natural Sciences Sequence  $(3)^1$
- Approved Elective (2)

**Total Semester Hours: 14** Semester 2

#### CRITICAL: FREN 2102/FREN 2202.

- FREN 2102 Intermediate French (3) or
- FREN 2202 Intermediate Cajun French (3)
- General Education Course Humanities (3)
- General Education Course Natural Sciences Sequence  $(3)^1$
- Approved Elective (3)

#### Total Semester Hours: 12

#### Semester 3

CRITICAL: FREN 2155; Admission to the College.

- FREN 2155 Readings in French Literature (3)
- General Education Course Analytical Reasoning (3)
- FREN 3060 Advanced French Grammar and Composition (3)
- General Education Course Natural Sciences Course  $(3)^1$
- Approved Elective (3)

### **Total Semester Hours: 15** Semester 4 CRITICAL: ENGL 2000.

- ENGL 2000 English Composition (3)
- FREN 3058 Advanced Oral Communication (3)
- FREN 3071 Survey of French Literature (3)
- FREN 3080 French Culture and Civilization (3)
- General Education Course Humanities (3)
- Total Semester Hours: 15

### Semester 5

- FREN 3072 Survey of French Literature (3)
- General Education Course Social Sciences (3)
- FREN 3000/4000 Electives (6)

### **Total Semester Hours: 12**

### Semester 6

- FREN 4003 Senior Seminar (3)
- FREN 3000/4000 Elective (3)
- General Education Course Social Sciences (2000-level) (3)
- General Education Course Arts (3)

#### **Total Semester Hours: 12**

### Semester 7

Approved Electives (16)

### **Total Semester Hours: 16** Semester 8

• Approved Electives (16)

**Total Semester Hours: 16** 120 Total Sem. Hrs.

<sup>1</sup> - If two-course sequence is taken in the physical sciences, the additional three-hour course must be taken from the life sciences, and vice versa.

### Geography, B.A. (3+3 Pre-Law Program) Geography, B.A. CRITICAL REQUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: GEOG 1001 or GEOG 1003. SEMESTER 3: GEOG 2050 or GEOG 2051; First Course in Foreign Language Sequence; Admission to the College. SEMESTER 4: GEOG 2010 or GEOG 2040; Second Course in Foreign Language Sequence. SEMESTER 5: GEOG 2050/GEOG 2051/GEOG 2055; ENGL 2000.

Consult "Degree Requirements of the College" in this section of the catalog for specific instructions regarding electives and the "General Education Requirements" section of the catalog.

### Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- GEOG 1001 Human Geography: Americas and Europe (3) or
- GEOG 1003 Human Geography: Africa and Asia (3)
- First Course in Foreign Language Sequence (4)
- General Education Course Analytical Reasoning (from Mathematics) (3)
- GEOG 2050 Physical Geography: The Atmosphere (3) or
- GEOG 2051 Physical Geography: Land and Water Surfaces, Plant and Animal Realms (3)

### Total Semester Hours: 16 Semester 2

CRITICAL: GEOG 1001 or GEOG 1003.

- GEOG 2050 Physical Geography: The Atmosphere (3) or
- GEOG 2051 Physical Geography: Land and Water Surfaces, Plant and Animal Realms (3)
- Second Course in Foreign Language Sequence (4)
- General Education Course Analytical Reasoning (3)
- General Education Course Humanities (other than foreign language) (3)

### Total Semester Hours: 13 Semester 3

**CRITICAL:** GEOG 2050 or GEOG 2051; First Course in Foreign Language Sequence; Admission to the College.

- GEOG 2010 Human Geography (3)
- GEOG 2040 Geospatial Technology (3)
- Third Course in Foreign Language Sequence (4-3)
- General Education Course Humanities (other than foreign language) (3)
- General Education Course Life Sciences Lecture (3)

## Total Semester Hours: 16-15

### Semester 4

**CRITICAL:** GEOG 2010 or GEOG 2040; Second Course in Foreign Language Sequence.

- ENGL 2000 English Composition (3)
- Fourth Course in Foreign Language Sequence (4-3)
- General Education Course Social Sciences (2000-level) (3)
- Approved Electives (5-7)

### Total Semester Hours: 15-16

### Semester 5

**CRITICAL: GEOG 2050/GEOG 2051/GEOG 2055;** ENGL 2000.

- GEOG Elective: Regional Group (3)<sup>2</sup>
- General Education course Arts (3)
- Upper Division Geography Elective (3)
- Approved Electives (5)

### Total Semester Hours: 14 Semester 6

- GEOG Electives: Systematic Group (6)<sup>3</sup>
- GEOG Elective: Mapping Sciences (3)<sup>1</sup>
- General Education course Humanities (other than foreign language) (3)
- Approved Electives (2)

### Total Semester Hours: 14 Semester 7

• Approved Electives (16)

### Total Semester Hours: 16 Semester 8

• Approved Electives (16)

### Total Semester Hours: 16

### 120 Total Sem. Hrs.

<sup>1</sup> - MAPPING SCIENCES: GEOG 4020, GEOG 4041, GEOG 4044, GEOG 4045, GEOG 4046, GEOG 4047, GEOG 4048.

<sup>2</sup> - REGIONAL GROUP: ANTH 4051; GEOG 3001, GEOG 4002, GEOG 4031, GEOG 4037, GEOG 4052, or other approved regional course.
<sup>3</sup> - SYSTEMATIC GROUP: GEOG 2080, GEOG 4061, GEOG 3070, GEOG 4073, GEOG 4074, GEOG 4077, GEOG 4078, GEOG 4079, GEOG 4080, GEOG 4086, GEOG 4087, GEOG 4090, or other approved systematic geography course

### Geography, B.S. (3+3 Pre-Law Program) Geography, B.S. CRITICAL REOUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: GEOG 1001/GEOG 1003;MATH 1021. SEMESTER 3: GEOG 2050/GEOG 2051 ; First Course in Foreign Language Sequence; Admission to the College. SEMESTER 4: Second Course in Foreign Language Sequence.

SEMESTER 5: GEOG 2040; ENGL 2000.

### Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- GEOG 1001 Human Geography: Americas and Europe (3) or
- GEOG 1003 Human Geography: Africa and Asia (3)
- First Course in Foreign Language Sequence (4)
- MATH 1021 College Algebra (3)
- GEOG 2050 Physical Geography: The Atmosphere (3) or
- GEOG 2051 Physical Geography: Land and Water Surfaces, Plant and Animal Realms (3)

### Total Semester Hours: 16 Semester 2

**CRITICAL:** GEOG 1001or GEOG 1003; MATH 1021.

- GEOG 2050 Physical Geography: The Atmosphere (3) or
- GEOG 2051 Physical Geography: Land and Water Surfaces, Plant and Animal Realms (3)
- Second Course in Foreign Language Sequence (4)
- General Education Course Life Sciences Lecture (3)
- General Education Course Humanities (other than foreign language) (3)

### Total Semester Hours: 13 Semester 3

**CRITICAL:** GEOG 2050/GEOG 2051; First Course in Foreign Language Sequence; Admission to the College.

- CSC 1250 Introduction to Programming (3) or
- CSC 1253 Computer Science I with C++ (3)
- MATH 1022 Plane Trigonometry (3)
- Third Course in Foreign Language Sequence (4-3)
- General Education Course Social Sciences (Other than GEOG; 2000-level) (3)
- General Education Course Humanities (other than foreign language) (3)

### Total Semester Hours: 16-15

#### Semester 4

**CRITICAL:** Second Course in Foreign Language Sequence.

- GEOG 2040 Geospatial Technology (3)
- ENGL 2000 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- Fourth Course in Foreign Language Sequence (4-3)

### Total Semester Hours: 15-14

#### Semester 5

CRITICAL: GEOG 2040; ENGL 2000.

- EXST 2201 Introduction to Statistical Analysis (4)
- GEOG Electives: Mapping Sciences or Physical (6-9)
- General Education course Arts (3)

### Total Semester Hours: 13-16 Semester 6

- GEOG Electives: Mapping Sciences or Physical (9-6)
- Science Elective (3000-level or above and other than GEOG) (3)
- General Education course Humanities (other than foreign language) (3)
- Approved Electives (0-2)

### Total Semester Hours: 15-14 Semester 7

- GEOG Electives: Mapping Sciences or Physical (3)<sup>3</sup>
- Approved Electives (13)

### Total Semester Hours: 16 Semester 8

• Approved Electives (16)

### Total Semester Hours: 16

### 120 Total Sem. Hrs.

<sup>1</sup> - Mapping Sciences: GEOG 4020 GEOG 4044 GEOG 4045 GEOG 4046 GEOG 4047 GEOG 4048
<sup>2</sup> - Physical Geography: GEOG 2080, GEOG 3013 GEOG 3070 GEOG 4014 GEOG 4015 GEOG 4016 GEOG 4018 GEOG 4022 GEOG 4024 GEOG 4029 GEOG 4041 GEOG 4083 GEOG 4221

<sup>3</sup>- Three hours of first-year law coursework will substitute for three hours of the Geography major coursework in either mapping or physical sciences.

### History, B.A. (3+3 Pre-Law Program) History

### **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: HIST 1001/HIST 1005 or HIST 1003/HIST 1007.

SEMESTER 3: HIST 1001/HIST 1005 or HIST 1003/HIST 1007; First Course in Foreign Language Sequence; Admission to the College.

SEMESTER 4: HIST 2055/HIST 2057; Second Course in

Foreign Language Sequence. SEMESTER 5: HIST 2055/HIST 2057; ENGL 2000. Students majoring in history must complete 33 semester hours, including HIST 1001 or HIST 1005, HIST 1003 or HIST 1007, HIST 2055, HIST 2057, and at least 15 semester hours in history courses 3000 or above. No more than 12 of the 15 may be taken in any one of the following general subject areas: U.S. History, European History, and non-Western Developing Nations History (Latin America, East Asia, South Asia, Africa, and the Middle East). The remaining six hours of history courses must be taken at the 2000 level or above. Students majoring in history must also complete six semester hours of approved literature courses unless they are following the concentration in Secondary Education. Fundamental courses in economics, geography, political science, psychology, and sociology are also recommended.

Consult "Degree Requirements of the College" in this section of the catalog for specific instructions regarding approved electives and foreign language requirements. Consult "General Education" section of the catalog for the general education requirements.

### Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- HIST 1001 Western Civilization to 1500 (3) or
- HIST 1005 World History to 1500 (3) or
- HIST 1003 Western Civilization Since 1500 (3)
- HIST 1007 World History Since 1500 (3)
- First Course in Foreign Language Sequence (4)
- General Education Course Analytical Reasoning (from Mathematics) (3)

• General Education Course - Natural Sciences (3)<sup>1</sup>

### Total Semester Hours: 16

#### Semester 2

**CRITICAL:** HIST 1001/HIST 1005 or HIST 1003/HIST 1007.

- HIST 1001 Western Civilization to 1500 (3) or
- HIST 1005 World History to 1500 (3) or
- HIST 1003 Western Civilization Since 1500 (3) or
- HIST 1007 World History Since 1500 (3)
- Second Course in Foreign Language Sequence (4)
- General Education Course Arts (3)
- General Education Course Natural Sciences (3)<sup>1</sup>

#### **Total Semester Hours: 13**

#### Semester 3

**CRITICAL:** HIST 1001/HIST 1005 or HIST 1003/HIST 1007; First Course in Foreign Language Sequence; Admission to the College.

- HIST 2055 The United States to 1865 (3) or
- HIST 2057 The United States from 1865 to the Present (3)
- Third Course in Foreign Language Sequence (4-3)
- General Education Course Analytical Reasoning (3)
- General Education Course Natural Sciences (3)<sup>1</sup>
- Approved Literature Course (3)

### Total Semester Hours: 16-15

### Semester 4

**CRITICAL:** HIST 2055/HIST 2057; Second Course in Foreign Language Sequence.

- ENGL 2000 English Composition (3)
- HIST 2055 The United States to 1865 (3) or
- HIST 2057 The United States from 1865 to the Present (3)
- Approved Literature Course (3)
- Fourth Course in Foreign Language Sequence (4-3)
- Approved History Elective (3)
- Total Semester Hours: 16-15

### Semester 5

- CRITICAL: HIST 2055/HIST 2057; ENGL 2000.
  - Approved History Electives (9)
  - General Education Course Social Sciences (3)
  - Approved Elective (0-1)

### Total Semester Hours: 12-13

### Semester 6

- Approved History Electives (9)
- General Education Course Humanities (3)
- General Education Course Social Sciences (2000-level) (3)
- Approved Elective (0-1)

### Total Semester Hours: 15-16 Semester 7

• Approved Electives (16)

### Total Semester Hours: 16 Semester 8

• Approved Electives (16)

### Total Semester Hours: 16 120 Total Sem. Hrs.

<sup>1</sup> - If two course sequence is taken in the physical sciences, the additional three hour course must be taken from the life sciences, and vice versa.

### International Studies, B.A.: Global Diplomacy Concentration (3+3 Pre-Law Program)

### Global Diplomacy CRITICAL REQUIREMENTS

SEMESTER 1: ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057

SEMESTER 2: ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057

SEMESTER 3: ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057; First Course in Foreign Language Sequence; Admission to the College. SEMESTER 4: ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057; Second Course in Foreign Language Sequence.

SEMESTER 5: ENGL 2000;INTL 3001; Third Course in Foreign Language Sequence.

### Semester 1

**CRITICAL:** ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057

• ENGL 1001 English Composition (3)

#### INTL Core Course (3)

- Select **one** course from the following:
- ANTH 1003 Introduction to Cultural and Social Anthropology (3)

- ANTH 2051 Introduction to World Ethnography (3)
- ECON 2030 Economic Principles (3)
- ECON 2031 HONORS: Economic Principles (3)
- GEOG 1001 Human Geography: Americas and Europe (3)
- GEOG 1003 Human Geography: Africa and Asia (3)
- HIST 1007 World History Since 1500 (3)
- POLI 2053 Introduction to Comparative Politics (3)
- POLI 2057 Introduction to International Politics (3)
- First Course in Foreign Language Sequence (4)<sup>1</sup>
- General Education Course Analytical Reasoning (from Mathematics) (3)
- General Education Course Natural Sciences (3)<sup>2</sup>

### **Total Semester Hours: 16**

#### Semester 2

**CRITICAL:** ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057

#### INTL Core Courses (6)

- Select **two** courses from the following:
- ANTH 1003 Introduction to Cultural and Social Anthropology (3)
- ANTH 2051 Introduction to World Ethnography (3)
- ECON 2030 Economic Principles (3)
- ECON 2031 HONORS: Economic Principles (3)
- GEOG 1001 Human Geography: Americas and Europe (3)
- GEOG 1003 Human Geography: Africa and Asia (3)
- HIST 1007 World History Since 1500 (3)
- POLI 2053 Introduction to Comparative Politics (3)
- POLI 2057 Introduction to International Politics (3)
- Second Course in Foreign Language Sequence (4)<sup>1</sup>
- General Education Course Natural Sciences (3)<sup>2</sup>
- General Education Course Arts (3)

### Total Semester Hours: 16

### Semester 3

**CRITICAL:** ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057; First Course in Foreign Language Sequence; Admission to the College.

INTL Core Courses (3)

 $\circ \quad \ \ \, Select \ one \ course \ from \ the \ following:$ 

- ANTH 1003 Introduction to Cultural and Social Anthropology (3)
- ANTH 2051 Introduction to World Ethnography (3)
- ECON 2030 Economic Principles (3)
- ECON 2031 HONORS: Economic Principles (3)
- GEOG 1001 Human Geography: Americas and Europe (3)
- GEOG 1003 Human Geography: Africa and Asia (3)
- HIST 1007 World History Since 1500 (3)
- POLI 2053 Introduction to Comparative Politics (3)
- POLI 2057 Introduction to International Politics (3)
- Third Course in Foreign Language Sequence (4-3)<sup>1</sup>
- General Education Course Humanities (3)
- General Education Course Natural Sciences (3)<sup>2</sup>
- General Education Course Analytical Reasoning (3)

#### • Approved Elective (0-2) Total Semester Hours: 16-17 Semester 4

**CRITICAL:** ANTH 1003/ANTH 2051 or ECON 2030/ECON 2031 or GEOG 1001/GEOG 1003 or HIST 1007 or POLI 2053/POLI 2057; Second Course in Foreign Language Sequence.

#### INTL Core Course (3)

- Select **one** course from the following:
- ANTH 1003 Introduction to Cultural and Social Anthropology (3)
- ANTH 2051 Introduction to World Ethnography (3)
- ECON 2030 Economic Principles (3)
- ECON 2031 HONORS: Economic Principles (3)
- GEOG 1001 Human Geography: Americas and Europe (3)
- GEOG 1003 Human Geography: Africa and Asia (3)
- HIST 1007 World History Since 1500 (3)
- POLI 2053 Introduction to Comparative Politics (3)
- POLI 2057 Introduction to International Politics (3)
- ENGL 2000 English Composition (3)
- INTL 3001 Gateway to International Studies (3)
- Fourth Course in Foreign Language Sequence (4-3)<sup>1</sup>
- General Education Course Humanities (3)

Total Semester Hours: 16-15 Semester 5

## **CRITICAL:** ENGL 2000;INTL 3001; Third Course in Foreign Language Sequence.

- Fifth Course in Foreign Language Sequence (3)<sup>1</sup>
- International Studies Primary Area of Concentration Course (3)<sup>3</sup>
- International Studies Secondary Area of Concentration Courses (6)<sup>4</sup>

### Total Semester Hours: 12 Semester 6

- INTL 4003 International Studies Senior Seminar
   (3)
- International Studies Primary Area of Concentration Courses (6)<sup>3</sup>
- Sixth Course in Foreign Language Sequence (3)<sup>1</sup>

### Total Semester Hours: 12 Semester 7

- International Studies Primary Area of Concentration Courses (6)<sup>3, 5</sup>
- Approved Electives (10)

### Total Semester Hours: 16 Semester 8

• Approved Electives (16)

# Total Semester Hours: 16 120 Total Sem. Hrs.

<sup>1</sup> - Note: Students must demonstrate competency in a language relevant to their regional area of concentration.(Competency means: equivalent of six courses for Arabic, Spanish, French, Italian, Chinese and German.) Native speakers of a language relevant to their regional concentration can petition the program director for an exemption from this language requirement. The student's proficiency in reading, writing, and speaking the language must be verified by someone knowledgeable in that language. The Associate Director will select an appropriate individual to conduct an assessment of the student's language proficiency. These students are still required to meet the four semester college level foreign language requirement as described in the General Catalog. Complete one of the following sequences: SPAN 1101, SPAN 1102 or SPAN 1152, SPAN 2101, SPAN 2102, SPAN 2155, and one from SPAN 2156, SPAN 3010, SPAN 3043, SPAN 3044, SPAN 3070, SPAN 3072, SPAN 3073, SPAN 3074, SPAN 3980, SPAN 4063, SPAN 4064, SPAN 4100, SPAN 4145, SPAN 4146, SPAN 4147, SPAN 4201, SPAN 4400.

FREN 1001, FREN 1002, FREN 2101, FREN 2102, FREN 2155, and FREN 3060.

GERM 1101, GERM 1102, GERM 2101, GERM 2102, GERM 2155, and GERM 3060 or GERM 3061 or GERM 3082 or GERM 3083 or GERM 3084 or GERM 4031 or GERM 4043 or GERM 4044 or GERM 4045.

ITAL 1001, ITAL 1002, ITAL 2101, ITAL 2102, ITAL

2155, and ITAL 3058 or ITAL 3071 or ITAL 3072 or ITAL 4051 or ITAL 4100.

CHIN 1101, CHIN 1102, CHIN 2001, CHIN 2002, CHIN 3101, CHIN 3102.

## ARAB 1101, ARAB 1102, ARAB 2101, ARAB 2102, ARAB 3101, ARAB 3102.

<sup>2</sup> - If two course sequence is taken in the physical sciences, the additional three hour course must be taken from the life sciences, and vice versa.

<sup>3</sup> - Select fifteen hours from the following (must be taken in at least two different departments; at least nine hours must be at or above the 3000-level) for the appropriate area of concentration:

#### **Global Diplomacy**

ECON 4520, ECON 4550, ECON 4560; HIST 2023, HIST 4028, HIST 4049, HIST 4064, HIST 4066, HIST 4130, HIST 4140; POLI 4041, POLI 4042, POLI 4043, POLI 4044, POLI 4046, POLI 4047, POLI 4048, POLI 4062, POLI 4063, POLI 4064, POLI 4074.

<sup>4</sup> - Select six hours from one of the following secondary areas of concentration (at least 3 hours must be at or above the 3000-level):

Africa- AAAS 2050, AAAS 3120, AAAS 3122; ANTH 4051, ANTH 4470; FREN 4070; ENGL 4322; HIST 4084, HIST 4085, INTL 3991, POLI 4064, POLI 4078; SOCL 4551; THTR 4220/ENGL 4220; language component Arabic or French.

Asia - ARTH 2411, ARTH 4441, ARTH 4442, ARTH 4443; CHIN 2070, CHIN 3101, CHIN 3102, CHIN 3801, GEOG 4037,HIST 2096, HIST 4078, HIST 4091, HIST 4092, HIST 4093, HIST 4094, HIST 4097; HIST 4191/REL 4191; INTL 3993; INTL 4002/ANTH 4002/GEOG 4002 or REL 4001, INTL 4033/GEOG 4033; POLI 4067, POLI 4079; REL 2027, REL 4600, REL 4800; language component Chinese.

Europe - ARCH 2008; ARTH 4422, ARTH 4450, ARTH 4451; ENGL 3022, ENGL 4062; FREN 3071, FREN 3072, FREN 3080, FREN 4031, FREN 4040, FREN 4050, FREN 4051; GERM 2075, GERM 3082, GERM 3083, GERM 3084, GERM 3091, GERM 4044, GERM 4046; HIST 2022, HIST 4016, HIST 4017, HIST 4022, HIST 4023, HIST 4026, HIST 4028, HIST 4030, HIST 4032, HIST 4046, HIST 4047, HIST 4048, HIST 4049, HIST 4112, HIST 4113, HIST 4130; INTL 3994; ITAL 3001, ITAL 3072; PHIL 3001, PHIL 3003, PHIL 3090, PHIL 4003, PHIL 4939; POLI 4070, POLI 4072, POLI 4074, POLI 4075, POLI 4076; REL 2120; SPAN 3073, SPAN 4063, SPAN 4064, SPAN 4201; language component French, German, Italian, or Spanish.

Latin America - AAAS 4323/ENGL 4323, ARTH 4467, ANTH 4023; GEOG 4031; HIST 2085, HIST 4081, HIST 4083; INTL 3995; POLI 4065; SPAN 3043, SPAN 3044, SPAN 3074, SPAN 4144, SPAN 4145, SPAN 4146, SPAN 4147, SPAN 4201; language component Spanish. Middle East - ARAB 2001, ARAB 4915; ARTH 2401, ARTH 4449; HIST 4096/REL 4096; INTL 3992, INTL 4033, INTL 4051/GEOG 4051; POLI 4059, POLI 4061; REL 2029, REL 3100, REL 3786/INTL 3786; REL 3092/INTL 3092; SOCL 4551; language component Arabic. <sup>5</sup> – Six hours of first year law coursework will substitute for six hours of INTL major coursework.

### Liberal Arts, B.A. (3+3 Pre-Law Program)

- African & African American Studies
  - Women's &

**Religious Studies** 

Gender Studies

- Art History
- Classical Civilization

### Areas of Concentration African & African American Studies CRITICAL REQUIREMENTS SEMESTER 1: "C" or better in ENGL 1001.

SEMESTER 1: C of better in Erole 1001. SEMESTER 2: First Course in Foreign Language Sequence.

SEMESTER 3: AAAS 2000; Admission to the College. SEMESTER 4: Area of Concentration Course; Second Course in Foreign Language Sequence. SEMESTER 5: Area of Concentration Course.

#### Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- General Education Course Analytical Reasoning (from Mathematics) (3)
- First Course in Foreign Language Sequence (4)
- General Education Course Natural Sciences (3)<sup>1</sup>

#### **Total Semester Hours: 13**

#### Semester 2

**CRITICAL:** First Course in Foreign Language Sequence.

- AAAS 2000 Introduction to African & African American Studies (3)
- Second Course in Foreign Language Sequence (4)
- General Education Course Natural Sciences (3)<sup>1</sup>
- General Education Course Arts (3)
- Approved Elective (0-2)

#### Total Semester Hours: 13-15

#### Semester 3

CRITICAL: AAAS 2000; Admission to the College.

- Third Course in Foreign Language Sequence (4-3)
- General Education Course Analytical Reasoning (3)
- General Education Course Humanities (3)
- General Education Course Natural Sciences (3)<sup>1</sup>
- Area of Concentration Course (3)<sup>2</sup>

### Total Semester Hours: 16-15 Semester 4

**CRITICAL:** Area of Concentration Course; Second Course in Foreign Language Sequence.

- ENGL 2000 English Composition (3)
- AAAS 3024 African Diaspora Intellectual Thought (3) or
- AAAS 3044 Black Rhetorical Traditions (3)
- Fourth Course in Foreign Language Sequence (4-3)
- Area of Concentration Course (3)<sup>2</sup>
- Approved Elective (3)

Total Semester Hours: 16-15

#### Semester 5

**CRITICAL:** Area of Concentration Course.

- General Education Course Humanities (3)
- General Education Course Social Sciences (3)
- Area of Concentration Courses (9)<sup>2</sup>

#### Total Semester Hours: 15 Semester 6

- AAAS 4020 Senior Seminar (3)
- General Education Course Humanities (3)
- Area of Concentration Courses (9)<sup>2</sup>

**Total Semester Hours: 15** 

#### Semester 7

• Approved Electives (16)

#### Total Semester Hours: 16 Semester 8

• Approved Electives (16)

### Total Semester Hours: 16

#### 120 Total Sem. Hrs.

<sup>1</sup> - If two course sequence is taken in the physical sciences, the additional three hour course must be taken from the life sciences, and vice versa.

 $^2$  - In addition to the nine hours of core required courses (AAAS 2000, AAAS 3024/AAAS 3044 (CxC), AAAS 4020), students must complete 24 hours from at least two divisions and three different departments. A minimum of six hours must focus on a geographical region outside the U.S. (non-US), Three hours must be either Service-Learning (S-L) or Communication Across the Curriculum (CxC). Only 12 hours from courses numbered below the 3000 level may count toward the degree.

Note: This course listing is not exhaustive. Courses from participating departments that are special topics and/or courses with service-learning or CxC sections relevant to AAAS may be counted toward the concentration requirements with prior approval from the program advisor. For additional information, contact Professor Joyce M. Jackson, 135 Howe-Russell Complex, 225-578-5246, email aaas@lsu.edu, or visit the AAAS website at www.lsu.edu/aaas.

### Divisions (24 hrs.)

Division I - History and Culture:

- AAAS 2410 Black Popular Culture (3)
- AAAS 3024 African Diaspora Intellectual Thought (3)
- AAAS 3120 Topics in History of Africa and the African Diaspora (3) (non-US)
- AAAS 3122 Topics in Pre-Colonial Africa (3) (non-US)
- AAAS 3901 Directed Readings and Research in African and African-American Studies (1-3)
- AAAS 3902 Special Topics in African & African American Studies (1-3)
- ANTH 4050 Black Music in America (3)
- ANTH 4051 Africa (3) (non-US)
- ANTH 4053 African-American Cultures (3)
- ANTH 4470 Folklore of the African Diaspora (3)
- HIST 2061 African American History (3)
- HIST 4055 Civil War (3)
- HIST 4072 The New South (3)
- HIST 4081 The Caribbean: 1492-1830 (3) (non-US)
- Division II Politics and Society:
  - AAAS 2050 Contemporary Africa (3) (non-US)
  - AAAS 2511 Race Relations (3)
  - AAAS 3024 African Diaspora Intellectual Thought (3)
  - AAAS 3425 Black Women in America (3)
  - AAAS 3901 Directed Readings and Research in African and African-American Studies (1-3)
  - AAAS 3902 Special Topics in African & African American Studies (1-3)
  - POLI 4039 Southern Politics (3)
  - POLI 4078 African Government and Politics (3) (non-US)
  - WGS 2900 Gender, Race and Nation (3)
  - Division III Literature, Language, and the Arts:
    - AAAS 2410 Black Popular Culture (3)
    - AAAS 3044 Black Rhetorical Traditions (3) (CxC)
    - AAAS 3341 African American English (3)
    - AAAS 3901 Directed Readings and Research in African and African-American Studies (1-3)
    - AAAS 3902 Special Topics in African & African American Studies (1-3)
    - AAAS 4322 Studies in African Literature (3) (non-US)
    - AAAS 4323 Studies in Caribbean Literature (3) (non-US)
    - ENGL 2674 Introduction to African-American Literature (3)
    - ENGL 3674 Survey of African-American Literature (3)

- ENGL 4173 Studies in Southern Literature (3)
- ENGL 4220 Drama of Africa and African Diaspora (3)
- ENGL 4674 Studies in African-American Literature (3)
- FREN 4070 Literature of Africa and the Caribbean (3) (non-US)
- MUS 2000 History of Jazz (3)

### Art History CRITICAL REQUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: First Course in Foreign Language Sequence. SEMESTER 3: ARTH 1440/ARTH 1441; Admission to the College.

SEMESTER 4: ARTH 1440/ARTH 1441; Second Course in Foreign Language Sequence.

SEMESTER 5: Two Area of Concentration Courses.

### Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- General Education Course Analytical Reasoning (from Mathematics Department) (3)
- First Course in Foreign Language Sequence (4)
- General Education Course Natural Sciences (3)<sup>1</sup> Total Semester Hours: 13

### Semester 2

**CRITICAL:** First Course in Foreign Language Sequence.

- ARTH 1440 Historical Survey of the Arts (3) or
- ARTH 1441 Historical Survey of the Arts (3)
- Second Course in Foreign Language Sequence (4)
- General Education Course Natural Sciences (3)<sup>1</sup>

### • Approved Electives (3-5)

Total Semester Hours: 13-15

### Semester 3

**CRITICAL:** ARTH 1440/ARTH 1441; Admission to the College.

- ARTH 1440 Historical Survey of the Arts (3) or
- ARTH 1441 Historical Survey of the Arts (3)
- Third Course in Foreign Language Sequence (4-3)
- General Education Course Analytical Reasoning (3)
- General Education Course Humanities (3)
- General Education Course Natural Sciences (3)<sup>1</sup>

Total Semester Hours: 16-15

Semester 4

## **CRITICAL:** ARTH 1440/ARTH 1441; Second Course in Foreign Language Sequence.

- ENGL 2000 English Composition (3)
- Fourth Course in Foreign Language Sequence (4-3)
- Area of Concentration Courses (6)<sup>2</sup>
- General Education Course Humanities (3)

Total Semester Hours: 16-15

#### Semester 5

**CRITICAL:** Two Area of Concentration Courses.

- ARTH 2411 Survey of Asian Art (3)
- General Education Course Humanities (3)
- General Education Course Social Sciences (3)
- Area of Concentration Courses (6)<sup>2</sup>

#### **Total Semester Hours: 15**

### Semester 6

- ARTH 4499 Undergraduate Seminar (3)
- General Education Course Social Sciences (2000-level) (3)
- Area of Concentration Courses  $(9)^2$

### Total Semester Hours: 15

#### Semester 7

• Approved Electives (16)

### Total Semester Hours: 16 Semester 8

• Approved Electives (16)

### Total Semester Hours: 16

### 120 Total Sem. Hrs.

<sup>1</sup> - If a two-course sequence is taken in the physical sciences, then the three-hour course must be from the life sciences and vice versa.

<sup>2</sup> - Students must complete 21 hours of art history electives from the following courses; at least one course required in three of the four subject areas and no more than two courses are allowable at the 2000 level. ARCH 2007 or ARCH 2008 may be substituted for one 2000 level course: Art History courses that do not fall into any of the categories below may still be counted toward the 21 hour elective requirement; ARTH 4420 and ARTH 4490 may be used to fulfill appropriate subject area requirements. ARTH 4449 may be used to fulfill either the *Ancient Art and Medieval Art* or *Non-Western Art* requirement, but not both.

### Ancient Art and Medieval Art:

- ARTH 2401 Art of the Ancient Near East and Egypt (3)
- ARTH 2402 Classical Art and Archaeology (3)
- ARTH 4404 The Art of Rome (3)
- ARTH 4405 Early Christian and Byzantine Art (3)

- ARTH 4406 Romanesque Art (3)
- ARTH 4409 Early Greek Art (3)
- ARTH 4410 Later Greek Art (3)
- ARTH 4412 Gothic Art (3)
- ARTH 4449 Islamic Art and Architecture (3)

### Renaissance through 18th Century Art:

- ARTH 2469 Italian Renaissance Art (3)
- ARTH 4413 Early Netherlandish and German Painting (3)
- ARTH 4423 Early Renaissance Painting in Italy (3)
- ARTH 4424 High Renaissance and Mannerist Painting in Italy (3)
- ARTH 4427 Northern Baroque Painting (3)
- ARTH 4429 Southern Baroque Art (3)
- ARTH 4433 18th Century European Art (3)

### 19th through 21st Century Art

- ARTH 2470 Survey of Modern to Contemporary Art (3)
- ARTH 4422 History of Modern Design (3)
- ARTH 4450 19th Century European Painting (3)
- ARTH 4451 Early 20th Century European Art (3)
- ARTH 4464 American Art to 1900 (3)
- ARTH 4466 Contemporary Art (3)
- ARTH 4468 Issues in Contemporary Art (3)
- ARTH 4469 Art of the American South: 1560-1861 (3)
- ARTH 4470 History of Photography (3)
- ARTH 4480 Video Art and Theory (3)
- ARTH 4482 History of Electronic and Digital Art (3)
- ARTH 4484 New Media Art Theory (3)

### Non-Western Art:

- ARTH 4440 African Art (3)
- ARTH 4441 Chinese Painting (3)
- ARTH 4442 Japanese Art (3)
- ARTH 4443 Indian Art (3)
- ARTH 4449 Islamic Art and Architecture (3)
- ARTH 4467 Latin American Art (3)

### **Classical Civilization**

### **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001; LATN 1001 or GREK 1001.

SEMESTER 2: LATN 2051 or GREK 2051; Gen. Ed.

Course - Analytical Reasoning.

SEMESTER 3: LATN 2053 or GREK 2103; Admission to the College.

SEMESTER 4: LATN (One additional course above LATN 2053) or GREK (one additional course above GREK 2103). SEMESTER 5: Area of Concentration Course.

### Semester 1

**CRITICAL:** "C" or better in ENGL 1001; LATN 1001 or GREK 1001.

- ENGL 1001 English Composition (3)
- LATN 1001 Elementary Latin (4) or
- GREK 1001 Elementary Greek (4)
- General Education Course Analytical Reasoning (3)
- General Education Course Natural Sciences (3)<sup>1</sup>
- Approved Elective (2)

#### **Total Semester Hours: 15**

#### Semester 2

**CRITICAL:** LATN 2051 or GREK 2051; Gen. Ed. Course - Analytical Reasoning.

- LATN 2051 Intermediate Latin (4) or
- GREK 2051 Intermediate Greek (4)
- General Education Course Natural Sciences (3)<sup>1</sup>
- Approved Electives (6)
- **Total Semester Hours: 13**

#### Semester 3

**CRITICAL:** LATN 2053 or GREK 2103; Admission to the College.

- LATN 2053 Intermediate Latin (3) or
- GREK 2103 Intermediate Greek Prose (3)
- General Education Course Analytical Reasoning (from Mathematics) (3)
- General Education Course Natural Sciences (3)<sup>1</sup>
- Approved Electives (6)

#### **Total Semester Hours: 15**

#### Semester 4

**CRITICAL:** LATN (One additional course above LATN 2053) or GREK (one additional course above GREK 2103).

- ENGL 2000 English Composition (3)
- LATN (one additional course above LATN 2053) or GREK (one additional course above GREK 2103) (3)
- General Education Course Humanities (3)
- General Education Course Arts (3)
- General Education Course Social Sciences (3)

### **Total Semester Hours: 15**

#### Semester 5

#### **CRITICAL:** Area of Concentration Course.

- General Education Course Social Sciences (2000-level) (3)
- Area of Concentration Courses (12)<sup>2</sup>

### Total Semester Hours: 15 Semester 6

- CLST 4999 Senior Seminar (3)
- Area of Concentration Course (3)<sup>2</sup>

- General Education Course Humanities (6)
- Approved Elective (3)

Total Semester Hours: 15 Semester 7

Approved Electives (16)

### Total Semester Hours: 16 Semester 8

• Approved Electives (16)

### Total Semester Hours: 16 120 Total Sem. Hrs.

<sup>1</sup> - If a two-course sequence is taken in the physical sciences, then the three-hour course must be from the life sciences and vice versa.

<sup>2</sup> - Students must complete 15 hours of concentration electives from departmental electives in Greek, Latin, Classical Studies (except CLST 2092), or ARTH 1440, ARTH 2402, ARTH 4404, ARTH 4405, ARTH 4409, ARTH 4410; ENGL 4712/LING 4712; HNRS 2041; HIST 4001, HIST 4003, HIST 4004; PHIL 2033/PHIL 2053, PHIL 2034, PHIL 4922, PHIL 4924; POLI 4081; PHIL 4928/REL 4928. At least six of the concentration electives must be at or above the 3000 level.

### Religious Studies CRITICAL REQUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: Gen. Ed. Analytical Reasoning (from mathematics). SEMESTER 3: First Course in Foreign Language Sequence; Admission to the College. SEMESTER 4: REL Course. SEMESTER 5: ENGL 2000.

### Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- REL 2027 Asian Religions (3) or
- REL 2031 HONORS: Asian Religions (3) or
- REL 2029 Judaism, Christianity and Islam (3) or
- REL 2030 HONORS: Judaism, Christianity and Islam (3)
- First Course in Foreign Language Sequence (4)
- General Education Course Analytical Reasoning (from Mathematics) (3)
  - General Education Course Natural Sciences (3)<sup>1</sup>

### Total Semester Hours: 16

### Semester 2

**CRITICAL:** Gen. Ed. Analytical Reasoning (from mathematics).

• Religious Studies Elective (3)<sup>2</sup>

- Second Course in Foreign Language Sequence (4)
- General Education Course Natural Sciences (3)<sup>1</sup>
- Approved Electives (3-5)

### Total Semester Hours: 13-15 Semester 3

**CRITICAL:** First Course in Foreign Language Sequence; Admission to the College.

- Third Course in Foreign Language Sequence (4-3)
- General Education Course Humanities (3)
- General Education Course Natural Sciences (3)<sup>1</sup>
- Religious Studies Elective (3)<sup>2</sup>
- Approved Elective (3)

#### Total Semester Hours: 16-15

#### Semester 4

CRITICAL: REL Course.

- ENGL 2000 English Composition (3)
- REL 2027 Asian Religions (3) or
- REL 2031 HONORS: Asian Religions (3) or
- REL 2029 Judaism, Christianity and Islam (3) or
- REL 2030 HONORS: Judaism, Christianity and Islam (3)
- Fourth Course in Foreign Language Sequence (4-3)
- General Education Course Analytical Reasoning (3)
- Religious Studies Elective (3)<sup>2</sup>

#### Total Semester Hours: 16-15

### Semester 5

CRITICAL: ENGL 2000.

- Approved Elective (3)
- Religious Studies Electives (9)<sup>2</sup>
- General Education Course Social Sciences (3)

#### Total Semester Hours: 15 Semester 6

- REL 4301 Theories of Religion (3)
- General Education Course Arts (3)
- General Education Course Social Sciences (2000-level) (3)

### • Approved Elective (3)

#### Total Semester Hours: 12 Semester 7

Approved Electives (16)

### Total Semester Hours: 16 Semester 8

• Approved Electives (16)

### Total Semester Hours: 16 120 Total Sem. Hrs.

<sup>1</sup> - If two course sequence is taken in the physical sciences, the additional three hour course must be from the life sciences, and vice versa.

 $^2$  - At least 15 of the 27 hours of REL electives/major coursework must be at the 3000-level or above and at least six of the 15 hours must be at the 4000-level (including REL 4301).

### Women's & Gender Studies CRITICAL REQUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: Gen. Ed. Course - Analytical Reasoning. SEMESTER 3: Gen. Ed. Course - Natural Sciences; Admission to the College. SEMESTER 4: Gen. Ed. Course - Humanities SEMESTER 5: ENGL 2000.

### Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- General Education Course Analytical Reasoning (3)
- First Course in Foreign Language Sequence (4)
- General Education Course Natural Sciences (3)<sup>1</sup>
- Approved Elective (3-4)

### Total Semester Hours: 16-17

Semester 2

**CRITICAL:** Gen. Ed. Course - Analytical Reasoning.

- WGS 2500 Introduction to Women's & Gender Studies (3)
- Second Course in Foreign Language Sequence (4)
- General Education Course Natural Sciences (3)<sup>1</sup>
- General Education Course Social Sciences (3)
- Approved Elective (0-1)

### Total Semester Hours: 13-14 Semester 3

**CRITICAL:** Gen. Ed. Course - Natural Sciences; Admission to the College.

- Third Course in Foreign Language Sequence (4-3)
- General Education Course Natural Sciences (3)<sup>1</sup>
- General Education Course Arts (3)
- WGS Approved Social Sciences and Humanities Elective (3)

### Total Semester Hours: 13-12 Semester 4

• ENGL 2000 English Composition (3)

- WGS 2900 Gender, Race and Nation (3)
- Fourth Course in Foreign Language Sequence (4-3)
- General Education Course Analytical Reasoning (from mathematics) (3)
- General Education Course Humanities (3)

#### Total Semester Hours: 16-15

#### Semester 5

#### CRITICAL: ENGL 2000.

- WGS 3150 Survey of Feminist Theory (3)
- WGS 4500 Special Topics in Women's & Gender Studies (3)
- WGS Approved Social Sciences and Humanities Electives (6)
- Approved Cross Cultural Course (3)<sup>2</sup>

#### Total Semester Hours: 15

#### Semester 6

- WGS 4500 Special Topics in Women's & Gender Studies (3)
- WGS Approved Social Sciences and Humanities Electives (9)
- General Education Course Humanities (Literature Course) (3)

### Total Semester Hours: 15

#### Semester 7

• Approved Electives (16)

### Total Semester Hours: 16 Semester 8

• Approved Electives (16)

#### Total Semester Hours: 16 120 Total Sem. Hrs.

<sup>1</sup> - If two course sequence is taken in the physical sciences, the additional three hour course must be taken from the life sciences, and vice versa.

<sup>2</sup> - Courses that meet the cross-cultural course requirement must be on the approved list that can be found on the WGS website or be approved by an undergraduate advisor. Students must complete 36 semester hours of course work including three required courses (WGS 2500, WGS 2900, WGS 3150), two Women's & Gender Studies special topics courses (WGS 4500), an approved cross-cultural elective, and 18 additional hours of WGS-approved humanities and social sciences electives, of which nine hours must be at the 3000 level or above. Three of the required General Education Humanities hours must be completed with a WGS-approved literature course from the General Education Humanities list.

### Philosophy, B.A. (3+3 Pre-Law Program) Philosophy CRITICAL REOUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: Gen. Ed. Analytical Reasoning (from Math

#### Department).

SEMESTER 3: First Course in Foreign Language Sequence; Admission to the College. SEMESTER 4: One PHIL course. SEMESTER 5: One PHIL course; ENGL 2000. *Consult "General Education" section of the catalog for the general education requirements.* \*Distribution requirements for foreign languages will

\*Distribution requirements for foreign languages will depend upon student placement scores and the specific language chosen. Consult the Degree Requirements of the College for more information. Some adjustment in elective hours may be necessary.

### Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- General Education Course Analytical Reasoning (from Mathematics) (3)
- First Course in Foreign Language Sequence (4)
- General Education Course Natural Sciences (3)<sup>1</sup>
- Approved Electives (3-5)

### Total Semester Hours: 16-18 Semester 2

**CRITICAL:** Gen. Ed. Analytical Reasoning (from Math Department).

- PHIL 2010 Symbolic Logic I (3)
- Second Course in Foreign Language Sequence (4)
- General Education Courses Natural Sciences (6)<sup>1</sup>

## Total Semester Hours: 13

### Semester 3

**CRITICAL:** First Course in Foreign Language Sequence; Admission to the College.

- PHIL 2033 History of Ancient and Medieval Philosophy (3) or
- PHIL 2053 HONORS: History of Ancient and Medieval Philosophy (3)
- Third Course in Foreign Language Sequence (4-3)
- General Education Course Humanities (3)
- Philosophy Elective (3)<sup>2</sup>
- Approved Elective (3)

### Total Semester Hours: 16-15 Semester 4

**CRITICAL:** One PHIL course.

- ENGL 2000 English Composition (3)
- PHIL 2035 History of Modern Philosophy (3)
- PHIL 2050 HONORS: Ethics (3) or
- PHIL 2020 Ethics (3) or

- PHIL 3052 Moral Philosophy (3)
- Fourth Course in Foreign Language Sequence (4-3)
- Approved Elective (3)

Total Semester Hours: 16-15

### Semester 5

CRITICAL: One PHIL course; ENGL 2000.

- Approved Elective (3)
- Philosophy Electives (6)<sup>2</sup>
- General Education Course Social Sciences (3)

### Total Semester Hours: 12 Semester 6

- Philosophy Electives (6)<sup>2</sup>
- General Education Course Arts (3)
- General Education Course -Social Sciences (2000-level) (3)
- Approved Elective (3)

### Total Semester Hours: 15 Semester 7

• Approved Electives (16)

### Total Semester Hours: 16 Semester 8

• Approved Electives (16)

### Total Semester Hours: 16 120 Total Sem. Hrs.

<sup>1</sup> - If two course sequence is taken in the physical sciences, the additional three hour course must be from the life sciences, and vice versa.

<sup>2</sup> - PHILOSOPHY ELECTIVES: A minimum of 15 semester hours must be in courses numbered 3000-level and above, with at least six of the 15 at the 4000-level. Degree credit will not be allowed for more than six hours of courses numbered below 2000.

### Area of Concentration

### Law, Ethics, & Social Justice

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: Gen. Ed. Analytical Reasoning (from Math Department). SEMESTER 3: First Course in Foreign Language Sequence; Admission to the College. SEMESTER 4: One PHIL course. SEMESTER 5: One PHIL course; ENGL 2000.

#### Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

• ENGL 1001 English Composition (3)

- General Education Course Analytical Reasoning (from Mathematics) (3)
- First Course in Foreign Language Sequence (4)
- General Education Course Natural Sciences (3)<sup>1</sup>
- Approved Electives (3-5)

Total Semester Hours: 16-18

#### Semester 2

**CRITICAL:** Gen. Ed. Analytical Reasoning (from Math Department).

- PHIL 1021 Introduction to Logic (3)
- PHIL 2033 History of Ancient and Medieval Philosophy (3) or
- PHIL 2053 HONORS: History of Ancient and Medieval Philosophy (3)

#### Total Semester Hours: 16-15 Semester 4

**CRITICAL:** One PHIL course.

- ENGL 2000 English Composition (3)
- PHIL 2010 Symbolic Logic I (3)
- PHIL 2035 History of Modern Philosophy (3)
- Fourth Course in Foreign Language Sequence (4-3)
- Approved Elective (3)

### Total Semester Hours: 16-15

#### Semester 5

CRITICAL: One PHIL course; ENGL 2000.

- Approved Elective (3)
- Philosophy Electives (6)<sup>2</sup>
- General Education Course Social Sciences (3)

#### Total Semester Hours: 12 Semester 6

- Philosophy Electives (9)<sup>2</sup>
- General Education Course Arts (3)
- General Education Course -Social Sciences (2000-level) (3)

#### Total Semester Hours: 15 Semester 7

• Approved Electives (16)

#### Total Semester Hours: 16 Semester 8

• Approved Electives (16)

### Total Semester Hours: 16

120 Total Sem. Hrs.

<sup>1</sup> - If two course sequence is taken in the physical sciences, the additional three hour course must be from the life sciences, and vice versa.

<sup>2</sup> - PHILOSOPHY ELECTIVES: A minimum of 15 semester hours must be in courses numbered 3000-level

- Second Course in Foreign Language Sequence (4)
- General Education Courses Natural Sciences
   (6)<sup>1</sup>

#### Total Semester Hours: 13 Semester 3

**CRITICAL:** First Course in Foreign Language Sequence; Admission to the College.

- PHIL 2020 Ethics (3) or
- PHIL 2050 HONORS: Ethics (3) or
- PHIL 3052 Moral Philosophy (3)
- Third Course in Foreign Language Sequence (4-3)
- General Education Course Humanities (3)
- Approved Elective (3)

and above, with at least six of the 15 at the 4000-level. Degree credit will not be allowed for more than six hours of courses numbered below 2000.

### Political Science, B.A. (3+3 Pre-Law Program)

- Without Concentration
- American Government & Politics
- Campaigns & Elections
- Comparative
   Government & Politics
- International Politics & Law
- Law & Legal Systems
- Political Analysis
- Political Theory
- Public Policy
- Race & Politics

### Political Science CRITICAL REQUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: POLI 2051.

SEMESTER 3: Approved POLI field course; First Course in Foreign Language Sequence; Admission to the College. SEMESTER 4: Approved POLI field course; Second Course in Foreign Language Sequence.

SEMESTER 5: Approved POLI field course. Consult "General Education" section of the catalog for the

general education requirements.

Consult "Degree Requirements of the College for this college for specific instructions regarding approved electives and foreign language requirements.

### Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- POLI 1001 Fundamental Issues of Politics (3)<sup>1</sup>
- General Education Course Analytical Reasoning (from Mathematics) (3)
- First Course in Foreign Language Sequence (4)

• General Education Course - Natural Sciences (3)<sup>2</sup> Total Semester Hours: 16

### Semester 2

CRITICAL: POLI 2051.

- POLI 2051 American Government (3)
- Second Course in Foreign Language Sequence (4)
- General Education Course Humanities (3)
- General Education Course Natural Sciences (3)<sup>2</sup>
- Approved Elective (0-2)

Total Semester Hours: 13-15

### Semester 3

**CRITICAL:** Approved POLI field course; First Course in Foreign Language Sequence; Admission to the College.

- Third Course in Foreign Language Sequence (4-3)
- Approved POLI field Course (3)<sup>3</sup>
- General Education Course Natural Sciences (3)<sup>2</sup>

- General Education Course -Analytical Reasoning (3)
- Approved Elective (3)

### Total Semester Hours: 16-15 Semester 4

**CRITICAL:** Approved POLI field course; Second Course in Foreign Language Sequence.

- ENGL 2000 English Composition (3)
- Fourth Course in Foreign Language Sequence (4-3)
- General Education Course Humanities (3)

### • Approved POLI Field Course (3)<sup>3</sup>

Total Semester Hours: 13-12

### Semester 5

**CRITICAL:** Approved POLI field course.

- Approved POLI field course (3)<sup>3</sup>
- Approved POLI courses (6)
- General Education Course Social Sciences (3)
- General Education Course Arts (3)

### Total Semester Hours: 15 Semester 6

- Approved POLI Courses (12)<sup>3</sup>
- General Education Course Humanities (3)

### Total Semester Hours: 15 Semester 7

• Approved Electives (16)

### Total Semester Hours: 16 Semester 8

• Approved Electives (16)

# Total Semester Hours: 16 120 Total Sem. Hrs.

<sup>1</sup> - POLI 1001 recommended, but not required. If POLI 1001 is not taken, add three hours of Approved POLI courses.

<sup>2</sup> - If two course sequence is taken in the physical sciences, the additional three hour course must be taken from the life sciences, and vice versa.

#### <sup>3</sup> - Political Science courses are divided into four fields: (1) American government and politics; (2) comparative government and politics; (3) international politics and law; and (4) political theory.

<sup>4-</sup> All students take Introduction to American Government (POLI 2051 or POLI 2052) and must take one course from each of the other three fields as follows:

#### American Government & Politics

- General: POLI 2051 POLI 2052 POLI 4000
- Political Behavior: POLI 2030 POLI 4026 POLI 4028 POLI 4030 POLI 4031 POLI 4032 POLI 4034 POLI 4035 POLI 4036

- Public Law & Jurisprudence: POLI 4020 POLI 4021 POLI 4023
- Public Administration: POLI 2070 POLI 4011 POLI 4017
- State, Urban, Local Government: POLI 2056 POLI 4015 POLI 4039

Comparative Government & Politics

- General: POLI 2053 POLI 4060 POLI 4062 POLI 4063 POLI 4064
- Western Europe: POLI 4074 POLI 4075 POLI 4076 POLI 4077
- Latin America: POLI 4065
- Russia & Eastern Europe: POLI 4070 POLI 4072
- Asia: POLI 4067 POLI 4079
- Africa: POLI 4078
- Middle East: POLI 4061

#### International Politics & Law

- International Politics: POLI 2057 POLI 4040 POLI 4044 POLI 4045 POLI 4046 POLI 4047 POLI 4048 POLI 4050 POLI 4059
- International Law & Organization: POLI 4041 POLI 4042
- Foreign Policy: POLI 4043

#### Political Theory

- Political Theory, General: POLI 2060 POLI 4090
- History of Political Thought: POLI 4080 POLI 4081 POLI 4082
- Contemporary Political Thought: POLI 4096 POLI 4097 POLI 4098

Each field has a special topics course available that may be taken for up to 6 hours of credit when topics vary. These courses are: POLI 4000 (American Government and Politics); POLI 4040 (International Politics and Law); POLI 4060 (Comparative Government and Politics); and POLI 4090 (Political Theory). In addition, POLI 4996, POLI 4997, POLI 4998, POLI 4999 may count toward a Political Science field with approval of the departmental advisor.

# Area of Concentration

# American Government & Politics

SEMESTER 1: "C" or better in ENGL 1001.

SEMESTER 2: POLI 2051.

SEMESTER 3: Approved POLI course; First Course in Foreign Language Sequence; Admission to the College. SEMESTER 4: Approved POLI course; Second Course in Foreign Language Sequence.

SEMESTER 5: Approved POLI course.

#### Semester 1

Critical: "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- POLI 1001 Fundamental Issues of Politics (3) <sup>1</sup>
- First Course in Foreign Language Sequence (4)
- General Education Course Natural Sciences (3)<sup>2</sup>
- General Education Course Analytical Reasoning (from Mathematics) (3)

## Total Semester Hours: 16

#### Semester 2

Critical: POLI 2051.

- POLI 2051 American Government (3)
- Second Course in Foreign Language Sequence (4)
- General Education Course Humanities (3)
- General Education Course Natural Sciences (3)<sup>2</sup>
- Approved Elective (0-2)
- Total Semester Hours: 13-15

#### Semester 3

**Critical:** Approved POLI Field Course; First Course in Foreign Language Sequence; Admission to the College

- Third Course in Foreign Language Sequence (4-3)
- Approved POLI Course (3)<sup>3</sup>
- General Education Course Natural Sciences (3)<sup>2</sup>
- General Education Course -Analytical Reasoning (3)
- Approved Elective (3)

#### Total Semester Hours: 16-15 Semester 4

**Critical:** Approved POLI Field Course; Second Course in Foreign Language Sequence

- ENGL 2000 English Composition (3)
- Fourth Course in Foreign Language Sequence (4-3)
- General Education Course Humanities (3)
- Approved POLI field Courses (3)<sup>3</sup>

# Total Semester Hours: 13-12

# Semester 5

**CRITICAL:** Approved POLI field course.

- Second Course in American Government<sup>3</sup>
- Approved POLI field course (3)<sup>3</sup>
- Approved POLI course (3)
- General Education Course Social Sciences (3)
- General Education Course Arts (3)

# Total Semester Hours: 15

# Semester 6

- Third and Fourth Courses in American Government (6)<sup>3</sup>
- Approved POLI Courses (6)
- General Education Course Humanities (3)

#### **Total Semester Hours: 15**

#### Semester 7

• Approved Electives (16)

#### Total Semester Hours: 16 Semester 8

• Approved Electives (16)

# Total Semester Hours: 16 120 Total Sem. Hrs.

1 - POLI 1001 recommended but not required. If POLI 1001 is not taken, add three hours of approved POLI courses.

2 - If a two-course sequence is taken in the physical sciences, then the three-hour course must be from the life sciences and vice versa.

3 - Political Science courses are divided into four fields: (1) American government & politics; (2) comparative government & politics; (3) international politics & law; and (4) political theory.

All students take Introduction to American Government (POLI 2051 or POLI 2052) and must take one course from each of the other three fields as follows:

#### • American Government & Politics

General: POLI 2051, POLI 2052, POLI 4000. Political Behavior: POLI 2030, POLI 4026, POLI 4028, POLI 4030, POLI 4031, POLI 4032, POLI 4034, POLI 4035, POLI 4036

Public Law & Jurisprudence: POLI 4020, POLI 4021, POLI 4023

Public Administration: POLI 2070, POLI 4011, POLI 4017

State, Urban, Local Government: POLI 2056, POLI 4015, POLI 4039

• Comparative Government & Politics General:POLI 2053, POLI 4060, POLI 4062, POLI 4063, POLI 4064

Western Europe: POLI 4074, POLI 4075, POLI 4076, POLI 4077

Latin America: POLI 4065

Russia & Eastern Europe: POLI 4070, POLI 4072 Asia: POLI 4067 POLI 4079 Africa: POLI 4078

Middle East: POLI 4061,

• International Politics & Law International Politics: POLI 2057, POLI 4040, POLI 4044, POLI 4045, POLI 4046, POLI 4047, POLI 4048, POLI 4050, POLI 4059

International Law & Organization: POLI 4041, POLI 4042 Foreign Policy: POLI 4043

• Political Theory

Political Theory, General: POLI 2060, POLI 4090, POLI 4234

History of Political Thought: POLI 4080, POLI 4081, POLI 4082

Contemporary Political Thought: POLI 4096, POLI 4097, POLI 4098

Each field has a special topics course available that may be taken for up to six hours of credit when topics vary. These courses are: POLI 4000 (American Government &

Politics); POLI 4040 (International Politics & Law); POLI 4060 (Comparative Government & Politics); and POLI 4090 (Political Theory). In addition, POLI 4996, POLI 4997, POLI 4998, and POLI 4999 may count toward a political science field with approval of the departmental advisor.

# Campaigns & Elections

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: POLI 2051. SEMESTER 3: Approved POLI field course; First Course in Foreign Language Sequence; Admission to the College. SEMESTER 4: Approved POLI field course; Second Course in Foreign Language Sequence. SEMESTER 5: Approved POLI field course.

#### Semester 1

Critical: "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- POLI 1001 Fundamental Issues of Politics (3)<sup>1</sup>
- First Course in Foreign Language Sequence (4)
- General Education Course Natural Sciences (3)<sup>2</sup>
- General Education Course Analytical Reasoning (from Mathematics) (3)
- Total Semester Hours: 16

Semester 2

Critical: POLI 2051.

- POLI 2051 American Government (3)
- Second Course in Foreign Language Sequence (4)
- General Education Course Humanities (3)
- General Education Course Natural Sciences (3)<sup>2</sup>
- Approved Elective (0-2)
- Total Semester Hours: 13-15

#### Semester 3

**Critical:** Approved POLI Field Course; First Course in Foreign Language Sequence; Admission to the College

- Third Course in Foreign Language Sequence (4-3)
- Approved POLI Field Course (3)<sup>3</sup>
- General Education Course Natural Sciences (3)<sup>2</sup>
- General Education Course -Analytical Reasoning (3)
- Approved Elective (3)

Total Semester Hours: 16-15 Semester 4

> **Critical:** Approved POLI Field Course; Second Course in Foreign Language Sequence

- ENGL 2000 English Composition (3)
- Fourth Course in Foreign Language Sequence (4-3)
- General Education Course Humanities (3)

## • Approved POLI field Course (3)<sup>3</sup>

## Total Semester Hours: 13-12

## Semester 5

**CRITICAL:** Approved POLI field course.

- First and Second Course in Campaigns & Elections (6)<sup>4</sup>
- Approved POLI field course (3)<sup>3</sup>
- General Education Course Social Sciences (3)
- General Education Course Arts (3)

#### Total Semester Hours: 15 Semester 6

- Third and Fourth Courses in Campaigns & Elections (6)<sup>4</sup>
- Approved POLI Courses (6)
- General Education Course Humanities (3)

#### Total Semester Hours: 15 Semester 7

• Approved Electives (16)

## Total Semester Hours: 16 Semester 8

• Approved Electives (16)

#### Total Semester Hours: 16 120 Total Sem. Hrs.

1 - POLI 1001 recommended but not required. If POLI 1001 is not taken, add three hours of approved POLI courses.

2 - If a two-course sequence is taken in the physical sciences, then the three-hour course must be from the life sciences and vice versa.

3 - Political Science courses are divided into four fields: (1) American government and politics; (2) comparative government and politics; (3) international politics and law; and (4) political theory.

All students take Introduction to American Government (POLI 2051 or POLI 2052) and must take one course from each of the other three fields as follows:

#### American Government & Politics

- General: POLI 2051, POLI 2052, POLI 4000
- Political Behavior:POLI 2030, POLI 4026, POLI 4028, POLI 4030, POLI 4031, POLI 4032, POLI 4034, POLI 4035, POLI 4036
- Public Law & Jurisprudence: POLI 4020, POLI 4021, POLI 4023
- Public Administration: POLI 2070, POLI 4011, POLI 4017
- State, Urban, Local Government: POLI 2056, POLI 4015, POLI 4039

Comparative Government & Politics

- General: POLI 2053 ,POLI 4060, POLI 4062 ,POLI 4063, POLI 4064
- Western Europe: POLI 4074, POLI 4075, POLI 4076, POLI 4077
- Latin America: POLI 4065

- Russia & Eastern Europe: POLI 4070, POLI 4072
- Asia: POLI 4067, POLI 4079
- Africa: POLI 4078
- Middle East: POLI 4061

## International Politics & Law

- International Politics: POLI 2057, POLI 4040, POLI 4044, POLI 4045, POLI 4046, POLI 4047, POLI 4048, POLI 4050, POLI 4059
- International Law & Organization: POLI 4041, POLI 4042
- Foreign Policy: POLI 4043

#### Political Theory

- Political Theory, General: POLI 2060, POLI 4090
- History of Political Thought: POLI 4080, POLI 4081, POLI 4082
- Contemporary Political Thought: POLI 4096, POLI 4097, POLI 4098

Each field has a special topics course available that may be taken for up to six hours of credit when topics vary. These courses are: POLI 4000 (American Government and Politics); POLI 4040 (International Politics and Law); POLI 4060 (Comparative Government and Politics); and POLI 4090 (Political Theory). In addition, POLI 4996, POLI 4997 ,POLI 4998, and POLI 4999 may count toward a political science field with approval of the departmental advisor.

#### <sup>4</sup>- Campaigns & Elections

- Political Behavior: POLI 4026 ,POLI 4031 ,POLI 4034
- Public Opinion: POLI 4030
- Comparative Elections: POLI 4063

# **Comparative Government & Politics**

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: POLI 2051. SEMESTER 3: Approved POLI field course; First Course in Foreign Language Sequence; Admission to the College. SEMESTER 4: Approved POLI field course; Second

Course in Foreign Language Sequence.

# SEMESTER 5: Approved POLI field course.

# Semester 1

Critical: "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- POLI 1001 Fundamental Issues of Politics (3) <sup>1</sup>
- First Course in Foreign Language Sequence (4)
- General Education Course Natural Sciences (3)<sup>2</sup>
- General Education Course Analytical
- Reasoning (from Mathematics) (3)

# Total Semester Hours: 16

Semester 2

Critical: POLI 2051.

- POLI 2051 American Government (3)
- Second Course in Foreign Language Sequence (4)
- General Education Course Humanities (3)
- General Education Course Natural Sciences (3)<sup>2</sup>
- Approved Elective (0-2)

# Semester 3

**Critical:** Approved POLI Field Course; First Course in Foreign Language Sequence; Admission to the College

- Third Course in Foreign Language Sequence (4-3)
- Approved POLI Course (3)<sup>3</sup>
- General Education Course Natural Sciences (3)<sup>2</sup>
- General Education Course -Analytical Reasoning (3)
- Approved Elective (3)

#### Total Semester Hours: 16-15 Semester 4

**Critical:** Approved POLI Field Course; Second Course in Foreign Language Sequence

- ENGL 2000 English Composition (3)
- Fourth Course in Foreign Language Sequence (4-3)
- General Education Course Humanities (3)
- Approved POLI field Course (3)<sup>3</sup>

Total Semester Hours: 13-12

#### Semester 5

**CRITICAL:** Approved POLI field course.

- Second Course in Comparative Government (3)<sup>3</sup>
- Approved POLI field course (3)<sup>3</sup>
- Approved POLI course (3)
- General Education Course Social Sciences (3)
- General Education Course Arts (3)

#### Total Semester Hours: 15 Semester 6

- Third and Fourth Courses in Comparative Government (6)<sup>3</sup>
- Approved POLI Courses (6)
- General Education Course Humanities (3)

# Total Semester Hours: 15

Semester 7

• Approved Electives (16)

#### Total Semester Hours: 16 Semester 8

• Approved Electives (16)

# Total Semester Hours: 16 120 Total Sem. Hrs.

1 - POLI 1001 recommended but not required. If POLI 1001 is not taken, add three hours of approved POLI courses.

2 - If a two-course sequence is taken in the physical sciences, then the three-hour course must be from the life sciences and vice versa.

3 - Political Science courses are divided into four fields: (1) American government and politics; (2) comparative government and politics; (3) international politics and law; and (4) political theory.

All students take Introduction to American Government (POLI 2051 or POLI 2052) and must take one course from each of the other three fields as follows:

# American Government & Politics

- General: POLI 2051, POLI 2052, POLI 4000
- Political Behavior: POLI 2030, POLI 4026, POLI 4028, POLI 4030, POLI 4031, POLI 4032, POLI 4034, POLI 4035, POLI 4036
- Public Law & Jurisprudence: POLI 4020, POLI 4021, POLI 4023
- Public Administration: POLI 2070, POLI 4011, POLI 4017
- State, Urban, Local Government: POLI 2056, POLI 4015, POLI 4039

## Comparative Government & Politics

- General: POLI 2053 , POLI 4060 , POLI 4062 , POLI 4063 , POLI 4064
- Western Europe: POLI 4074 , POLI 4075 , POLI 4076 , POLI 4077
- Latin America: POLI 4065
- Russia & Eastern Europe: POLI 4070, POLI 4072
- Asia: POLI 4067, POLI 4079
- Africa: POLI 4078
- Middle East: POLI 4061

#### **International Politics & Law**

- International Politics: POLI 2057, POLI 4040, POLI 4044, POLI 4045, POLI 4046, POLI 4047, POLI 4048, POLI 4050, POLI 4059
- International Law & Organization: POLI 4041 ,POLI 4042
- Foreign Policy: POLI 4043

#### Political Theory

- Political Theory, General: POLI 2060, POLI 4090
- History of Political Thought: POLI 4080, POLI 4081, POLI 4082
- Contemporary Political Thought: POLI 4096, POLI 4097, POLI 4098

Each field has a special topics course available that may be taken for up to six hours of credit when topics vary. These courses are: POLI 4000 (American Government and Politics); POLI 4040 (International Politics and Law); POLI 4060 (Comparative Government and Politics); and POLI 4090 (Political Theory). In addition,POLI 4996, POLI 4997, POLI 4998, and POLI 4999 may count toward a political science field with approval of the departmental advisor.

# International Politics & Law

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: POLI 2051. SEMESTER 3: Approved POLI field course; First Course in Foreign Language Sequence; Admission to the College. SEMESTER 4: Approved POLI field course; Second Course in Foreign Language Sequence. SEMESTER 5: Approved POLI field course.

## Semester 1

Critical: "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- POLI 1001 Fundamental Issues of Politics (3)<sup>1</sup>
- First Course in Foreign Language Sequence (4)
- General Education Course Natural Sciences (3)<sup>2</sup>
- General Education Course Analytical Reasoning (from Mathematics) (3)

Total Semester Hours: 16

#### Semester 2

Critical: POLI 2051.

- POLI 2051 American Government (3)
- Second Course in Foreign Language Sequence (4)
- General Education Course Humanities (3)
- General Education Course Natural Sciences (3)<sup>2</sup>
- Approved Elective (0-2)

#### Total Semester Hours: 13-15

#### Semester 3

**Critical:** Approved POLI Field Course; First Course in Foreign Language Sequence; Admission to the College

- Third Course in Foreign Language Sequence (4-3)
- Approved POLI field Course (3)<sup>3</sup>
- General Education Course Natural Sciences (3)<sup>2</sup>
- General Education Course -
- Analytical Reasoning (3)Approved Elective (3)

## Total Semester Hours: 16-15 Semester 4

**Critical:** Approved POLI Field Course; Second Course in Foreign Language Sequence

- ENGL 2000 English Composition (3)
- Fourth Course in Foreign Language Sequence (4-3)
- General Education Course Humanities (3)
- Approved POLI field Course (3)<sup>3</sup>

#### Total Semester Hours: 13-12

#### Semester 5

**CRITICAL:** Approved POLI field course.

- Second Course in International Politics (3)<sup>3</sup>
- Approved POLI field course (3)<sup>3</sup>

- Approved POLI course (3)
- General Education Course Social Sciences (3)
- General Education Course Arts (3)

#### Total Semester Hours: 15 Semester 6

- Third and Fourth Courses in International Politics (6)<sup>3</sup>
- Approved POLI Courses (6)
- General Education Course Humanities (3)

## Total Semester Hours: 15 Semester 7

• Approved Electives (16)

# Total Semester Hours: 16

- Semester 8
  - Approved Electives (16)

# Total Semester Hours: 16

120 Total Sem. Hrs.

1 - POLI 1001 recommended but not required. If POLI 1001 is not taken, add three hours of approved POLI courses.

2 - If a two-course sequence is taken in the physical sciences, then the three-hour course must be from the life sciences and vice versa.

3 - Political Science courses are divided into four fields: (1) American government and politics; (2) comparative government and politics; (3) international politics and law; and (4) political theory.

All students take Introduction to American Government (POLI 2051 or POLI 2052) and must take one course from each of the other three fields as follows:

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- Public Law & Jurisprudence: POLI 4020 POLI 4021 POLI 4023
- Public Administration: POLI 2070 POLI 4011 POLI 4017
- State, Urban, Local Government: POLI 2056 POLI 4015 POLI 4039

Comparative Government & Politics

- General:POLI 2053 POLI 4060 POLI 4062 POLI 4063 POLI 4064
- Western Europe: POLI 4074 POLI 4075 POLI 4076 POLI 4077
- Latin America: POLI 4065
- Russia & Eastern Europe: POLI 4070 POLI 4072
- Asia: POLI 4067 POLI 4079
- Africa: POLI 4078
- Middle East: POLI 4061

#### **International Politics & Law**

- International Politics:POLI 2057 POLI 4040 POLI 4045 POLI 4046 POLI 4047 POLI 4048 POLI 4050 POLI 4059
- International Law & Organization: POLI 4041 POLI 4042

• Foreign Policy: POLI 4043

Political Theory

- Political Theory, General: POLI 2060 POLI 4090
- History of Political Thought: POLI 4080 POLI 4081 POLI 4082
- Contemporary Political Thought: POLI 4096 POLI 4097 POLI 4098

Each field has a special topics course available that may be taken for up to six hours of credit when topics vary. These courses are: POLI 4000 (American Government and Politics); POLI 4040 (International Politics and Law); POLI 4060 (Comparative Government and Politics); and POLI 4090 (Political Theory). In addition, POLI 4996, POLI 4997, POLI 4998, and POLI 4999 may count toward a political science field with approval of the departmental advisor.

# Law & Legal Systems

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: POLI 2051. SEMESTER 3: Approved POLI field course; First Course in Foreign Language Sequence; Admission to the College. SEMESTER 4: Approved POLI field course; Second Course in Foreign Language Sequence. SEMESTER 5: Approved POLI field course.

#### Semester 1

Critical: "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- POLI 1001 Fundamental Issues of Politics (3) <sup>1</sup>
- First Course in Foreign Language Sequence (4)
- General Education Course Natural Sciences (3)<sup>2</sup>
- General Education Course Analytical
- Reasoning (from Mathematics) (3)

# Total Semester Hours: 16

#### Semester 2

Critical: POLI 2051.

- POLI 2051 American Government (3)
- Second Course in Foreign Language Sequence (4)
- General Education Course Humanities (3)
- General Education Course Natural Sciences (3)<sup>2</sup>
- Approved Elective (0-2)
- Total Semester Hours: 13-15

#### Semester 3

**Critical:** Approved POLI Field Course; First Course in Foreign Language Sequence; Admission to the College

• Third Course in Foreign Language Sequence (4-3)

- Approved POLI Field Course (3)<sup>3</sup>
- General Education Course Natural Sciences (3)<sup>2</sup>
- General Education Course -Analytical Reasoning (3)
- Approved Elective (3)

#### Total Semester Hours: 16-15 Semester 4

**Critical:** Approved POLI Field Course; Second Course in Foreign Language Sequence

- ENGL 2000 English Composition (3)
- Fourth Course in Foreign Language Sequence (4-3)
- General Education Course Humanities (3)
- Approved POLI field Course (3)<sup>3</sup>
- Total Semester Hours: 13-12

#### Semester 5

**CRITICAL:** Approved POLI field course.

- First and Second Course in Law & Legal Systems (6)<sup>4</sup>
- Approved POLI field course (3)<sup>3</sup>
- General Education Course Social Sciences (3)
- General Education Course Arts (3)

# Total Semester Hours: 15

# Semester 6

- Third and Fourth Courses in Law & Legal Systems (6)<sup>4</sup>
- Approved POLI Courses (6)
- General Education Course Humanities (3)

#### Total Semester Hours: 15 Semester 7

• Approved Electives (16)

#### Total Semester Hours: 16 Semester 8

• Approved Electives (16)

#### Total Semester Hours: 16 120 Total Sem. Hrs.

1 - POLI 1001 recommended but not required. If POLI 1001 is not taken, add three hours of approved POLI courses.

2 - If a two-course sequence is taken in the physical sciences, then the three-hour course must be from the life sciences and vice versa.

3 - Political Science courses are divided into four fields: (1) American government and politics; (2) comparative government and politics; (3) international politics and law; and (4) political theory.

All students take Introduction to American Government (POLI 2051 or POLI 2052) and must take one course from each of the other three fields as follows:

# American Government & Politics

General: POLI 2051, POLI 2052, POLI 4000

- Political Behavior: POLI 2030, POLI 4026 POLI 4028 POLI 4030 POLI 4031 POLI 4032 POLI 4034 POLI 4035 POLI 4036
- Public Law & Jurisprudence: POLI 4020 POLI 4021 POLI 4023
- Public Administration: POLI 2070 POLI 4011 POLI 4017
- State, Urban, Local Government:POLI 2056 POLI 4015 POLI 4039

Comparative Government & Politics

- General: POLI 2053 POLI 4060 POLI 4062 POLI 4063 POLI 4064
- Western Europe: POLI 4074 POLI 4075 POLI 4076 POLI 4077
- Latin America: POLI 4065
- Russia & Eastern Europe: POLI 4070 POLI 4072
- Asia:POLI 4067 POLI 4079
- Africa: POLI 4078
- Middle East: POLI 4061

#### International Politics & Law

- International Politics: POLI 2057 POLI 4040 POLI 4044 POLI 4045 POLI 4046 POLI 4047 POLI 4048 POLI 4050 POLI 4059
- International Law & Organization: POLI 4041 POLI 4042
- Foreign Policy: POLI 4043

#### Political Theory

- Political Theory, General: POLI 2060 POLI 4090
- History of Political Thought: POLI 4080 POLI 4081 POLI 4082
- Contemporary Political Thought: POLI 4096 POLI 4097 POLI 4098

Each field has a special topics course available that may be taken for up to six hours of credit when topics vary. These courses are: POLI 4000 (American Government and Politics); POLI 4040 (International Politics and Law); POLI 4060 (Comparative Government and Politics); and POLI 4090 (Political Theory). In addition, POLI 4996, POLI 4997, POLI 4998, and POLI 4999 may count toward a political science field with approval of the departmental advisor.

#### <sup>4</sup>- Law & Legal Systems

- American Constitutional Law: POLI 4020 POLI 4021
- Judicial Politics: POLI 4023
- International Law: POLI 4041
- Sociology of Law: SOCL 3371 SOCL 4471
- Mass Media Law: MC 3080 MC 3081
- Legal Writing: ENGL 3101

## **Political Analysis**

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: POLI 2051. SEMESTER 3: Approved POLI field course; First Course in Foreign Language Sequence; Admission to the College. SEMESTER 4: Approved POLI field course; Second Course in Foreign Language Sequence. SEMESTER 5: Approved POLI field course.

#### Semester 1

Critical: "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- POLI 1001 Fundamental Issues of Politics (3) <sup>1</sup>
- First Course in Foreign Language Sequence (4)
- General Education Course Natural Sciences (3)<sup>2</sup>
- General Education Course Analytical Reasoning (from Mathematics) (3)
- Total Semester Hours: 16

Semester 2

Critical: POLI 2051.

- POLI 2051 American Government (3)
- Second Course in Foreign Language Sequence (4)
- General Education Course Humanities (3)
- General Education Course Natural Sciences (3)<sup>2</sup>
- Approved Elective (0-2)

#### Total Semester Hours: 13-15

#### Semester 3

**Critical:** Approved POLI Field Course; First Course in Foreign Language Sequence; Admission to the College

- Third Course in Foreign Language Sequence (4-3)
- Approved POLI Field Course (3)<sup>3</sup>
- General Education Course Natural Sciences (3)<sup>2</sup>
- General Education Course -Analytical Reasoning (3)
- Approved Elective (3)

## Total Semester Hours: 16-15 Semester 4

**Critical:** Approved POLI Field Course; Second Course in Foreign Language Sequence

- ENGL 2000 English Composition (3)
- Fourth Course in Foreign Language Sequence (4-3)
- General Education Course Humanities (3)
- Approved POLI field Course (3)<sup>3</sup>

Total Semester Hours: 13-12

#### Semester 5

#### Critical: Approved POLI Field Course

- POLI 3001 Approaches to the Study of Politics (3)
- POLI 4998 HONORS: Directed Research (1-3)
- Approved POLI field course (3)<sup>3</sup>
- General Education Course Social Sciences (3)
- General Education Course Arts (3)

Total Semester Hours: 15

# Semester 6

- POLI 3003 Games and Strategy in Models of Politics (3) or
- POLI 4001 Research Methods in Political Science (3)
- Approved POLI Courses (6)
- General Education Course Humanities (3)
- POLI 4999 HONORS: Thesis (3)
- Total Semester Hours: 15

## Semester 7

• Approved Electives (16)

## Total Semester Hours: 16 Semester 8

• Approved Electives (16)

# Total Semester Hours: 16

# 120 Total Sem. Hrs.

1 - POLI 1001 recommended but not required. If POLI 1001 is not taken, add three hours of approved POLI courses.

2 - If a two-course sequence is taken in the physical sciences, then the three-hour course must be from the life sciences and vice versa.

3 - Political Science courses are divided into four fields: (1) American government and politics; (2) comparative government and politics; (3) international politics and law; and (4) political theory.

All students take Introduction to American Government (POLI 2051 or POLI 2052) and must take one course from each of the other three fields as follows:

#### American Government & Politics

- General: POLI 2051 POLI 2052 POLI 4001
- Political Behavior: POLI 2030 POLI 4026 POLI 4028 POLI 4030 POLI 4031 POLI 4032 POLI 4034 POLI 4035 POLI 4036
- Public Law & Jurisprudence: POLI 4020 POLI 4021 POLI 4023
- Public Administration: POLI 2070 POLI 4011 POLI 4017
- State, Urban, Local Government: POLI 2056 POLI 4015 POLI 4039

Comparative Government & Politics

- General: POLI 2053 POLI 4060 POLI 4062 POLI 4063 POLI 4064
- Western Europe: POLI 4074 POLI 4075 POLI 4076 POLI 4077
- Latin America: POLI 4065
- Russia & Eastern Europe: POLI 4070 POLI 4072
- Asia: POLI 4067 POLI 4079
- Africa: POLI 4078
- Middle East: POLI 4061

# International Politics & Law

 International Politics:POLI 2057 POLI 4040 POLI 4044 POLI 4045 POLI 4046 POLI 4047 POLI 4048 POLI 4050 POLI 4059

- International Law & Organization: POLI 4041 POLI 4042
- Foreign Policy: POLI 4043
- Political Theory
  - Political Theory, General: POLI 2060 POLI 4090
  - History of Political Thought: POLI 4080 POLI 4081 POLI 4082
  - Contemporary Political Thought: POLI 4096 POLI 4097 POLI 4098

Each field has a special topics course available that may be taken for up to six hours of credit when topics vary. These courses are: POLI 4000 (American Government and Politics); POLI 4040 (International Politics and Law); POLI 4060 (Comparative Government and Politics); and POLI 4090 (Political Theory). In addition, POLI 4996, POLI 4997, POLI 4998, and POLI 4999 may count toward a political science field with approval of the departmental advisor.

# **Political Theory**

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: POLI 2051.

SEMESTER 2: POLI 2051. SEMESTER 3: Approved POLI field course; First Course in Foreign Language Sequence; Admission to the College. SEMESTER 4: Approved POLI field course; Second Course in Foreign Language Sequence. SEMESTER 5: Approved POLI field course.

# Semester 1

#### **CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- POLI 1001 Fundamental Issues of Politics (3)<sup>1</sup>
- General Education Course Analytical Reasoning (from Mathematics) (3)
- First Course in Foreign Language Sequence (4)
- General Education Course Natural Sciences (3)<sup>2</sup> Total Semester Hours: 16

# Semester 2

# CRITICAL: POLI 2051.

- POLI 2051 American Government (3)
- Second Course in Foreign Language Sequence (4)
- General Education Course Humanities (3)
- General Education Course Natural Sciences (3)<sup>2</sup>
- Approved Elective (0-2)

#### Total Semester Hours: 13-15

# Semester 3

**CRITICAL:** Approved POLI course; First Course in Foreign Language Sequence; Admission to the College.

- Third Course in Foreign Language Sequence (4-3)
- Approved POLI Field Course (3)<sup>3</sup>
- General Education Course Natural Sciences (3)<sup>2</sup>

- General Education Course -Analytical Reasoning (3)
- Approved Elective (3)

#### Total Semester Hours: 16-15 Semester 4

- **CRITICAL:** Approved POLI course; Second Course in Foreign Language Sequence.
- ENGL 2000 English Composition (3)
- Fourth Course in Foreign Language Sequence (4-3)
- General Education Course Humanities (3)
- Approved POLI Field Course (3)<sup>3</sup>

Total Semester Hours: 13-12

#### Semester 5

**CRITICAL:** Approved POLI field course.

- Second Course in Political Theory (3)<sup>3</sup>
- Approved POLI field course (3)<sup>3</sup>
- Approved POLI course (3)
- General Education Course Social Sciences (3)
- General Education Course Arts (3)

#### Total Semester Hours: 15 Semester 6

- Third and Fourth Courses in Political Theory (6)<sup>3</sup>
- Approved POLI Courses (6)
- General Education Course Humanities (3)

#### Total Semester Hours: 15 Semester 7

• Approved Electives (16)

#### Total Semester Hours: 16 Semester 8

• Approved Electives (16)

# Total Semester Hours: 16

120 Total Sem. Hrs.

1 - POLI 1001 recommended but not required. If POLI 1001 is not taken, add three hours of approved POLI courses.

2 - If a two-course sequence is taken in the physical sciences, then the three-hour course must be from the life sciences and vice versa.

3 - Political Science courses are divided into four fields: (1) American government & politics; (2) comparative government & politics; (3) international politics & law; and (4) political theory.

All students take Introduction to American Government (POLI 2051 or POLI 2052) and must take one course from each of the other three fields as follows:

#### • American Government & Politics

General: POLI 2051, POLI 2052, POLI 4000 Political Behavior: POLI 2030, POLI 4026, POLI 4028, POLI 4030, POLI 4031, POLI 4032, POLI 4034, POLI 4035, POLI 4036 Public Law & Jurisprudence: POLI 4020, POLI 4021, POLI 4023
Public Administration: POLI 2070, POLI 4011, POLI 4017
State, Urban, Local Government: POLI 2056, POLI 4015, POLI 4039 *Comparative Government & Politics*General:POLI 2053, POLI 4060, POLI 4062, POLI 4063, POLI 4064
Western Europe: POLI 4074, POLI 4075, POLI 4076, POLI 4077
Latin America: POLI 4065
Russia & Eastern Europe: POLI 4070, POLI 4072
Asia: POLI 4067, POLI 4079
Africa: POLI 4078

Middle East: POLI 4061

• International Politics & Law International Politics: POLI 2057, POLI 4040, POLI 4044, POLI 4045, POLI 4046, POLI 4047, POLI 4048, POLI 4050, POLI 4059 International Law & Organization: POLI 4041, POLI 4042 Foreign Policy: POLI 4043

• Political Theory

Political Theory, General: POLI 2060, POLI 4090, POLI 4234.

History of Political Thought: POLI 4080, POLI 4081, POLI 4082

Contemporary Political Thought: POLI 4096, POLI 4097, POLI 4098

Each field has a special topics course available that may be taken for up to six hours of credit when topics vary. These courses are: POLI 4000 (American Government & Politics); POLI 4040 (International Politics & Law); POLI 4060 (Comparative Government & Politics); and POLI 4090 (Political Theory). In addition, POLI 4996, POLI 4997, POLI 4998, and POLI 4999 may count toward a political science field with approval of the departmental advisor.

# **Public Policy**

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: POLI 2051. SEMESTER 3: Approved POLI field course; First Course in Foreign Language Sequence; Admission to the College. SEMESTER 4: Approved POLI field course; Second Course in Foreign Language Sequence. SEMESTER 5: Approved POLI field course.

#### Semester 1

Critical: "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- POLI 1001 Fundamental Issues of Politics (3) <sup>1</sup>
- First Course in Foreign Language Sequence (4)
- General Education Course Natural Sciences (3)<sup>2</sup>
- General Education Course Analytical Reasoning (from Mathematics) (3)

#### Total Semester Hours: 16

#### Semester 2

Critical: POLI 2051.

- POLI 2051 American Government (3)
- Second Course in Foreign Language Sequence (4)
- General Education Course Humanities (3)
- General Education Course Natural Sciences (3)<sup>2</sup>
- Approved Elective (0-2)
- Total Semester Hours: 13-15

## Semester 3

**Critical:** Approved POLI Field Course; First Course in Foreign Language Sequence; Admission to the College

- Third Course in Foreign Language Sequence (4-3)
- Approved POLI Field Course (3)<sup>3</sup>
- General Education Course Natural Sciences (3)<sup>2</sup>
- General Education Course -Analytical Reasoning (3)
- Approved Elective (3)

#### Total Semester Hours: 16-15 Semester 4

**Critical:** Approved POLI Field Course; Second Course in Foreign Language Sequence

- ENGL 2000 English Composition (3)
- Fourth Course in Foreign Language Sequence (4-3)
- General Education Course Humanities (3)
- Approved POLI field Course (3)<sup>3</sup>
- Total Semester Hours: 13-12

# Semester 5

**CRITICAL:** Approved POLI field course.

- First and Second Course in Public Policy (6)<sup>4</sup>
- Approved POLI field course (3)<sup>3</sup>
- General Education Course Social Sciences (3)
- General Education Course Arts (3)

#### Total Semester Hours: 15 Semester 6

- Third and Fourth Courses in Public Policy (6)<sup>4</sup>
- Approved POLI Courses (6)
- General Education Course Humanities (3)

#### Total Semester Hours: 15 Semester 7

• Approved Electives (16)

## Total Semester Hours: 16 Semester 8

• Approved Electives (16)

# Total Semester Hours: 16 120 Total Sem. Hrs.

1 - POLI 1001 recommended but not required. If POLI 1001 is not taken, add three hours of approved POLI courses.

2 - If a two-course sequence is taken in the

physical sciences, then the three-hour course must be from the life sciences and vice versa.

3 - Political Science courses are divided into four fields: (1) American government and politics; (2) comparative government and politics; (3) international politics and law; and (4) political theory.

All students take Introduction to American Government (POLI 2051 or POLI 2052) and must take one course from each of the other three fields as follows:

# American Government & Politics

- General: POLI 2051 POLI 2052 POLI 4000
- Political Behavior: POLI 2030 POLI 4026 POLI 4028 POLI 4030 POLI 4031 POLI 4032 POLI 4034 POLI 4035 POLI 4036
- Public Law & Jurisprudence: POLI 4020 POLI 4021 POLI 4023
- Public Administration: POLI 2070 POLI 4011 POLI 4017
- State, Urban, Local Government: POLI 2056 POLI 4015 POLI 4039

Comparative Government & Politics

- General: POLI 2053 POLI 4060 POLI 4062 POLI 4063 POLI 4064
- Western Europe: POLI 4074 POLI 4075 POLI 4076 POLI 4077
- Latin America: POLI 4065
- Russia & Eastern Europe: POLI 4070 POLI 4072
- Asia: POLI 4067 POLI 4079
- Africa: POLI 4078
- Middle East: POLI 4061

#### **International Politics & Law**

- International Politics: POLI 2057 POLI 4040 POLI 4044 POLI 4045 POLI 4046 POLI 4047 POLI 4048 POLI 4050 POLI 4059
- International Law & Organization: POLI 4041 POLI 4042
- Foreign Policy: POLI 4043
- Political Theory
  - Political Theory, General: POLI 2060 POLI 4090
  - History of Political Thought: POLI 4080 POLI 4081 POLI 4082
  - Contemporary Political Thought: POLI 4096 POLI 4097 POLI 4098

Each field has a special topics course available that may be taken for up to six hours of credit when topics vary. These courses are: POLI 4000 (American Government and Politics); POLI 4040 (International Politics and Law); POLI 4060 (Comparative Government and Politics); and POLI 4090 (Political Theory). In addition, POLI 4996, POLI 4997, POLI 4998, and POLI 4999 may count toward a political science field with approval of the departmental advisor.

## <sup>4</sup>- Public Policy

• Public Policy, General: POLI 2070 POLI 4035

- Topics in Public Policy: POLI 4011 POLI 4015 POLI 4017
- Foreign Policy: POLI 4043

# **Race & Politics**

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: POLI 2051. SEMESTER 3: Approved POLI course; First Course in Foreign Language Sequence; Admission to the College. SEMESTER 4: Approved POLI course; Second Course in Foreign Language Sequence. SEMESTER 5: Approved POLI course.

#### Semester 1

Critical: "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- POLI 1001 Fundamental Issues of Politics (3) <sup>1</sup>
- First Course in Foreign Language Sequence (4)
- General Education Course Natural Sciences (3)<sup>2</sup>
- General Education Course Analytical Reasoning (from Mathematics) (3)

## Total Semester Hours: 16

#### Semester 2

Critical: POLI 2051.

- POLI 2051 American Government (3)
- Second Course in Foreign Language Sequence (4)
- General Education Course Humanities (3)
- General Education Course Natural Sciences (3)<sup>2</sup>
- Approved Elective (0-2)
- Total Semester Hours: 13-15

#### Semester 3

**Critical:** Approved POLI Field Course; First Course in Foreign Language Sequence; Admission to the College

- Third Course in Foreign Language Sequence (4-3)
- Approved POLI Field Course (3)<sup>3</sup>
- General Education Course Natural Sciences (3)<sup>2</sup>
- General Education Course -Analytical Reasoning (3)
- Approved Elective (3)

#### Total Semester Hours: 16-15 Semester 4

**Critical:** Approved POLI Field Course; Second Course in Foreign Language Sequence

- ENGL 2000 English Composition (3)
- Fourth Course in Foreign Language Sequence (4-3)
- General Education Course Humanities (3)
- Approved POLI field Course (3)<sup>3</sup>

# Total Semester Hours: 13-12

#### Semester 5

**CRITICAL:** Approved POLI field course.

- First and Second Course in Race & Politics (6)<sup>4</sup>
- Approved POLI field course (3)<sup>3</sup>
- General Education Course Social Sciences (3)
- General Education Course Arts (3)

# Total Semester Hours: 15

# Semester 6

- Third and Fourth Courses in Race & Politics (6)<sup>4</sup>
- Approved POLI Courses (6)
- General Education Course Humanities (3)

# Total Semester Hours: 15 Semester 7

• Approved Electives (16)

Total Semester Hours: 16 Semester 8

• Approved Electives (16)

# Total Semester Hours: 16

#### 120 Total Sem. Hrs.

1 - POLI 1001 recommended but not required. If POLI 1001 is not taken, add three hours of approved POLI courses.

2 - If a two-course sequence is taken in the physical sciences, then the three-hour course must be from the life sciences and vice versa.

3 - Political Science courses are divided into four fields: (1) American government and politics; (2) comparative government and politics; (3) international politics and law; and (4) political theory.

All students take Introduction to American Government (POLI 2051 or POLI 2052) and must take one course from each of the other three fields as follows:

## American Government & Politics

- General: POLI 2051 POLI 2052 POLI 4000
- Political Behavior: POLI 2030 POLI 4026 POLI 4028 POLI 4030 POLI 4031 POLI 4032 POLI 4034 POLI 4035 POLI 4036
- Public Law & Jurisprudence: POLI 4020 POLI 4021 POLI 4023
- Public Administration: POLI 2070 POLI 4011 POLI 4017
- State, Urban, Local Government: POLI 2056 POLI 4015 POLI 4039

#### Comparative Government & Politics

- General: POLI 2053 POLI 4060 POLI 4062 POLI 4063 POLI 4064
- Western Europe: POLI 4074 POLI 4075 POLI 4076 POLI 4077
- Latin America: POLI 4065
- Russia & Eastern Europe: POLI 4070 POLI 4072
- Asia: POLI 4067 POLI 4079
- Africa: POLI 4078
- Middle East: POLI 4061

#### **International Politics & Law**

- International Politics: POLI 2057 POLI 4040 POLI 4044 POLI 4045 POLI 4046 POLI 4047 POLI 4048 POLI 4050 POLI 4059
- International Law & Organization: POLI 4041 POLI 4042
- Foreign Policy: POLI 4043

Political Theory

- Political Theory, General: POLI 2060 POLI 4090
- History of Political Thought: POLI 4080 POLI 4081 POLI 4082
- Contemporary Political Thought: POLI 4096 POLI 4097 POLI 4098

Each field has a special topics course available that may be taken for up to six hours of credit when topics vary. These courses are: POLI 4000 (American Government and Politics); POLI 4040 (International Politics and Law); POLI 4060 (Comparative Government and Politics); and POLI 4090 (Political Theory). In addition, POLI 4996, POLI 4997, POLI 4998, and POLI 4999 may count toward a political science field with approval of the departmental advisor.

<sup>4</sup>- Race & Politics

- Politics & Elections: POLI 4039
- Constitutional & Political Thought: POLI 4021 POLI 4080
- Race and the Media: MC 3333 MC 3505
- Cross-Disciplinary Perspectives: HIST
   2061 SOCL 2511

# Psychology, B.S. (3+3 Pre-Law Program) Psychology

# CRITICAL REQUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001; 2.5 cumulative and LSU GPA.

SEMESTER 2: MATH 1021; 2.5 cumulative and LSU GPA.

SEMESTER 3: PSYC 2000/PSYC 2001; First Course in Foreign Language Sequence; Admission to the College; 2.5 cumulative and LSU GPA.

SEMESTER 4: PSYC 2005; PSYC 2016; Second Course in Foreign Language Sequence; 2.5 cumulative and LSU GPA.

SEMESTER 5: ENGL 2000; PSYC 2017; 2.5 cumulative and LSU GPA.

SEMESTER 7: PSYC 4005

Consult "General Education" section of the catalog for the general education requirements.

Consult "Degree Requirements of the College" for this college for specific instructions regarding approved electives and foreign language requirements.

# Semester 1

**CRITICAL:** "C" or better in ENGL 1001; 2.5 cumulative and LSU GPA.

- ENGL 1001 English Composition (3)
- MATH 1021 College Algebra (3)
- First Course in Foreign Language Sequence (4)
- General Education Course Natural Sciences (3)<sup>1</sup>
- Natural Sciences Lab (0-1)

# Total Semester Hours: 13-14 Semester 2

**CRITICAL:** MATH 1021; 2.5 cumulative and LSU GPA.

- MATH 1022 Plane Trigonometry (3) or
- MATH 1431 Calculus with Business and Economic Applications (3)
- Second Course in Foreign Language Sequence (4)
- General Education Course Humanities (3)<sup>2</sup>
- General Education Course Natural Sciences (3)<sup>1</sup>
- Natural Sciences Lab (2-1)

# Total Semester Hours: 15-14

# Semester 3

**CRITICAL:** PSYC 2000/PSYC 2001; First Course in Foreign Language Sequence; Admission to the College; 2.5 cumulative and LSU GPA.

- PSYC 2000 Introduction to Psychology (3) or
- PSYC 2001 HONORS: Introduction to Psychology (3)
- PSYC 2005 Introduction to the Psychology Major (1)
- General Education Course Humanities (6)<sup>2</sup>
- General Education Course Natural Sciences (3)<sup>1</sup>
- Third Course in Foreign Language Sequence (4-3)

# Total Semester Hours: 17-16

#### Semester 4

**CRITICAL:** PSYC 2005; PSYC 2016; Second Course in Foreign Language Sequence; 2.5 cumulative and LSU GPA.

- ENGL 2000 English Composition (3)
- PSYC 2016 Statistics for the Behavioral Sciences (4)
- Fourth Course in Foreign Language Sequence (4-3)
- General Education Course Natural Sciences (3)<sup>1</sup>
- Approved Elective (0-2)

# Total Semester Hours: 14-15

#### Semester 5

**CRITICAL:** ENGL 2000; PSYC 2017; 2.5 cumulative and LSU GPA.

• PSYC 2017 Research Methods in Psychology (4)

- Approved PSYC Electives (6)<sup>3</sup>
- General Education Course Arts (3)
- General Education Course Social Sciences (from field other than psychology) (3)

# Semester 6

- PSYC 4005 Psychology Capstone (1)
- PSYC 4008 History of Modern Psychology (3)
- Approved PSYC Electives (6)<sup>3</sup>
- General Education Course Social Sciences (from field other than psychology) (3)

# Total Semester Hours: 13

Semester 7

- Critical: PSYC 4005
  - Approved PSYC Electives (6) <sup>3,4</sup>
  - Approved Electives (10)

# Total Semester Hours: 16 Semester 8

• Approved Electives (16)

# Total Semester Hours: 16 120 Total Sem. Hrs.

<sup>1</sup> - For General Education Natural Sciences, both physical & life sciences must be taken: six hours in a physical/life sciences sequence and two hours lab credit associated with the sequence chosen; six hours in an area (phys/life) not previously selected.

<sup>2</sup> - Two General Education Humanities courses must be from history and one from among the literature courses on the General Education Humanities list.

<sup>3</sup> - Students majoring in psychology must take an extra three credit hours of natural sciences lecture and two credit hours of natural sciences laboratory *beyond* the minimum general education natural sciences requirements.

- Basics (required of all majors): PSYC 2000 or PSYC 2001; PSYC 2005; PSYC 2016; PSYC 2017; and PSYC 4008
- *Core Areas* (students must complete a course from four areas):
  - a. *Advanced Methods*: PSYC 3020 or PSYC 4111
  - b. *Biological Basis*: PSYC 4031 or PSYC 4034 or PSYC 4035 or PSYC 4037
  - c. Learning and Cognition: PSYC 4030 or PSYC 4032 or PSYC 4033 or PSYC 4041
  - d. Developmental Processes: PSYC 4070 or PSYC 4072 or PSYC 4176
  - e. *Applied/Social:* PSYC 3050 or PSYC 3083 or PSYC 3140 or or PSYC 4080
- Additional Electives: PSYC 2040, PSYC 3030, PSYC 3081, PSYC 3082, PSYC 4039, PSYC 4040, PSYC 4042.
- *Excluded Electives*: PSYC 2060, PSYC 2070, PSYC 2076, PSYC 2078, PSYC 2999, PSYC 4999. These courses will not count toward the 33

hours required in the major but are permissible electives above the 33-hour minimum. Students choosing the honors option will enroll in three to six hours of PSYC 4999, in addition to the 33 hours required in the major.

<sup>4</sup> - Six hours of first year law coursework will substitute for six hours of PSYCS major coursework.

# Screen Arts, B.A. (3+3 Pre-Law Program)

- History, Theory, & Criticism
- Production
- Screenwriting

# History, Theory, & Criticism CRITICAL REQUIREMENTS

**SEMESTER 1:** "C" or better in ENGL 1001. **SEMESTER 2:** General Education course - Analytical Reasoning.

**SEMESTER 3:** General Education course - Natural Sciences; Admission to the College. **SEMESTER 4:** First Course in Foreign Language Sequence.

SEMESTER 5: ENGL 2000.

# Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- General Education course Analytical Reasoning (3)
- First Course in Foreign Language Sequence (4)
- General Education course Natural Sciences (3)<sup>1</sup>
- Approved Elective (0-2)

# Total Semester Hours: 13-15

# Semester 2

**CRITICAL:** General Education course - Analytical Reasoning.

- ENGL 2423 Introduction to Folklore (3) or
- ANTH 2423 Introduction to Folklore (3)
- Second Course in Foreign Language Sequence (4)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Humanities (3)
- Approved Electives (2)

# Total Semester Hours: 15

# Semester 3

**CRITICAL:** General Education course - Natural Sciences; Admission to the College.

- SCRN 2001 Introduction to Screen Arts (3)
- ENGL 2231 Reading Film (3)
- Third Course in Foreign Language Sequence (4-3)
- General Education course Analytical Reasoning (from mathematics) (3)

## • History, Theory, & Criticism Elective (3)<sup>2</sup>

#### Total Semester Hours: 16-15

# Semester 4

**CRITICAL:** First Course in Foreign Language Sequence.

- ENGL 2000 English Composition (3)
- Fourth Course in Foreign Language Sequence (4-3)
- General Education course Natural Sciences (3)<sup>1</sup>
  - Select 1 of 3 courses:
- Area of Concentration Course  $(3)^2$  or
- Digital Media Elective (3)<sup>3</sup> or
- Digital Media Theory Elective (3)<sup>5</sup>

# Total Semester Hours: 13-12 Semester 5

#### Semester 5

CRITICAL: ENGL 2000.

- SCRN 3001 Special Topics in Screen Arts (3)
- CMST 3012 History of Film (4)
- General Education course Social Sciences (3)
- General Education course Arts (3)
- Production Elective (3)<sup>2</sup>

# Total Semester Hours: 16 Semester 6

- CMST 2040 Introduction to Performing Literature (3)
- SCRN 4001 Advanced Topics in Screen Arts (3)
- SCRN Production Focus Course (3)<sup>4</sup>
- Approved Electives (6)<sup>2</sup>

# Total Semester Hours: 15 Semester 7

• Approved Electives (10)

Select 2 of 3 courses<sup>6</sup>:

- Area of Concentration Course (3)<sup>2</sup>
- Digital Media Elective (3)<sup>3</sup>
- Digital Media Theory Elective (3)<sup>5</sup>

# **Total Semester Hours: 16**

# Semester 8

• Approved Electives (16)

# Total Semester Hours: 16 120 Total Semester Hours

<sup>1</sup>- If a two-course sequence is taken in the physical sciences, then the three-hour course must be from the life sciences and vice versa.

2- In addition to the nine hours of required core courses (SCRN 2001, SCRN 3001, SCRN 4001), 19 hours of SCRN core courses must be completed, with an additional nine hours in a concentration from one of the three concentration areas: 1) History, Theory, & Criticism; 2) Screenwriting; 3) Production. Nine hours of General Education coursework overlap with major and concentration requirements (CMST 2040, ENGL 2231 = Humanities; ENGL 2423/ANTH 2423 = Social Sciences). Note: This course listing is not exhaustive. Courses from participating departments that are relevant to SCRN may be counted toward the concentration requirements with prior approval from the program director.

# History, Theory, & Criticism:

- ENGL 3133
- ENGL 3222
- ENGL 4133
- ENGL 4231
- AAAS 2410
- CHIN 2070
- CMST 2012
- CMST 3013
- CMST 3107
- CMST 4312
- FREN 4031
- GERM 4046
- SCRN 3001
- SCRN 3030
- SCRN 3502
- SCRN 3503
- SCRN 4001
- PHIL 3002
- PHIL 4002
- WGS 2200

# Production:

- SCRN 4001 (Required if the Production Concentration is chosen)
- ENGL 2009 (Required if the Production Concentration is chosen)
- Choose 3 hours from:

0	SCRN 301	(

0	SCRN	3011
-	CODM	2010

- SCRN 3012
   SCRN 3014
- SCRN 3014
   SCRN 3030
- SCRN 3030
   SCRN 4012
- SCRN 4012
   SCRN 4014
- SCRN 4015
- THTR 3026
- THTR 3900
- THTR 4026
- THTR 4138
- o ENGL 4009
- 0 ART 2210
- ART 2220
- ART 2230
- ART 4220
- ART 4230
- ART 4240

<sup>3</sup>- Choose three hours from the following: ART 2050, CSC 2463, MUS 2745

<sup>4</sup>- Choose three hours from the following: SCRN 3010, SCRN 3011

<sup>5</sup>- Choose three hours from the following: ARTH 4468, ARTH 4480, ARTH 4482, ARTH 4484

<sup>6</sup>- Six hours of the first year law coursework will substitute for six hourse of SCRN major/concentration coursework.

# Production CRITICAL REQUIREMENTS

**SEMESTER 1:** "C" or better in ENGL 1001. **SEMESTER 2:** General Education course - Analytical Reasoning.

**SEMESTER 3:** General Education course - Natural Sciences; Admission to the College. **SEMESTER 4:** First Course in Foreign Language Sequence.

SEMESTER 5: ENGL 2000.

# Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- General Education course Analytical Reasoning (3)
- First Course in Foreign Language Sequence (4)
- General Education course Natural Sciences (3)<sup>1</sup>
- Approved Elective (0-2)

# Total Semester Hours: 13-15

## Semester 2

**CRITICAL:** General Education course - Analytical Reasoning.

- ENGL 2423 Introduction to Folklore (3) or
- ANTH 2423 Introduction to Folklore (3)
- Second Course in Foreign Language Sequence (4)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Humanities (3)
- Approved Electives (2)

# Total Semester Hours: 15

# Semester 3

**CRITICAL:** General Education course - Natural Sciences; Admission to the College.

- SCRN 2001 Introduction to Screen Arts (3)
- ENGL 2231 Reading Film (3)
- Third Course in Foreign Language Sequence (4-3)
- General Education course Analytical Reasoning (from mathematics) (3)
- History, Theory, & Criticism Elective (3)<sup>2</sup>

#### **Total Semester Hours: 16-15**

# Semester 4

**CRITICAL:** First Course in Foreign Language Sequence.

- ENGL 2000 English Composition (3)
- Fourth Course in Foreign Language Sequence (4-3)
- General Education course Natural Sciences (3)<sup>1</sup>

Select 1 of 3 courses:

• Area of Concentration Course  $(3)^2$  or

- Digital Media Elective (3)<sup>3</sup> or
- Digital Media Theory Elective (3)<sup>5</sup>

# Total Semester Hours: 13-12 Semester 5

CRITICAL: ENGL 2000.

- SCRN 3001 Special Topics in Screen Arts (3)
- CMST 3012 History of Film (4)
- General Education course Social Sciences (3)
- General Education course Arts (3)
- Production Elective (3)<sup>2</sup>

# Total Semester Hours: 16 Semester 6

- CMST 2040 Introduction to Performing Literature (3)
- SCRN 4001 Advanced Topics in Screen Arts (3)
- SCRN Production Focus Course (3)<sup>4</sup>
- Area of Concentration Courses (6)<sup>2</sup>

# Total Semester Hours: 15

# Semester 7

• Approved Electives (10)

Select 2 of 3 courses<sup>6</sup>:

- Area of Concentration Course (3)<sup>2</sup>
- Digital Media Elective (3)<sup>3</sup>
- Digital Media Theory Elective (3)<sup>5</sup>

# Total Semester Hours: 16 Semester 8

• Approved Electives (16)

# Total Semester Hours: 16 120 Total Semester Hours

<sup>1</sup> - If a two-course sequence is taken in the physical sciences, then the three-hour course must be from the life sciences and vice versa.

2- In addition to the nine hours of required core courses (SCRN 2001, SCRN 3001, SCRN 4001), 19 hours of SCRN core courses must be completed, with an additional nine hours in a concentration from one of the three concentration areas: 1) History, Theory, & Criticism; 2) Screenwriting; 3) Production. Nine hours of General Education coursework overlap with major and concentration requirements (CMST 2040, ENGL 2231 = Humanities; ENGL 2423/ANTH 2423 = Social Sciences). Note: This course listing is not exhaustive. Courses from participating departments that are relevant to SCRN may be counted toward the concentration requirements with prior approval from the program director.

#### History, Theory, & Criticism:

- ENGL 3133
- ENGL 3222
- ENGL 4133
- ENGL 4231
- AAAS 2410
- CHIN 2070

- CMST 2012
- CMST 3013
- CMST 3107
- CMST 4312
- FREN 4031
- GERM 4046
- SCRN 3001
- SCRN 3030
- SCRN 3502
- SCRN 3503
- SCRN 4001
- PHIL 3002
- PHIL 4002
- WGS 2200

#### Production:

- SCRN 4001 (Required if the Production Concentration is chosen)
- ENGL 2009 (Required if the Production Concentration is chosen)
- Choose 3 hours from:
  - o SCRN 3010
  - SCRN 3011
  - SCRN 3012
  - SCRN 3014
     SCRN 3030
  - SCRN 3030
     SCRN 4012
  - SCRN 4012
     SCRN 4014
  - SCRN 4014
     SCRN 4015
  - THTR 3026
  - THTR 3900
  - THTR 4026
  - THTR 4138
  - ENGL 4009
  - o ART 2210
  - ART 2220
  - o ART 2230
  - ART 4220
  - ART 4220
     ART 4230
  - ART 4240
- <sup>3</sup>- Choose three hours from the following: ART 2050, CSC 2463, MUS 2745
- <sup>4</sup>- Choose three hours from the following: SCRN 3010, SCRN 3011
- <sup>5</sup>- Choose three hours from the following: ARTH
- 4468, ARTH 4480, ARTH 4482, ARTH 4484

<sup>6</sup>- Six hours of the first year law coursework will substitute for six hourse of SCRN major/concentration coursework.

# Screenwriting critical requirements

**SEMESTER 1:** "C" or better in ENGL 1001. **SEMESTER 2:** General Education course - Analytical Reasoning.

**SEMESTER 3:** General Education course - Natural Sciences; Admission to the College.

SEMESTER 4: First Course in Foreign Language Sequence. SEMESTER 5: ENGL 2000.

# Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- General Education course Analytical Reasoning (3)
- First Course in Foreign Language Sequence (4)
- General Education course Natural Sciences (3)<sup>1</sup>
- Approved Elective (0-2)

# Total Semester Hours: 13-15

#### Semester 2

**CRITICAL:** General Education course - Analytical Reasoning.

- ENGL 2423 Introduction to Folklore (3) or
- ANTH 2423 Introduction to Folklore (3)
- Second Course in Foreign Language Sequence (4)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Humanities (3)
- Approved Electives (2)
- Total Semester Hours: 15

# Semester 3

**CRITICAL:** General Education course - Natural Sciences; Admission to the College.

- SCRN 2001 Introduction to Screen Arts (3)
- ENGL 2231 Reading Film (3)
- Third Course in Foreign Language Sequence (4-3)
- General Education course Analytical Reasoning (from mathematics) (3)
- History, Theory, & Criticism Elective (3)<sup>2</sup>
- Total Semester Hours: 16-15

# Semester 4

CRITICAL: First Course in Foreign Language Sequence.

- ENGL 2000 English Composition (3)
- Fourth Course in Foreign Language Sequence (4-3)
- General Education course Natural Sciences (3)<sup>1</sup>

Select 1 of 3 courses:

- Area of Concentration Course  $(3)^2$  or
- Digital Media Elective (3)<sup>3</sup> or
- Digital Media Theory Elective (3)<sup>5</sup>

**Total Semester Hours: 13-12** 

# Semester 5

CRITICAL: ENGL 2000.

- SCRN 3001 Special Topics in Screen Arts (3)
- CMST 3012 History of Film (4)
- General Education course Social Sciences (3)
- General Education course Arts (3)

• Production Elective (3)<sup>2</sup>

# Total Semester Hours: 16 Semester 6

- CMST 2040 Introduction to Performing Literature (3)
- SCRN 4001 Advanced Topics in Screen Arts (3)
- SCRN Production Focus Course (3)<sup>4</sup>
- Area of Concentration Courses (6)<sup>2</sup>
- Total Semester Hours: 15

# Semester 7

• Approved Electives (10)

Select 2 of 3 courses<sup>6</sup>:

- Area of Concentration Course (3)<sup>2</sup>
- Digital Media Elective (3)<sup>3</sup>
- Digital Media Theory Elective (3)<sup>5</sup>

# Total Semester Hours: 16 Semester 8

• Approved Electives (16)

# Total Semester Hours: 16 120 Total Semester Hours

<sup>1</sup> - If a two-course sequence is taken in the physical sciences, then the three-hour course must be from the life sciences and vice versa.

<sup>2</sup>- In addition to the nine hours of required core courses (SCRN 2001, SCRN 3001, SCRN 4001), 19 hours of SCRN core courses must be completed, with an additional nine hours in a concentration from one of the three concentration areas: 1) History, Theory, & Criticism; 2) Screenwriting; 3) Production. Nine hours of General Education coursework overlap with major and concentration requirements (CMST 2040, ENGL 2231 = Humanities; ENGL 2423/ANTH 2423 = Social Sciences). Note: This course listing is not exhaustive. Courses from participating departments that are relevant to SCRN may be counted toward the concentration requirements with prior approval from the program director.

## History, Theory, & Criticism:

- ENGL 3133
- ENGL 3222
- ENGL 4133
- ENGL 4231
- AAAS 2410
- CHIN 2070
- CMST 2012
- CMST 2012
   CMST 3013
- CMST 3013
   CMST 3107
- CMST 3107
   CMST 4312
- CM31 4312
  FREN 4031
- FREN 4031
   CEDM 4044
- GERM 4046
   SCRN 3001
- SCRN 3001
- SCRN 3030
- SCRN 3502

- SCRN 3503
- SCRN 4001
- PHIL 3002
- PHIL 4002
- WGS 2200

#### Screenwriting:

- ENGL 2009 (Required if the Screenwriting Concentration is chosen)
- ENGL 4009 (Required if the Screenwriting Concentration is chosen)
  - Choose 3 hours from:
    - ENGL 2005
    - ENGL 2008
    - ENGL 2029
    - o ENGL 4000
    - o CMST 2060
    - CMST 3040
    - SCRN 3030

#### **Production:**

- SCRN 4001 (Required if the Production Concentration is chosen)
- ENGL 2009 (Required if the Production Concentration is chosen)
- Choose 3 hours from:
  - SCRN 3010
    - SCRN 3011
    - SCRN 3012
    - SCRN 3014
    - SCRN 3030
  - SCRN 4012
  - SCRN 4014
     SCRN 4015
  - SCRN 4015
     THTR 3026
  - THTR 3020
  - THTR 3900
  - THTR 4020
     THTR 4138
  - ENGL 4009
  - ART 2210
  - ART 2220
  - ART 2220
  - ART 4220
  - ART 4230
  - ART 4240

<sup>3</sup>- Choose three hours from the following: ART 2050, CSC 2463, MUS 2745

<sup>4</sup>- Choose three hours from the following: SCRN 3010, SCRN 3011

<sup>5</sup>- Choose three hours from the following: ARTH

- 4468, ARTH 4480, ARTH 4482, ARTH 4484
- <sup>6</sup>- Six hours of the first year law coursework will substitute for six hourse of SCRN major/concentration coursework.

Sociology, B.A. (3+3 Pre-Law Program) Sociology CRITICAL REOUIREMENTS

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: MATH 1021.

SEMESTER 3: "C" or better in SOCL 2001(SOCL 2002);

First Course in Foreign Language Sequence; Admission to the College.

SEMESTER 4: "C" or better in SOCL 2201; Second Course in Foreign Language Sequence.

SEMESTER 5: ENGL 2000; "C" or better in SOCL 2211. A grade of "C" or higher must be earned in SOCL 2001, SOCL 2201, SOCL 2211, and SOCL 3101. Sociology majors are strongly advised to schedule all College of Humanities & Social Sciences and departmental lowerlevel requirements in their first two years.

# Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- MATH 1021 College Algebra (3)
- First Course in Foreign Language Sequence (4)
- General Education Course Natural Sciences (3)<sup>1</sup>
- General Education Course Humanities (3)

# Total Semester Hours: 16

# Semester 2

CRITICAL: MATH 1021.

- SOCL 2001 Introductory Sociology (3) or
- SOCL 2002 HONORS: Introductory Sociology (3)
- Second Course in Foreign Language Sequence (4)
- General Education Course Analytical Reasoning (3)
- General Education Course Natural Sciences (3)<sup>1</sup>

# **Total Semester Hours: 13**

# Semester 3

**CRITICAL:** "C" or better in SOCL 2001(SOCL 2002); First Course in Foreign Language Sequence; Admission to the College.

- SOCL 2201 Introduction to Statistical Analysis (4)
- Third Course in Foreign Language Sequence (4-3)
- General Education Course Natural Sciences (3)<sup>1</sup>
- General Education Course Humanities (3)
- Approved Elective (3)

# Total Semester Hours: 17-16 Semester 4

**CRITICAL:** "C" or better in SOCL 2201; Second Course in Foreign Language Sequence.

- ENGL 2000 English Composition (3)
- SOCL 2211 Methods of Sociological Research (3)
- Fourth Course in Foreign Language Sequence (4-3)

- General Education Course Humanities (3)
- Approved Elective (1-2)

# Total Semester Hours: 14

## Semester 5

**CRITICAL:** ENGL 2000; "C" or better in SOCL 2211.

- SOCL 3101 Sociological Theory (3)
- Approved SOCL Electives (3000-level or above) (6)
- General Education Course Social Sciences (3)
- Approved Elective (1-2)

# Total Semester Hours: 13-14 Semester 6

- Approved SOCL Electives (3000-level or above) (9)
- Approved SOCL Elective (3)
- General Education Course Arts (3)

# Total Semester Hours: 15 Semester 7

• Approved Electives (16)

# Total Semester Hours: 16 Semester 8

• Approved Electives (16)

# Total Semester Hours: 16 120 Total Sem. Hrs.

<sup>1</sup> - If two course natural sciences sequence is taken in the physical sciences, the additional three hour natural sciences course must be from the life sciences, and vice versa.

# Area of Concentration Criminology

Criminology is the study of the nature and causes of crime, patterns of crime, and the social control of criminal behavior.

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001. SEMESTER 2: MATH 1021. SEMESTER 3: "C" or better in SOCL 2001(SOCL 2002); First Course in Foreign Language Sequence; Admission to the College. SEMESTER 4: "C" or better in SOCL 2201; Second Course in Foreign Language Sequence. SEMESTER 5: ENGL 2000; "C" or better in SOCL 2211. A grade of "C" or higher must be earned in SOCL 2201, SOCL 2201, SOCL 2211, and SOCL 3101. Sociology majors are strongly advised to schedule all College of Humanities & Social Sciences and departmental lowerlevel requirements in their first two years.

#### Semester 1

**CRITICAL:** "C" or better in ENGL 1001.

- ENGL 1001 English Composition (3)
- MATH 1021 College Algebra (3)
- First Course in Foreign Language Sequence (4)
- General Education Course Natural Sciences Sequence (3)<sup>1</sup>
- General Education Course Humanities (3)

Total Semester Hours: 16 Semester 2

#### CRITICAL: MATH 1021.

- SOCL 2001 Introductory Sociology (3) or
- SOCL 2002 HONORS: Introductory Sociology (3)
- Second Course in Foreign Language Sequence (4)
- General Education Course Analytical Reasoning (3)
- General Education Course Natural Sciences Sequence (3)<sup>1</sup>

Total Semester Hours: 13

Semester 3

**CRITICAL:** "C" or better in SOCL 2001(SOCL 2002); First Course in Foreign Language Sequence; Admission to the College.

- SOCL 2201 Introduction to Statistical Analysis (4)
- General Education Course Natural Sciences (3)<sup>1</sup>
- General Education Course Humanities (3)
- Third Course in Foreign Language Sequence (4-3)

Total Semester Hours: 14-13

Semester 4

**CRITICAL:** "C" or better in SOCL 2201; Second Course in Foreign Language Sequence.

- ENGL 2000 English Composition (3)
- SOCL 2211 Methods of Sociological Research (3)
- Fourth Course in Foreign Language Sequence (4-3)
- General Education Course Humanities (3)
- Approved Elective (1-2)
- Total Semester Hours: 14

Semester 5

**CRITICAL:** ENGL 2000; "C" or better in SOCL 2211.

- SOCL 3101 Sociological Theory (3)
- SOCL 3371 Sociology of the Criminal Justice System (3)
- SOCL 3501 Sociology of Deviance (3)
- General Education Course Social Sciences (3)
- Approved SOCL Elective (3)

• Approved Elective (1-2)

Total Semester Hours: 16-17 Semester 6

- POLI 4020 American Constitutional Law (3) or
- POLI 4021 The American Constitution and Civil Liberties (3) or
- POLI 4023 Judicial Politics (3)
- SOCL 4461 Criminology (3)
- SOCL 4471 Sociology of Law (3)
- Approved SOCL Elective (3000-level or above) (3)
- General Education Course Arts (3)

Total Semester Hours: 15

#### Semester 7

• Approved Electives (16)

Total Semester Hours: 16 Semester 8

• Approved Electives (16)

#### Total Semester Hours: 16

120 Total Sem. Hrs.

<sup>1</sup> - If two course natural sciences sequence is taken in the physical sciences, the additional three hour natural sciences course must be from the life sciences, and vice versa.

# Spanish, B.A. (3+3 Pre-Law Program) Spanish

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001; SPAN 2101. SEMESTER 2: SPAN 2102.

SEMESTER 3: SPAN 2155, SPAN 2156, SPAN 3010; Admission to the College.

Students majoring in Spanish must receive credit for a minimum of 33 hours in Spanish numbered above SPAN 2102, including SPAN 2155, SPAN 2156, SPAN 3010, SPAN 3020, SPAN 4005 and any four of the following nine: SPAN 3015, SPAN 3043, SPAN 3044, SPAN 3070, SPAN 3071, SPAN 3072, SPAN 3073, SPAN 3074, or SPAN 3980 and at least six hours of 4000 level courses. Native speakers majoring in Spanish must substitute any 3000 or 4000 level Spanish elective for SPAN 2155 and SPAN 2156. Students who have fluency in Spanish may not take courses numbered below 3000. Consult "Degree Requirements of the College" in this section of the catalog for specific instructions regarding electives. Consult "General Education" section of the catalog for the general education requirements. \*\* To participate in the 3+3 option in Spanish, a student must enter LSU with at least eight hours of course credit in SPAN 1101 and SPAN 1102/SPAN 1152 via Advanced Standing or dual enrollment. Students who meet this standard should consult with the Spanish Undergraduate

Advisor each semester to discuss sequencing in the major coursework. This consultation will be required to ensure that the student remains on track to finish their Spanish coursework in a timely manner.\*\*

# Semester 1

#### PRIOR TO SEMESTER 1: EARN COURSE CREDIT IN SPAN 1101 AND SPAN 1102/SPAN 1152. CRITICAL: "C" or better in ENGL 1001; SPAN 2101.

- ENGL 1001 English Composition (3)
- SPAN 2101 Intermediate Spanish (3)
- General Education Course Analytical Reasoning (from Mathematics Department) (3)
- General Education Course Natural Sciences (3)<sup>1</sup>
- General Education Course Humanities (3)

# Total Semester Hours: 15 Semester 2

CRITICAL: SPAN 2102.

- SPAN 2102 Intermediate Spanish (3)
- General Education Course Humanities (3)
- General Education Course Social Sciences (3)
- General Education Course Natural Sciences (3)<sup>1</sup>
- Approved Elective/ROTC (2)

# Total Semester Hours: 14 Semester 3

**CRITICAL:** SPAN 2155, SPAN 2156, SPAN 3010; Admission to the College.

- SPAN 2155 Spanish Language and Culture (3)
- SPAN 2156 Intermediate Oral Communication (3)
- SPAN 3010 Spanish Grammar and Composition (3)

# • General Education Course - Natural Sciences (3)<sup>1</sup> Total Semester Hours: 12

# Semester 4

- SPAN 3020 Literary Analysis (3)
- ENGL 2000 English Composition (3)
- General Education Course Analytical Reasoning (3)
- Spanish Electives (6)<sup>2</sup>

#### **Total Semester Hours: 15**

\*\*It is strongly recommended that students pursuing the 3+3 option in Spanish study abroad with one of the LSU Abroad programs in Spanish during the summer 3073, SPAN 3074, SPAN 3980. between semesters four and five. Students participating in these study abroad programs are encouraged to apply for the study abroad scholarships offered through the College of Humanities & Social Sciences to help defray the costs of their abroad experience. Students should also consult closely with their Spanish faculty advisor in selecting the Spanish electives required in semesters five and six of the 3+3 option.\*\*

# Semester 5

- SPAN 4005 Structure of the Spanish Language (3)
- General Education Course Social Sciences (2000-level) (3)
- Spanish Elective (3)<sup>2</sup>
- Spanish Elective: 4000-level (3)<sup>2</sup>

Total Semester Hours: 12

# Semester 6

- Spanish Elective (3)<sup>2</sup>
- Spanish Elective: 4000-level (3)<sup>2</sup>
- General Education Course Humanities (3)
- General Education Course Arts (3)

# Total Semester Hours: 12 Semester 7

• Approved Electives (16)

# Total Semester Hours: 16 Semester 8

• Approved Electives (16)

# Total Semester Hours: 16 120 Total Sem. Hrs.

<sup>1</sup> - If two-course sequence is taken in the physical sciences, then the three-hour course must be taken from the life sciences and vice versa.

<sup>2</sup> - SPANISH ELECTIVES: Take two 4000-level courses, and choose four from SPAN 3015, SPAN 3043, SPAN 3044, SPAN 3070, SPAN 3071, SPAN 3072, SPAN

# **School of Mass Communication**

JERRY CEPPOS Dean; William Dickinson Distinguished Professor	ANDREA MILLER Associate Dean for Undergraduate Studies and Administration; Huie-Dellmon Endowed Professor			
MARTIN JOHNSON	COURTNI GUIDRY			
Associate Dean for Graduate Studies and Research	Assistant Dean for Student Services			
211 Journalism Building TELEPHONE 225-578-2336				
FAX 225-578-2125				

School and Curricula

Manship School of Mass Communication

# **Mission of the Manship School**

The mission of the Manship School of Mass Communication is to produce highly competent communicators with broad knowledge and training in the liberal arts and the media. The school promotes effective communication, critical thinking, and ethical responsibility. Overall, and especially in the graduate program, the school is committed to leading the study and practice of media and public affairs. Believing that media should reflect society and provide leadership to society, the school seeks diversity in its outlook, student body, and staff.

The Manship School of Mass Communication offers an undergraduate degree in Mass Communication (BAMC). Refer below for specific information concerning the undergraduate degree requirements for the *Bachelor of Arts in Mass Communication*.

# **Admission Requirements**

Admission to the Manship School is competitive. At a minimum, applicants must have completed at least 30 hours of collegelevel course work, including MC 2010, *Media Writing*, with a course grade of "B" or better. Applicants presenting the highest qualifications will be accepted into the Manship School each semester of the academic year. Students with a 3.00 LSU GPA and a 3.00 cumulative GPA will be given priority for admission on a space available basis. Grade point average will remain the primary factor for admission, but secondary factors taken into account include the need to balance enrollment among the school's areas of concentration, demographic diversity, demonstrated professional potential through work on high school or college media, or other life experiences that suggest a strong likelihood of success as a communication professional.

*Application Process* • Students should apply by the Friday of the final week of classes of the semester in which they will have completed the 30 hours of course work and earned a "B" or better in MC 2010; however, they may apply at any time after they have met the minimum criteria. Applications for admission to the Manship School must be submitted directly to the school's main office. The school's Application Review Committee will attempt to notify applicants of admission decisions prior to the first day of class each semester. Students who are denied admission may reapply for admission in a subsequent semester.

*Transfer Students* • Transfer students from another institution must meet university transfer admission requirements. Transfer students must complete a minimum of 12 hours of course work on the LSU campus with at least a 3.00 LSU GPA and a 3.00 cumulative GPA to be eligible for admission to the Manship School. All other admission guidelines and procedures described above also apply to transfer students.

# **Laptop Computer Requirement**

Students declaring a major or minor in Mass Communication are required to have their own laptop computer with wireless Internet access upon entering the first Mass Communication class. Information regarding the type specifications and software may be obtained on the Manship website, www.manship.lsu.edu, or from 211 Journalism Building.

# **Transfer of Credit from Other Institutions**

In the Manship School, transfer credits accepted by the Office of Enrollment Management: Undergraduate Admissions shall be valid for degree credit only to the extent to which they satisfy courses in the curriculum of the school. Credit in mass communication courses in which grades of "D" have been earned is not accepted for transfer toward the degree requirements, if the course is taken outside the university (all LSU campuses). Students enrolled in this school who wish to obtain credits from other colleges or universities (including other campuses of LSU), and who plan to use such credits toward degree requirements, should obtain *prior approval* in writing on a specific-course basis from the associate dean for undergraduate studies of the Manship School.

# Readmission

Students who were not registered at LSU for the preceding regular semester must file a formal application for readmission. Readmission to the Manship School is not automatic.

# **Degree Requirements of the School**

To qualify for a bachelor's degree in this school, a candidate must satisfy these requirements:

- A minimum GPA of 2.00 ("A" = 4) on all work taken in the university (all LSU campuses) and on all work taken.
- A minimum GPA in the major field (mass communication) of 2.00 ("A" = 4) on all work taken in the university (all LSU campuses) and on all work taken.
- At least a "C" in any mass communication course. (In addition, for any mass communication course, a "C" or better is required in prerequisite mass communication courses.)
- A minimum of 120 semester hours of degree credit.
- A minimum of 30 semester hours in courses numbered 3000 or above.
- Degree credit will not be allowed for more than nine semester hours of 1000 level mathematics courses below 1550.
- A minimum of 30 semester hours in residence in the Manship School. The last year of work (30 semester hours) will be taken in residence in this school on the LSU campus.
- A minor in a department other than mass communication. The minor will be defined by the minor department.
- English proficiency- a "C" or better in ENGL 2000 or the equivalent.
- Foreign language a level of proficiency in one foreign language as required in the mass communication curriculum. Students should take a placement test and register at the appropriate level.

Students who have a native fluency in a language other than English may satisfy the foreign language requirement in one of three ways: (a) by completing the prescribed number of hours in the curriculum for the BA degree in a language *other than* English or their native language; (b) by taking a minimum of six hours in courses numbered 3000 or above in their native language; or (c) by taking nine semester hours of English and/or communications studies above the minimum requirements, as stated in the curriculum for the BA degree. (Only three hours may be earned in ENGL 2001 or ENGL 2002 to meet this requirement.)

Students who have a native fluency in a language other than English should consult credit restrictions in that language under the appropriate foreign language department entry in this section of the catalog.

# **Areas of Concentration**

The Bachelor of Arts in Mass Communication (BAMC) degree is conferred on students who complete a concentration in one of the following four areas: digital advertising, journalism, political communication, or public relations. All areas are fully accredited by the Accrediting Council on Education in Journalism and Mass Communication.

The *digital advertising* concentration develops skills in marketing, research, media, and creative planning and execution. Graduates typically become involved in account development and management; media analysis, research, and sales; copywriting; advertising design; and sales promotion.

The *journalism* concentration develops skills in researching, interpreting, organizing, and reporting issues of vital importance to a democratic society across multiple platforms. Students are digitally cross-trained in the theory and practice of journalism for the web, newspapers, magazines, television, and social media. Graduates usually become reporters, editors, and producers.

The *political communication* concentration develops skills in interpreting and communicating information to mass media practitioners and other individuals involved in the political process. Students normally aspire to careers in public or governmental communication, political reporting, and political campaigns.

The *public relations* concentration develops skills and prepares future practitioners in planning and executing the building of relationships and coalitions to advance an enterprise. Graduates typically move to positions in media, governmental, investor, community, and employee relations; special events management; issues management; and public relations counseling.

# 3+3 Pre-Law Program

Beginning Fall 2017, the Manship School of Mass Communication and the Paul M. Hebert Law Center will debut its 3+3 Pre-Law Program for LSU undergraduate students. Undergraduate students who pursue this program would couple all of their major coursework, General Education requirements, and college requirements in their first three years of enrollment, saving their elective coursework for their senior year. During their final year of undergraduate studies and pending acceptance by the LSU Law Center, the student would enroll at the Law Center in the required first year law coursework. The courses successfully completed in the first year of law school transfer back to complete the requirements of the undergraduate bachelor's degree. The student would graduate with their bachelor's degree during the summer following the completion of the first year law coursework. The student would then complete the final two years of the required law curriculum, thereby finishing a four-year bachelor's degree and a three-year law degree in six years rather than the typical seven. In addition, Louisiana students eligible for the TOPS scholarship could use their TOPS award toward their first year of law school enrollment as long as semesters of eligibility remain.

To participate in the 3+3 Pre-Law program, students will choose a concentration of Digital Advertising, Journalism, Public Relations or Political Communication. Students would have to be highly motivated in order to successfully complete their undergraduate major coursework in three years instead of four years. In addition, they would prepare for law school admission (i.e., complete the LSAT, complete the admission process, etc.) one year earlier than the traditional student who plans to enter law school. Participation in the 3+3 Pre-Law Program would not guarantee that the student would be admitted to the LSU Law Center. If the student does not have the required GPAs at the end of the fall or spring semester of the junior year and is not making academic progress, or is not admitted to the LSU Paul M. Hebert Law Center for the senior year, the student's concentration will be converted to the corresponding, regular (non-pre-law) MCOM concentration. The student is expected to complete all degree requirements for the regular concentration, including completion of an university approved minor.

To facilitate a successful transition through the 3+3 Pre-Law Program, interested students must meet with a Mass Communication counselor in the Manship School. For additional requirements

# **General Education Requirements**

General education requirements of the university are included in the curriculum for mass communication. For specific information concerning these requirements, see the "General Education Requirements" section of this catalog.

# Electives

Students may choose any degree credit courses offered by the university consistent with their degree requirements.

# **Pass-Fail Option**

Students may not elect the pass-fail grading option for courses within their major. Only the internship (MC 3998) and independent study (MC 4999) courses are graded on a pass-fail basis.

# **Distance Learning Programs Credit**

A maximum of 12 semester hours of credit in Distance Learning Programs (DLP) credit is acceptable toward meeting degree requirements. Students who wish to have DLP credits accepted by the Manship School must make their registration in DLP courses a matter of record in the office of the dean in the school at the time of such registration.

Students registered in the school may enroll in a maximum of 19 semester hours of combined resident and DLP coursework during a regular semester. They may enroll in a maximum of 12 semester hours of combined resident and DLP work during a summer term. *Students may not be enrolled in DLP coursework the semester they intend to graduate. Depending on the DLP course, a special time limit may be imposed by the dean's office.* 

# **Minor Field Requirements**

Students in other majors may apply to declare a *minor in mass communication* after completion of 30 semester hours of course work and successful completion of MC 2010. Those who have completed 30 semester hours with at least a 3.00 GPA *and* MC 2010 with at least a grade of "B" will automatically be allowed to minor in mass communication. Students who do not meet *both* of these standards will be allowed in the minor on a space available basis.

Students minoring in mass communication must complete 18 semester hours in the Manship School of Mass Communication. Mass communication minors must earn at least a grade of "C" in any mass communication course taken as part of the minor. For any mass communication course, a grade of "C" or better is required in prerequisite mass communication courses.

# **Practical Media Experience**

Mass communication students gain considerable practical experience to supplement classroom instruction. In some courses, students work on news and advertising assignments for *The Reveille*, for the campus radio station, KLSU, and for the campus television station, Tiger TV. Students in advanced reporting courses acquire experience with the Baton Rouge *Advocate* and other local media.

# **Placement Services**

Students in the Manship School may use the services of the university's Career Services. These services include counseling, job-seeking skills workshops, job search handbooks, résumé service, career days, and on-campus recruiting and interviews.

# **Study Abroad**

Students in the Manship School are encouraged to participate in the study abroad programs administered by the Office of Academic Programs Abroad and the International Student Exchange Program. Students who participate in these programs must receive school evaluation of the courses to be taken. Students may not participate in a study abroad program during the semester they intend to graduate. In addition, students must make an appointment with a counselor to ensure that degree credit will be granted upon return to LSU.

# National Student Exchange

LSU cooperates with a number of other universities throughout the U.S. in an exchange program. Students may spend one year (usually the junior year) at another university at little or no more cost than they pay at LSU. Additional information can be obtained from the Office of Academic Programs Abroad.

# **Manship School Student Government Association**

The Manship School Student Government Association serves as a liaison between the Manship School's undergraduate student body and the school's dean. The association is also the official representative to the LSU Student Government.

# **The Honors Program**

An honors program is available to Manship students. Requirements may be obtained from the Honors College, 205 French House. To best serve mass communication honors students, the Manship School offers honors courses, allowing students to take many of their honors hours within the Manship School. Non-honors students may take honors courses in the Manship School when space is available. The following courses are regularly scheduled Mass Communication honors courses: MC 2001, MC 2011, MC 2016, MC 3081, MC 4091.

# **School of Mass Communication**

# Mass Communication, B.A.M.C.

# Areas of Concentration

Students majoring in mass communication must complete at least 39 hours in mass communication courses, including 21 hours of core courses–MC 2000, MC 2010, MC 2015, MC 2035, MC 3080, and MC 4090–and all of the requirements under one of the areas of concentration listed below: digital advertising, journalism, political communication, or public relations.

\* Students choosing French, German, or Spanish as their foreign language will take four to eight hours, depending on placement.

\*\*MC 2000 is a required course and is counted as a general education social science course.

# **Digital Advertising**

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001; 2.5 Cumulative and LSU GPA.

SEMESTER 2: "C" or better in MC 2000; 2.8 Cumulative and LSU GPA.

SEMESTER 3: "B" or better in MC 2010; "C" or better in MC 2035; 3.0 Cumulative and LSU GPA.

SEMESTER 4: "C" or better in ENGL 2000 and MC 2015; Admission to the School.

# Semester 1

**CRITICAL:** "C" or better in ENGL 1001; 2.5 Cumulative and LSU GPA.

- ENGL 1001 English Composition (3)
- MATH 1021 College Algebra (3)
- MC 2000 Introduction to Mass Media (3)
- General Education course Arts (3)
- First Course in Foreign Language Sequence (4)

# **Total Semester Hours: 16**

#### Semester 2

**CRITICAL:** "C" or better in MC 2000; 2.8 Cumulative and LSU GPA.

- HIST 2055 The United States to 1865 (3)
- MC 2010 Media Writing (3)
- MC 2035 Digital Brands (3)
- Second Course in Foreign Language Sequence (4)
- General Education course Natural Sciences (3)<sup>1</sup>

## **Total Semester Hours: 16**

## Semester 3

**CRITICAL:** "B" or better in MC 2010; "C" or better in MC 2035; 3.0 Cumulative and LSU GPA.

- ACCT 2000 Survey of Accounting (3) or
- ACCT 2001 Introductory Financial Accounting (3)
- MC 2015 Visual Communication (3)
- MC 2040 The Advertising Industry in Society (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- Free Elective (3)

# **Total Semester Hours: 15**

#### Semester 4

**CRITICAL:** "C" or better in ENGL 2000 and MC 2015; Admission to the School.

- EXST 2201 Introduction to Statistical Analysis (4)
- MC 3031 Digital Advertising Creative Strategies (3)
- ENGL 2000 English Composition (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- Free Elective (3)

# **Total Semester Hours: 16**

#### Semester 5

- ECON 2030 Economic Principles (3)<sup>2</sup>
- HIST 2057 The United States from 1865 to the Present (3)
- MC 3035 Quantitative Audience Analysis (3)
- MC 3333 Multiculturalism and the Media (3)
- Approved Social Sciences or Humanities course (3)

# Semester 6

- MC 3036 Qualitative Audience Analysis (3)
- MC 3080 Mass Media Law (3)
- MKT 3401 Principles of Marketing (3)
- Approved Social Sciences or Humanities courses (6)

# Total Semester Hours: 15

# Semester 7

- MC 4040 Advertising Problems (3) or
- MC 4031 Advertising Design (3)
- Approved MC Elective (3000-level) (3)
- Free Electives (6)
- MC 4090 Media Ethics and Social Responsibility (3)

# Total Semester Hours: 15

# Semester 8

- MC 4045 Advertising Campaigns (3)
- Approved Electives (9)

# Total Semester Hours: 12

# 120 Total Sem. Hrs.

<sup>1</sup> - If two course sequence is taken in the physical sciences, the additional three hour course must be taken from the life sciences, and vice versa.

<sup>2</sup> - ECONOMICS option: ECON 2000 and ECON 2010 (six hours) may be taken instead of ECON 2030 (three hours).

# Journalism

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001; 2.5

Cumulative and LSU GPA. SEMESTER 2: "C" or better in MC 2000; 2.8 Cumulative

and LSU GPA.

SEMESTER 3: "B" or better in MC 2010; "C" or better in MC 2035; 3.0 Cumulative and LSU GPA.

SEMESTER 4: "C" or better in ENGL 2000 and MC 2015; Admission to the School.

# Semester 1

**CRITICAL:** "C" or better in ENGL 1001; 2.5 Cumulative and LSU GPA.

- ENGL 1001 English Composition (3)
- MC 2000 Introduction to Mass Media (3)
- General Education course Analytical Reasoning (from mathematics) (3)
- General Education course Arts (3)
- First Course in Foreign Language Sequence (4)

# Total Semester Hours: 16

# Semester 2

**CRITICAL:** "C" or better in MC 2000; 2.8 Cumulative and LSU GPA.

- HIST 2055 The United States to 1865 (3)
- MC 2010 Media Writing (3)
- Second Course in Foreign Language Sequence (4)
- General Education course Analytical Reasoning (3)
- General Education course Natural Sciences (3)<sup>1</sup>

# **Total Semester Hours: 16**

# Semester 3

**CRITICAL:** "B" or better in MC 2010; "C" or better in MC 2035; 3.0 Cumulative and LSU GPA.

- ACCT 2000 Survey of Accounting (3) or
- ACCT 2001 Introductory Financial Accounting (3)
- HIST 2057 The United States from 1865 to the Present (3)
- MC 2015 Visual Communication (3)
- MC 2035 Digital Brands (3)
- General Education course Natural Sciences (3)<sup>1</sup>

# Total Semester Hours: 15

# Semester 4

**CRITICAL:** "C" or better in ENGL 2000 and MC 2015; Admission to the School.

- ECON 2030 Economic Principles (3) <sup>2</sup>
- ENGL 2000 English Composition (3)
- MC 2005 Introduction to Journalism (3)

- General Education course Natural Sciences (3)<sup>1</sup>
- Approved Elective (3)

# Semester 5

- MC 3103 Advanced Print Newsgathering (3) or
- MC 3104 Advanced Broadcast Newsgathering (3)
- MC 3333 Multiculturalism and the Media (3)
- Approved Social Sciences or Humanities Courses (6)
- Mass Communications Elective (3)

## **Total Semester Hours: 15**

# Semester 6

- MC 3080 Mass Media Law (3)
- MC 3005 In-depth Reporting (3)
- Approved Social Sciences or Humanities course (3)
- Free Elective (6)

# Total Semester Hours: 15

# Semester 7

• MC 4090 Media Ethics and Social Responsibility (3)

Journalism Elective (choose one from the following):

- MC 4280 Television News Producing (3)
- MC 4260 Long-Format Video Production (3)
- MC 4250 Public Affairs Reporting (3)
- MC 3002 Feature Writing (3)
- Approved Electives (9)

# Total Semester Hours: 15

# Semester 8

- MC 4500 Advanced Journalism (3) <sup>3</sup>
- MC Elective (3)
- Approved Electives (7)

# Total Semester Hours: 13

# 120 Total Sem. Hrs.

<sup>1</sup> - If two course sequence is taken in the physical sciences, the additional three hour course must be from the life sciences, and vice versa.

<sup>2</sup> - ECONOMICS option: ECON 2000 and ECON 2010(6 hours) may be taken instead of ECON 2030 (3 hours).

<sup>3</sup> - In order to take MC 4500 (Adv Journalism) in Sem. 8, you MUST TAKE MC 3005 and MC 3103/MC 3104 as prerequisites.

# Political Communication

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001; 2.5 Cumulative and LSU GPA. SEMESTER 2: "C" or better in MC 2000; 2.8 Cumulative and LSU GPA. SEMESTER 3: "B" or better in MC 2010; "C" or better in MC 2035; 3.0 Cumulative and LSU GPA. SEMESTER 4: "C" or better in ENGL 2000 and MC 2015; Admission to the School.

#### Semester 1

**CRITICAL:** "C" or better in ENGL 1001; 2.5 Cumulative and LSU GPA.

- ENGL 1001 English Composition (3)
- MATH 1021 College Algebra (3) or
- MATH 1029 Introduction to Contemporary Mathematics (3)
- MC 2000 Introduction to Mass Media (3)
- General Education course Arts (3)
- First Course in Foreign Language Sequence (4)

# **Total Semester Hours: 16**

# Semester 2

**CRITICAL:** "C" or better in MC 2000; 2.8 Cumulative and LSU GPA.

- HIST 2055 The United States to 1865 (3)
- MC 2010 Media Writing (3)
- MC 2035 Digital Brands (3)
- Second Course in Foreign Language Sequence (4)
- General Education course Natural Sciences (3)<sup>1</sup>

# Semester 3

**CRITICAL:** "B" or better in MC 2010; "C" or better in MC 2035; 3.0 Cumulative and LSU GPA.

- HIST 2057 The United States from 1865 to the Present (3)
- MC 2015 Visual Communication (3)
- General Education course Analytical Reasoning (3)
- Free Elective (3)
- General Education course Natural Sciences (3)<sup>1</sup>

# Total Semester Hours: 15

# Semester 4

**CRITICAL:** "C" or better in ENGL 2000 and MC 2015; Admission to the School.

- ECON 2030 Economic Principles (3)<sup>2</sup>
- ENGL 2000 English Composition (3)
- EXST 2201 Introduction to Statistical Analysis (4)
- MC 3504 Introduction to Political Communication (3)
- Free Elective (3)

# Total Semester Hours: 16

# Semester 5

- POLI 2051 American Government (3) or
- POLI 2053 Introduction to Comparative Politics (3) or
- POLI 2057 Introduction to International Politics (3) or
- 4000-level POLI course (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- MC 3505 Media and Policy Processes (3)
- MC 3333 Multiculturalism and the Media (3)
- MC 3080 Mass Media Law (3)

# **Total Semester Hours: 15**

# Semester 6

- MC 3510 Political Communication Research (3)
- Approved Social Sciences of Humanities courses
   (6)

- Free Elective (3)
- Mass Communications Elective (3)

# Total Semester Hours: 15

# Semester 7

- MC 3520 Political Communication Writing (3)
- MC 4090 Media Ethics and Social Responsibility (3)
- Approved Social Sciences or Humanities courses (3)
- Free Electives (6)

# Total Semester Hours: 15

# Semester 8

- MC 4520 Advanced Seminar in Political Communication (3)
- MC Elective (3)
- Approved Electives (6)

# Total Semester Hours: 12

# 120 Total Sem. Hrs.

To ensure your ability to graduate in 8 semesters, you are encouraged to see a Manship School counselor each semester to review your schedule.

<sup>1</sup> - If two course sequence is taken in the physical science, the additional three hour course must be from the life sciences, and vice versa.

<sup>2</sup> - ECONOMICS option: ECON 2000 and ECON 2010 (6 hours) may be taken instead of ECON 2030 (3 hours).

# **Public Relations**

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001; 2.5 Cumulative and LSU GPA. SEMESTER 2: "C" or better in MC 2000; 2.8 Cumulative and LSU GPA. SEMESTER 3: "B" or better in MC 2010; "C" or better in MC 2035; 3.0 Cumulative and LSU GPA. SEMESTER 4: "C" or better in ENGL 2000 and MC 2015; Admission to the School.

# Semester 1

**CRITICAL:** "C" or better in ENGL 1001; 2.5 Cumulative and LSU GPA.

- ENGL 1001 English Composition (3)
- MC 2000 Introduction to Mass Media (3)
- General Education course Analytical Reasoning (from mathematics) (3)
- General Education course Arts (3)
- First Course in Foreign Language Sequence (4)

## **Total Semester Hours: 16**

#### Semester 2

**CRITICAL:** "C" or better in MC 2000; 2.8 Cumulative and LSU GPA.

- HIST 2055 The United States to 1865 (3)
- HIST 1003 Western Civilization Since 1500 (3) or
- MC 2010 Media Writing (3)
- MC 2035 Digital Brands (3)
- Second Course in Foreign Language Sequence (4)
- General Education course Natural Sciences (3)<sup>1</sup>

## Total Semester Hours: 16

#### Semester 3

**CRITICAL:** "B" or better in MC 2010; "C" or better in MC 2035; 3.0 Cumulative and LSU GPA.

- ACCT 2000 Survey of Accounting (3) or
- ACCT 2001 Introductory Financial Accounting (3)
- HIST 2057 The United States from 1865 to the Present (3)
- MC 2015 Visual Communication (3)
- MC 3010 Introduction to Public Relations (3)
- General Education course Natural Sciences (3)<sup>1</sup>

## **Total Semester Hours: 15**

## Semester 4

- **CRITICAL:** "C" or better in ENGL 2000 and MC 2015; Admission to the School.
- ENGL 2000 English Composition (3)
- MC 3001 Public Relations Writing and Applications (3)

- General Education Course Analytical Reasoning (3)
- General Education Course Natural Sciences (3)<sup>1</sup>
- Free Elective (3)

## **Total Semester Hours: 15**

## Semester 5

- ECON 2030 Economic Principles (3) <sup>2</sup>
- MC 3333 Multiculturalism and the Media (3)
- MGT 3200 Principles of Management (3)
- MC 4020 Public Relations Research (3)
- Approved Social Science or Humanities course (3)

# **Total Semester Hours: 15**

## Semester 6

- MC 3080 Mass Media Law (3)
- MKT 3401 Principles of Marketing (3)
- MC Elective (3)
- Approved Social Sciences or Humanities courses
   (6)

# **Total Semester Hours: 15**

#### Semester 7

- MC 4002 Strategies for Public Relations and Social Media (3)
- MC 4090 Media Ethics and Social Responsibility (3)
- Free Electives (6)
- Approved MC Elective (3000-level) (3)

# **Total Semester Hours: 15**

#### Semester 8

- MC 4005 Public Relations Campaigns (3)
- Approved Electives (10)

# Total Semester Hours: 13

# 120 Total Sem. Hrs.

To ensure your ability to graduate in 8 semesters, you are encouraged to see a Manship School counselor each semester to review your schedule. <sup>1</sup> - If two course sequence is taken in the physical science, the additional three hour course must be from the life sciences, and vice versa.

<sup>2</sup> - ECONOMICS option: ECON 2000 and ECON 2010 (6 hours) may be taken instead of ECON 2030 (3 hours).

# Pre-Law Digital Advertising 3+3

SEMESTER 1: "C" or better in ENGL 1001; 2.8 Cumulative and LSU GPA.

SEMESTER 2: "B" or better in MC 2010; 3.0 Cumulative and LSU GPA.

SEMESTER 3: "C" or better in MC 2040, "C" or better in MC 2035; 3.2 Cumulative and LSU GPA; Admission to the School.

SEMESTER 4: "C" or better in ENGL 2000; 3.4 Cumulative and LSU GPA.

# Semester 1

**CRITICAL:** "C" or better in ENGL 1001; 2.8 Cumulative and LSU GPA.

- ENGL 1001 English Composition (3)
- MATH 1021 College Algebra (3)
- MC 2000 Introduction to Mass Media (3)
- MC 2035 Digital Brands (3)
- First Course in Foreign Language Sequence (4)

## **Total Semester Hours: 16**

#### Semester 2

**CRITICAL:** "B" or better in MC 2010; 3.0 Cumulative and LSU GPA.

- ACCT 2000 Survey of Accounting (3) or
- ACCT 2001 Introductory Financial Accounting (3)
- MC 2010 Media Writing (3)
- MC 2015 Visual Communication (3)
- Second Course in Foreign Language Sequence (4)
- General Education course Natural Sciences (3)<sup>1</sup>

# Total Semester Hours: 16

# Semester 3

**CRITICAL:** "C" or better in MC 2040, C" or better in MC 2035; 3.2 Cumulative and LSU GPA; Admission to the School.

- EXST 2201 Introduction to Statistical Analysis (4)
- HIST 2055 The United States to 1865 (3) or
- HIST 2057 The United States from 1865 to the Present (3)
- MC 3031 Digital Advertising Creative Strategies
   (3)
- MC 2040 The Advertising Industry in Society (3)
- General Education course Natural Sciences (3)<sup>1</sup>

## **Total Semester Hours: 16**

#### Semester 4

**CRITICAL:** "C" or better in ENGL 2000; 3.4 Cumulative and LSU GPA.

- ENGL 2000 English Composition (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- MC 3035 Quantitative Audience Analysis (3)
- MC 3036 Qualitative Audience Analysis (3)
- MC 3080 Mass Media Law (3)

#### **Total Semester Hours: 15**

#### Semester 5

- ECON 2030 Economic Principles (3) <sup>2</sup>
- MC 4040 Advertising Problems (3)
- MC 4090 Media Ethics and Social Responsibility (3)
- MC 3333 Multiculturalism and the Media (3)
- MKT 3401 Principles of Marketing (3)

## Total Semester Hours: 15

## Semester 6

- MC 4045 Advertising Campaigns (3)
- MC Elective (3)
- HIST 2055 The United States to 1865 (3) or
- HIST 2057 The United States from 1865 to the Present (3)
- General Education course Arts (3)

#### **Total Semester Hours: 12**

# Semester 7

• Approved Electives (15)

# **Total Semester Hours: 15**

# Semester 8

• Approved Electives (15)

# Total Semester Hours: 15

# 120 Total Sem Hrs.

<sup>1</sup> - If two course natural science sequence is taken in the life sciences, the additional three hour natural science course must be from the physical sciences, and vice versa.

<sup>2</sup> - ECONOMICS option: ECON 2000 and ECON 2010 (6 hours) may be taken instead of ECON 2030 (3 hours).

# Pre-Law Journalism 3+3

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001; 2.8 Cumulative and LSU GPA.

SEMESTER 2: "B" or better in MC 2010; 3.0 Cumulative and LSU GPA.

SEMESTER 3: "C" or better in MC 2005; 3.2 Cumulative and LSU GPA; Admission to the School. SEMESTER 4: "C" or better in ENGL 2000 and MC

3103 or MC 3104; 3.4 Cumulative and LSU GPA.

# Semester 1

**CRITICAL:** "C" or better in ENGL 1001; 2.8 Cumulative and LSU GPA.

- ENGL 1001 English Composition (3)
- MC 2000 Introduction to Mass Media (3)
- MC 2035 Digital Brands (3)
- General Education course Analytical Reasoning (from mathematics) (3)
- First Course in Foreign Language Sequence (4)

# **Total Semester Hours: 16**

#### Semester 2

**CRITICAL:** "B" or better in MC 2010; 3.0 Cumulative and LSU GPA.

- MC 2010 Media Writing (3)
- MC 2015 Visual Communication (3)

- Second Course in Foreign Language Sequence (4)
- General Education course Analytical Reasoning
   (3)
- General Education course Natural Sciences (3)<sup>1</sup>

# **Total Semester Hours: 16**

#### Semester 3

**CRITICAL:** "C" or better in MC 2005; 3.2 Cumulative and LSU GPA; Admission to the School.

- ACCT 2000 Survey of Accounting (3) or
- ACCT 2001 Introductory Financial Accounting (3)
- MC 2005 Introduction to Journalism (3)
- MC 3333 Multiculturalism and the Media (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- Mass Communication Elective (3)

# Total Semester Hours: 15

# Semester 4

**CRITICAL:** "C" or better in ENGL 2000 and MC 3103/MC 3104; 3.4 Cumulative and LSU GPA.

- MC 3103 Advanced Print Newsgathering (3) or
- MC 3104 Advanced Broadcast Newsgathering
   (3)
- MC 3080 Mass Media Law (3)
- ENGL 2000 English Composition (3)
- MC Elective (3)
- General Education course Natural Sciences (3)<sup>1</sup>

# **Total Semester Hours: 15**

# Semester 5

- ECON 2030 Economic Principles (3) <sup>2</sup>
- MC 3005 In-depth Reporting (3)
- MC 4090 Media Ethics and Social Responsibility (3)
- HIST 2055 The United States to 1865 (3) or
- HIST 2057 The United States from 1865 to the Present (3)

Journalism Elective chosen from:

- MC 3002 Feature Writing (3)
- MC 4250 Public Affairs Reporting (3)
- MC 4260 Long-Format Video Production (3)
- MC 4280 Television News Producing (3)

# Semester 6

- Free Electives (3)
- General Education course Arts (3)
- HIST 2055 The United States to 1865 (3) or
- HIST 2057 The United States from 1865 to the Present (3)
- MC 4500 Advanced Journalism (3)

# Total Semester Hours: 12

## Semester 7

• Approved Electives (16)

# **Total Semester Hours: 16**

# Semester 8

• Approved Electives (15)

# Total Semester Hours: 15

# 120 Total Sem Hrs.

<sup>1</sup> - If two course natural science sequence is taken in the life sciences, the additional three hour natural science course must be from the physical sciences, and vice versa.

<sup>2</sup> - ECONOMICS option: ECON 2000 and ECON 2010 (6 hours) may be taken instead of ECON 2030 (3 hours).

# Pre-Law Political Communication 3+3

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001; 2.8 Cumulative and LSU GPA. SEMESTER 2: "B" or better in MC 2010; 3.0 Cumulative and LSU GPA. SEMESTER 3: "C" or better in MC 3504; 3.2 Cumulative and LSU GPA; Admission to the School. SEMESTER 4: "C" or better in ENGL 2000, MC 3505; 3.4 Cumulative and LSU GPA.

#### Semester 1

**CRITICAL:** "C" or better in ENGL 1001; 2.8 Cumulative and LSU GPA.

- ENGL 1001 English Composition (3)
- MATH 1021 College Algebra (3)
- MC 2000 Introduction to Mass Media (3)
- MC 2035 Digital Brands (3)
- First Course in Foreign Language Sequence (4)

# **Total Semester Hours: 16**

#### Semester 2

**CRITICAL:** "B" or better in MC 2010; 3.0 Cumulative and LSU GPA.

- MC 2010 Media Writing (3)
- MC 2015 Visual Communication (3)
- Second Course in Foreign Language Sequence (4)
- General Education course Natural Sciences (3)<sup>1</sup>
- Approved POLI Course (3)

# **Total Semester Hours: 16**

## Semester 3

**CRITICAL:** "C" or better in MC 3504; 3.2 Cumulative and LSU GPA; Admission to the School.

- EXST 2201 Introduction to Statistical Analysis (4)
- General Education course Natural Sciences (3)<sup>1</sup>
- HIST 2055 The United States to 1865 (3) or
- HIST 2057 The United States from 1865 to the Present (3)
- MC 3333 Multiculturalism and the Media (3)
- MC 3504 Introduction to Political Communication (3)

#### **Total Semester Hours: 16**

#### Semester 4

**CRITICAL:** "C" or better in ENGL 2000, MC 3505; 3.4 Cumulative and LSU GPA.

- MC 3505 Media and Policy Processes (3)
- MC 3080 Mass Media Law (3)
- MC 3510 Political Communication Research (3)
- ENGL 2000 English Composition (3)
- General Education course Analytical Reasoning (3)

#### Semester 5

- ECON 2030 Economic Principles (3)<sup>2</sup>
- General Education course Natural Sciences (3)<sup>1</sup>
- MC 3520 Political Communication Writing (3)
- MC 4090 Media Ethics and Social Responsibility (3)
- MC Elective (3)

## **Total Semester Hours: 15**

## Semester 6

- MC 4520 Advanced Seminar in Political Communication (3)
- MC Elective (3)
- HIST 2055 The United States to 1865 (3) or
- HIST 2057 The United States from 1865 to the Present (3)
- General Education course Arts (3)

#### **Total Semester Hours: 12**

# Semester 7

• Approved Electives (15)

#### Total Semester Hours: 15

#### Semester 8

• Approved Electives (15)

# Total Semester Hours: 15

# 120 Total Sem Hrs.

To ensure your ability to graduate in eight semesters, you are encouraged to see a Manship School counselor each semester to review your schedule. <sup>1</sup> - If two course natural science sequence is taken in the life sciences, the additional three hour natural science course must be from the physical sciences, and vice versa.

<sup>2</sup> - ECONOMICS option: ECON 2000 and ECON 2010 (6 hours) may be taken instead of ECON 2030 (3 hours).

# Pre-Law Public Relations 3+3

SEMESTER 1: "C" or better in ENGL 1001; 2.8 Cumulative and LSU GPA. SEMESTER 2: "B" or better in MC 2010; 3.0 Cumulative and LSU GPA. SEMESTER 3: "C" or better in MC 3010; 3.2 Cumulative and LSU GPA; Admission to the School. SEMESTER 4: "C" or better in ENGL 2000, MC 3001; 3.4 Cumulative and LSU GPA.

#### Semester 1

**CRITICAL:** "C" or better in ENGL 2000; 2.8 Cumulative and LSU GPA.

- ENGL 1001 English Composition (3)
- MC 2000 Introduction to Mass Media (3)
- MC 2035 Digital Brands (3)
- General Education course Analytical Reasoning (from mathematics) (3)
- First Course in Foreign Language Sequence (4)

#### **Total Semester Hours: 16**

#### Semester 2

**CRITICAL:** "B" or better in MC 2010; 3.0 Cumulative and LSU GPA.

- MC 2010 Media Writing (3)
- MC 2015 Visual Communication (3)
- Second Course in Foreign Language Sequence (4)
- General Education course Analytical Reasoning
   (3)
- General Education course Natural Sciences (3)<sup>1</sup>

# **Total Semester Hours: 16**

#### Semester 3

**CRITICAL:** "C" or better in MC 3010; 3.2 Cumulative and LSU GPA; Admission to the School.

• ACCT 2000 Survey of Accounting (3) or

- ACCT 2001 Introductory Financial Accounting (3)
- HIST 2055 The United States to 1865 (3) or
- HIST 2057 The United States from 1865 to the Present (3)
- MC 3010 Introduction to Public Relations (3)
- MC 3333 Multiculturalism and the Media (3)
- General Education course Natural Sciences (3)<sup>1</sup>

# Semester 4

- **CRITICAL:** "C" or better in ENGL 2000, MC 3001; 3.4 Cumulative and LSU GPA.
- ENGL 2000 English Composition (3)
- MC 3001 Public Relations Writing and Applications (3)
- MC 3080 Mass Media Law (3)
- MC 4002 Strategies for Public Relations and Social Media (3)
- Free Elective (3)
- General Education course Natural Sciences (3)<sup>1</sup>

# **Total Semester Hours: 15**

# Semester 5

- ECON 2030 Economic Principles (3) <sup>2</sup>
- MC 4020 Public Relations Research (3)
- MC 4090 Media Ethics and Social Responsibility (3)
- MGT 3200 Principles of Management (3)
- MC Elective (3)

# Total Semester Hours: 15

# Semester 6

- MKT 3401 Principles of Marketing (3)
- MC 4005 Public Relations Campaigns (3)
- HIST 2055 The United States to 1865 (3) or
- HIST 2057 The United States from 1865 to the Present (3)
- General Education course Arts (3)
- MC Elective (3)

# Total Semester Hours: 15

# Semester 7

• Approved Electives (14)

# **Total Semester Hours: 14**

# Semester 8

• Approved Electives (14)

**Total Semester Hours: 14** 

# 120 Total Sem. Hrs.

<sup>1</sup> - If two course natural science sequence is taken in the life sciences, the additional three hour natural science course must be from the physical sciences, and vice versa.

<sup>2</sup> - ECONOMICS option: ECON 2000 and ECON 2010 (6 hours) may be taken instead of ECON 2030 (3 hours).

## **Mass Communication Minor**

*General Minor* • Students desiring to pursue a *general minor in mass communication* must complete the following five core courses: MC 2000, MC 2010, MC 2035, MC 3080, MC 4090. Students will also choose one additional course from the following: MC 3010, MC 3333, MC 3504, or MC 4095.

# **Political Communication Minor**

To graduate with a minor in *political communication*, students must complete 18 semester hours from the following: MC 2010, MC 3504, MC 3505 and MC 4520; three hours from one additional political communication course; and three hours of a POLI 4000 level course.

## Visual Communication for Students in Design Minor

The Manship School offers an undergraduate minor in visual communication limited to students in the College of Art and Design. Students may choose one of two options: *journalism* or *advertising*. To graduate with a *minor in visual communication*, students must complete 18 hours in mass communication: MC 2010, MC 2035, MC 4090, and 9 hours from one of the following sequence of courses: *journalism*: MC 2005, MC 3005, and either MC 3103 or MC 3104; or *advertising*: MC 2040, MC 3031, and MC 4045.

# **College of Music & Dramatic Arts**

TODD QUEEN Dean; Penniman Family Professor of Music		
KRISTIN SOSNOWSKY Executive Associate Dean; Associate Professor of Theatre	JAMES BYO Director of the School of Music; Carl Prince Matthies Memorial Professor of Music Education	
JOSEPH SKILLEN Associate Dean for Graduate Studies; Galante Endowed Professor of Tuba	ALLIE PREST Assistant Dean for Undergraduate Studies	
NICK ERICKSON Head of MFA Acting/Physical Theatre; Associate Professor of Theatre	JOHN FLETCHER Co-Head of Theatre PhD Program; Billy J. Harbin Professor of Theatre	
JAMES L. MURPHY Head of MFA Technology/Design Programs; Associate Professor of Theatre	SHANNON WALSH Co-Head of Theatre PhD Program; Assistant Professor of Theatre	
191 Music & Dramatic Arts Building TELEPHONE 225-578-9959 FAX 225-578-9975		

# Departments, Schools, and Curricula

School of Music

School of Theatre

The College of Music & Dramatic Arts is comprised of the School of Theatre and the School of Music. The School of Theatre offers theatrical productions under the joint auspices of LSU Theatre and Swine Palace, the latter being a professional equity theatre. Divisions in the School of Music are: Academic Studies, Bands, Ensembles and Conducting, Instrumental, Keyboard, Music Education, and Voice/Opera. Areas of concentration in the School of Theatre are: Performance, Physical Theatre, Design/Technology, Film and Television, Theatre Studies, and Arts Administration. Both the School of Theatre and the School of Music offer comprehensive degree programs from the baccalaureate through the doctorate.

The primary goals of the college are:

- to offer advanced training in the performing arts to students who are committed to developing their innate talents;
- to make the performing arts a cultural asset in their lives and the lives of others;
- to prepare graduates for leadership roles and careers in the performing arts.

The School of Music and the School of Theatre at LSU have long been recognized regionally and nationally for the quality of their performance and research programs. Their faculties have distinguished themselves as specialists in their fields and many currently lead their respective discipline's professional associations. Student groups have appeared as invited featured performers at the Kennedy Center in Washington, D.C., Notre Dame Cathedral (France), Berlin Cathedral (Germany), and at national and regional conferences and conventions.

The college provides numerous public performances and opportunities for artistic learning and cultural enrichment throughout the year for students and the community at large.

The following undergraduate programs are offered by the College of Music & Dramatic Arts:

- Music (BA)
- Music (BM)
- Music Education (BME)
- Theatre (BA)

# **Admission Requirements**

Within the framework of university regulations, students may be admitted to the college according to the following policies:

- Entering Freshmen who meet the university admissions standards and have a declared major within the College of Music & Dramatic Arts will be admitted to the college during Freshmen Orientation. Prospective music majors must successfully audition before they may be admitted to the college or register for music major courses.
- Students may be admitted from University College to the college provided that they have credit for the freshman-year courses for the curriculum they plan to follow and with an audition for the appropriate faculty (required for music majors only).
- *Transfer students* from University College or other divisions of LSU, or from other colleges and universities who have passed the required audition for admission (music majors only) may be admitted to the college. Students transferring from another institution must meet university transfer admission requirements. Students must have earned a cumulative grade point average of 2.00 or better to be admitted unconditionally to the Bachelor of Music Education degree program.

All transfer students in music must take an advisory examination in theory. This includes ear-training, keyboard work, harmonization, and analysis. The results of the examination will be used to aid in planning a practical schedule of courses consistent with the student's training and ability. The examinations are given at stated times during registration in each semester or summer term. Students in music degree programs also must audition. See the "School of Music" information in this chapter.

# **Distance Learning Programs Credit**

Up to one-fourth of the number of hours required for the baccalaureate degree may be taken in Distance Learning Programs (DLP) courses. Acceptance of such work is contingent upon its applicability to the student's curriculum; therefore, students should obtain approval from the dean of the College of Music & Dramatic Arts before registering for DLP courses. DLP study in music theory and work in applied music completed through other universities or colleges must be verified by examination and auditions.

## **Requirements for a Second Bachelor's Degree**

A person holding a baccalaureate degree who wishes to obtain a second baccalaureate degree through this college must satisfactorily complete all requirements in the curriculum selected. In addition, general university requirements for a second bachelor's degree must be met.

## **Graduate Programs**

The Graduate School offers the following degrees in the field of music: Master of Music, Doctor of Musical Arts, and Doctor of Philosophy. The following graduate degree programs are available in theatre: Master of Fine Arts (acting; technology/design) and the Doctor of Philosophy. The requirements for these degrees are given in "The Graduate School" section.

## **Minor Field Requirements (Optional)**

Students in the College of Music & Dramatic Arts may earn a *minor in a field outside of their current major* under the following conditions:

- Students must earn at least 15 semester hours in the minor field, of which at least six semester hours must be taken on this campus and at the 3000 and/or the 4000 level.
- Each course used in the minor must be passed with a grade of "C" or better.
- Courses used for the minor may not be taken on a pass-fail basis.

Minor fields may be chosen from any major field currently offered in which the specific requirements for a minor have been established and approved by the Faculty Senate Courses and Curricula Committee and the Office of Academic Affairs.

The department offering the minor may impose additional requirements.

## **Undergraduate Career Plan**

Students are encouraged to enrich their studies and prepare for their careers by using the Four Year Career Plan in addition to their academic course of study.

## **School of Music**

OFFICE102 School of Music BuildingTELEPHONE225-578-3261FAX225-578-2562WEBSITEwww.lsu.edu/cmda/musicCURRICULA:

- Music Education, B.M.E.
- Music, B.A.
- Music, B.M.

The School of Music offers several curricula and special courses of vocational as well as avocational nature. These curricula are outlined below. The vocational programs prepare students to be performers, composers, scholars, or teachers and culminate with the undergraduate degree, Bachelor of Music. The Bachelor of Music Education degree is designed to train students to teach vocal and instrumental music in the public schools where state certification is required. Persons wishing a broader variety of subjects in addition to a basic foundation in music may follow the curriculum leading to the Bachelor of Arts in Music.

Avocational programs are offered through courses in music appreciation, music history, music fundamentals, and jazz history. Participation in the various performing organizations is also available, based upon audition. Private lessons are offered to students who qualify through audition, based on the availability of teacher time.

The curriculum in music education meets requirements of the Louisiana State Department of Education for accrediting various types of music instructors in the Louisiana public schools and is approved by the National Council for Accreditation of Teacher Education and the National Association of Schools of Music. The School of Music is an accredited institutional member of the National Association of Schools of Music.

Secondary and primary applied courses, MUS 2130-MUS 2154 and MUS 3130-MUS 3154, are offered for 2 or 3 credits. Students who elect two credits will receive 30 minutes of individual instruction per week; students who elect three credits will receive 60 minutes of individual instruction per week. Graduate applied courses are offered for 2-6 credits. All students registering for MUS 2130-MUS 2154 and MUS 3130-MUS 3154 may be required to participate concurrently in one of the following major performing organizations: MUS 4232, MUS 4233, MUS 4234, MUS 4235, MUS 4236, MUS 4250, MUS 4251, MUS 4252, MUS 4253, MUS 4254 or MUS 4261.

All applied music and ensemble courses may be repeated for credit every semester.

Secondary applied music courses are designed for students who are not qualified to either major or minor in the specific instrument designated by the course number. Primary Applied Music Courses are for students whose declared major or minor is the specific instrument designated by the course number.

# Auditions

*For Admission* • An audition in the major performance medium (piano, voice, etc.) is required of all students wishing to pursue curricula in the School of Music. The audition can be on campus or by tape recording. Contact the School of Music for details.

**For Applied Music Courses •** All applied music courses are open to both majors and nonmajors by audition only. New students or reentry students who have been out of school for more than one year and plan to continue in a performance curriculum should contact the School of Music to arrange an audition during the semester prior to the one in which the student wishes to be enrolled. All students must complete an audition before registering for applied music courses.

**For Ensemble Courses** • All music ensemble courses are also open to both majors and nonmajors by audition only, with the exception of MUS 4230, MUS 4232, and MUS 4233 which require no audition. Students should contact the director of the ensemble in which they wish to participate to arrange an audition. Auditions may also be arranged during late registration at the beginning of each semester. These courses are open to all students, including freshmen and sophomores.

# **General Requirements**

Undergraduate students should consult the *School of Music Undergraduate Student Handbook* for detailed policies and procedures related to their undergraduate career in the LSU School of Music.

All students enrolled for private lessons in performance, regardless of their college or school (with the exception of graduate keyboard and graduate voice students) may, at the discretion of the director of the School of Music, in consultation with the conductor of the organization concerned and the applied teacher, be required to participate in one of the major performing organizations for laboratory experience. Placement in ensembles is at the discretion of the ensemble director and applied faculty member.

Participation in major ensembles appropriate to the major instrument is required of all music majors. (See list of ensembles under Music Courses). MUS 4253 may count as a major ensemble as follows:

(1) BA in Music with a concentration in Jazz, all required ensemble hours; (2) BA in Music with concentration other than Jazz, two of the four required ensemble hours; (3) BM with all concentrations, two of the eight required ensemble hours; and (4) BME with instrumental concentration, two of the seven required ensemble hours.

Students are not charged for private lessons or for use of school-owned instruments, equipment, or practice rooms, although a maintenance/repair fee may be charged. A fee of \$50 per year is charged for the use of a locker; a nonrefundable fee of \$75 is charged when a recital is scheduled.

An honors curriculum is available within the Bachelor of Music curriculum. Students should contact the Honors College and the School of Music for details.

At the completion of the fourth semester of study, all majors in music and music education will be required to take a performance examination, which will determine continued study as a major at the junior level. Composition majors will be required to submit written examples of their work to the appropriate undergraduate committee. Consult the guidelines, standards, and procedures developed by each individual area.

# **Bachelor of Music Degree Requirements**

- Completion of a minimum of 120 semester hours with a GPA of 2.00 or better on all work attempted
- A grade of "C" or better in all required music courses
- Participation in major ensembles (see "General Requirements")

# **Bachelor of Music Education**

In view of its responsibility to the teaching profession, the *School of Music reserves the right to review at any time a student's suitability to continue in the teacher education program in music education*. Faculty members are encouraged to monitor the growth of prospective teachers enrolled in the program.

To qualify for and remain in the Teacher Education Program at the conclusion of the sophomore year, students must fulfill requirements of the sophomore upper-level examinations in music education. Each student must:

- have a minimum cumulative and LSU grade point average of 2.50 for entry into and continuation in upper (3000/4000) level education courses, including student teaching;
- have passing scores on the Praxis Core Area Skills for Educators Exams or minimum ACT composite score of 22 or minimum SAT composite score of 1030;
- pass the applied music upper-level examinations for music education majors;
- pass a piano proficiency examination and piano majors must satisfy vocal proficiency requirements;
- have favorable evaluations of ensemble work by the appropriate ensemble directors; and

• have a favorable recommendation by the music education faculty on the basis of an interview with that faculty. Students will not be allowed to take EDCI 3136, MUED 3170, MUED 3171, MUED 3630, or PSYC 2078 until they have been accepted into the teacher education program in music education by successfully completing the fourth semester performance examination. All students are expected to earn a grade of "C" or better in one of the following or have the equivalent transfer credit: ENGL 2000 or ENGL 1005 (international students). Students who fail to do so must repeat the course.

Students enrolled in the music education program who are on scholastic probation will be dropped from the program for failure to earn a minimum 2.00 GPA during any semester. Students enrolled in the music education program who fail to earn a minimum 2.00 GPA for two consecutive semesters will be dropped from the program.

# **Student Teaching Application for Student Teaching**

Application for student teaching must be made to the music education faculty no later than one week following the last day for adding courses in the semester *prior* to student teaching.

## **Requirements for Student Teaching**

Student teaching is offered each fall and spring semester, scheduled as an all-day, Monday through Friday experience. Student teachers must also plan for 3:30-4:30 p.m. meetings on Monday. The student teaching experience must include a minimum of 270 clock hours, 180 of which must be actual teaching.

No student may schedule more than 15 semester hours of work during the semester in which student teaching is done. Any student who is within 14 hours of graduation and is not qualified for supervised student teaching will be dropped from the program.

To be permitted to do student teaching, the student must have:

- Attained senior standing in the School of Music, with a cumulative average of 2.50 on all work attempted and on all work at LSU, with no grade lower than "C" in all music courses and professional education courses, including psychology, regardless of the institution(s) attended
- Completed all courses or all except one general education course
- Demonstrated proficiency in written expression
- Taken the required PRAXIS II exams no later than the first test date during the student teaching semester

# **Degree Requirements**

Degrees in the music education programs in this college are conferred when the following conditions have been met:

- Satisfactory completion of an approved program of study as determined by all of the following: faculty of the School of Music, the university, and the Louisiana Board of Elementary and Secondary Education;
- Minimum cumulative and LSU GPA of 2.50 on all work completed;
- Passing scores on all required parts of the Praxis II Series
- Grade of "C" or higher in coursework as specified by the Louisiana Board of Elementary and Secondary Education;
- Completion of the final 30 semester hours of work done in residence on the LSU campus as a registrant in the School of Music; and
- Proficiency in written expression.

# **Distance Learning Programs Credits**

Up to one-fourth of the number of hours required for the baccalaureate degree may be taken through Continuing Education by Distance Learning Programs (DLP) study, registration as an extension student, or both. Students may not schedule DLP or extramural work during the last 30 hours of their programs. Time limits for DLP study will be imposed to ensure that these courses cause as little conflict as possible with regular classes.

# **Bachelor of Arts Degree Requirements**

Offered by the College of Music and Dramatic Arts since 1998-99, the Bachelor of Arts in Music degree is a viable alternative for those students who prefer a more flexible and less intensive music curriculum than is possible under the Bachelor of Music Education or Bachelor of Music curricula. The BA in Music degree could prepare students for careers in arts administration, the music business industry, for further study at the graduate level in music history or music theory, or other areas. The BA in Music with no concentration requires a minor in an area other than music. The BA in Music with a concentration in EM/DM requires completion of the Avatar minor. A grade of "C" or better is required in all music courses.

## **Music Minor**

To graduate with a *minor in music*, students must complete:

- Audition or acceptance into an academic field of study.
- MUS 1705
- MUS 1799
- 11 hours of applied lessons or academic courses in the School of Music.
- At least 3 hours of music electives should be at 3000 and/or 4000 level; performance minors should register for 3000-level or higher applied lessons.
- Each music minor course passed with a grade of "C" or better.

## **Music Education, B.M.E.**

## Areas of Concentration

All students in the BME program shall participate in band (MUS 4250, MUS 4251, MUS 4252, MUS 4253, MUS 4254), orchestra (MUS 4261), or chorus (MUS 4232, MUS 4233, MUS 4234, or MUS 4236) for seven semesters. Students with an instrumental emphasis may count MUS 4253 Jazz Band for a maximum of two of the seven required ensemble hours. Large ensemble assignments are made at the discretion of the counselor and the ensemble conductors. Any request for adjustment of the rules pertaining to performance in large ensembles must be submitted to a reviewing committee.

Students wishing to be certified in more than one area (band and orchestra, band and vocal, etc.) should see their faculty advisors for certification requirements and proficiencies. Such programs normally require a minimum of five years to complete.

Piano proficiency at the level of MUS 1133 or equivalent is required.

## Instrumental

## **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better MUS 1705, primary applied music course; 2.25 Cumulative GPA. SEMESTER 2: "C" or better in MATH 1021/MATH 1029, primary applied music course; 2.25 Cumulative GPA. SEMESTER 3: "C" or better in MUS 2620/MUS 2630, primary applied music course; 2.5 Cumulative GPA. SEMESTER 4: "C" or better in MUS 2622/MUS 2632, primary applied music course; 2.5 Cumulative GPA. SEMESTER 5: "C" or better in MUED 1000, primary applied music course; 2.5 Cumulative GPA.

## Semester 1

**CRITICAL:** "C" or better MUS 1705, primary applied music course; 2.25 Cumulative GPA.

- MUED 1700 Orientation to Music Education (1)
- MUS 1705 The Musician in Society (3)
- MUS 1130 Group Piano I (1 each)
- MUS 2620 Music Theory I (3) or

- MUS 2630 HONORS: Music Theory I (3)
- MATH 1021 College Algebra (3) or
- MATH 1029 Introduction to Contemporary Mathematics (3)
- Primary Applied Music Course (2)
- Major Ensemble Course (1)<sup>1</sup>
- MUS 2621 Aural Skills I (1)

## **Total Semester Hours: 15**

## Semester 2

**CRITICAL:** "C" or better in MATH 1021/MATH 1029, primary applied music course; 2.25 Cumulative GPA.

- MUED 1700 Orientation to Music Education (1)
- MUS 1800 Technology in Music Education (2)
- MUS 1131 Group Piano II (1 each)
- MUS 2622 Music Theory II (3) or
- MUS 2632 HONORS: Music Theory II (3)
- MUS 2623 Aural Skills II (1)
- PSYC 2000 Introduction to Psychology (3)
- Primary Applied Music Course (2)
- Major Ensemble Course (1)<sup>1</sup>
- General Education course Analytical Reasoning
   (3)

## Total Semester Hours: 17

## Semester 3

**CRITICAL:** "C" or better in MUS 2620/MUS 2630, primary applied music course; 2.5 Cumulative GPA.

- MUED 1000 Foundations of Music Education (3)
- MUS 2300 Instrumental and Vocal Techniques (1-2)
- ENGL 1001 English Composition (3)
- MUS 3620 Music Theory III (3) or
- MUS 3630 HONORS: Music Theory III (3)
- MUS 3621 Aural Skills III (1)

- MUS 1132 Group Piano III (1 each)
- Primary Applied Music Course (2)
- Major Ensemble Course (1)<sup>1</sup>

## Semester 4

**CRITICAL:** "C" or better in MUS 2622/MUS 2632, primary applied music course; 2.5 Cumulative GPA.

- MUED 2045 Teaching Music in Diverse Settings (3)
- MUS 2300 Instrumental and Vocal Techniques (1-2)
- ENGL 2000 English Composition (3)
- MUS 1133 Group Piano IV (1 each)
- Primary Applied Music Course (2)
- Major Ensemble Course (1)<sup>1</sup>
- General Education Course Arts (not MUS) (3)

## Total Semester Hours: 15

## Semester 5

**CRITICAL:** "C" or better in MUED 1000, primary applied music course; 2.5 Cumulative GPA.

- MUS 2053 Survey of Music History I (3)
- MUS 2300 Instrumental and Vocal Techniques (1-2)
   (MUS 2300 should be taken for a total of 3 hours)
- MUS 3771 Instrumental Conducting I (2)
- PSYC 2078 Adolescent Psychology (3)
- Primary Applied Music Course (2)
- Major Ensemble Course (1)<sup>1</sup>
- General Education Course Natural Sciences (3)

## Total Semester Hours: 17

## Semester 6

- MUED 3171 Principles of Teaching Secondary School Music (3)
- MUS 2054 Survey of Music History II (3)

- MUS 2400 Jazz Fundamentals for Teachers (1)
- MUS 3772 Instrumental Conducting II (2)
- Primary Applied Music Course (2)
- Major Ensemble Course (1)<sup>1</sup>
- General Education course Natural Sciences (3)
- General Education course Social Sciences (3)

## **Total Semester Hours: 18**

## Semester 7

- MUS 2300 Instrumental and Vocal Techniques (1-2)
- EDCI 3136 Reading in the Content Areas (3)
- MUED 3170 Principles of Teaching Elementary School Music (3)
- Major Ensemble Course (1)<sup>1</sup>
- General Education courses Humanities (6)
- General Education course Natural Sciences (3)

## Total Semester Hours: 18

## Semester 8

- MUED 3630 Student Teaching in Music (9)<sup>2</sup>
- General Education course Humanities (3)

## Total Semester Hours: 12

## 128 Total Sem. Hrs.

<sup>1</sup> - Choose from the following: MUS 4250, MUS 4251, MUS 4252, MUS 4253 (maximum two credit hours), MUS 4254, or MUS 4261. In the instrumental track students whose primary instrument is piano, organ, or guitar must participate in ensembles on a woodwind, brass, orchestral string, or percussion instrument.

<sup>2</sup> - Student teaching is offered each fall and spring semester, scheduled as an all day, Monday through Friday experience. Student teachers must also plan for 3:30-4:30 pm meetings on Mondays. No student may schedule more than 15 semester hours of work during the student teaching semester.

Vocal

## **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in MUS 1705, primary applied music course; 2.25 Cumulative GPA. SEMESTER 2: "C" or better in MATH 1021/MATH 1029, primary applied music course; 2.25 Cumulative GPA. SEMESTER 3: "C" or better in MUS 2620/MUS 2630, primary applied music course; 2.5 Cumulative GPA. SEMESTER 4: "C" or better in MUS 2622/MUS 2632, primary applied music course; 2.5 Cumulative GPA. SEMESTER 5: "C" or better in MUED 1000, primary applied music course; 2.5 Cumulative GPA.

## Semester 1

**CRITICAL:** "C" or better MUS 1705, primary applied music course; 2.25 Cumulative GPA.

- MUED 1700 Orientation to Music Education (1)
- MUS 1705 The Musician in Society (3)
- MUS 1018 Diction for Singers I (1)
- MUS 2620 Music Theory I (3) or
- MUS 2630 HONORS: Music Theory I (3)
- MATH 1021 College Algebra (3) or
- MATH 1029 Introduction to Contemporary Mathematics (3)
- MUS 1130 Group Piano I (1 each)
- Primary Applied Music Course (2)
- Major Ensemble Course (1)<sup>1</sup>
- MUS 2621 Aural Skills I (1)

## Total Semester Hours: 16

## Semester 2

**CRITICAL:** "C" or better in MATH 1021/MATH 1029, primary applied music course; 2.25 Cumulative GPA.

- MUED 1700 Orientation to Music Education (1)
- MUS 1019 Diction for Singers II (1)
- MUS 2622 Music Theory II (3) or
- MUS 2632 HONORS: Music Theory II (3)
- MUS 2623 Aural Skills II (1)

- MUS 1131 Group Piano II (1 each)
- Primary Applied Music Course (2)
- Major Ensemble Course (1)<sup>1</sup>
- General Education course Analytical Reasoning (3)

## Total Semester Hours: 13

## Semester 3

**CRITICAL:** "C" or better in MUS 2620/MUS 2630, primary applied music course; 2.5 Cumulative GPA.

- MUED 1000 Foundations of Music Education (3)
- MUS 1800 Technology in Music Education (2)
- ENGL 1001 English Composition (3)
- MUS 3620 Music Theory III (3) or
- MUS 3630 HONORS: Music Theory III (3)
- MUS 1132 Group Piano III (1 each)
- Primary Approved Music Course (2)
- Major Ensemble Course (1)<sup>1</sup>
- MUS 3621 Aural Skills III (1)

## Total Semester Hours: 16

## Semester 4

**CRITICAL :** "C" or better in MUS 2622/MUS 2632, primary applied music course; 2.5 Cumulative GPA.

- MUED 2045 Teaching Music in Diverse Settings

   (3)
- MUS 2300 Instrumental and Vocal Techniques (1-2)
- PSYC 2000 Introduction to Psychology (3)
- ENGL 2000 English Composition (3)
- MUS 1133 Group Piano IV (1 each)
- Primary Applied Music Course (2)
- Major Ensemble Course (1)<sup>1</sup>
- General Education Course Arts (not MUS) (3)

**Total Semester Hours: 18** 

## Semester 5

CRITICAL: "C" or better in MUED 1000. primary applied music course; 2.5 Cumulative GPA.

- MUS 2053 Survey of Music History I (3)
- MUS 2300 Instrumental and Vocal Techniques (1-2)
- MUS 3334 Group Piano V (1)
- MUS 3749 Choral Literature and Conducting I (1-2)
- PSYC 2078 Adolescent Psychology (3)
- Primary Applied Music Course (2) •
- Major Ensemble Course (1)<sup>1</sup>
- General Education Course Natural Sciences (3)

#### Total Semester Hours: 17

## Semester 6

- MUED 3171 Principles of Teaching Secondary School Music (3)
- MUS 2054 Survey of Music History II (3)
- MUS 3335 Group Piano VI (1)
- MUS 3750 Choral Literature and Conducting II (1-2)
- General Education course Natural Sciences (3)
- Primary Applied Music Course (2)
- Major Ensemble Course  $(1)^1$
- General Education course Humanities (3)

#### Total Semester Hours: 18

## Semester 7

- EDCI 3136 Reading in the Content Areas (3)
- MUED 3170 Principles of Teaching Elementary School Music (3)
- Major Ensemble Course  $(1)^1$ •
- General Education course - Social Sciences (3)
- General Education course Humanities (3)
- General Education course Natural Sciences (3)

#### **Total Semester Hours: 16**

## Semester 8

MUED 3630 Student Teaching in Music (9)<sup>2</sup>

General Education course - Humanities (3)

#### Total Semester Hours: 12

## 126 Total Sem. Hrs.

<sup>1</sup> - Choose from the following: MUS 4232, MUS 4233, MUS 4234, MUS 4235, MUS 4236.

<sup>2</sup> - Student teaching is offered each fall and spring semester, scheduled as an all day, Monday through Friday experience. Student teachers must also plan for 3:30-4:30 pm meetings on Mondays. No student may schedule more than 15 semester hours of work during the student teaching semester.

In the choral track students whose primary instrument is piano, organ, or guitar must complete voice class (MUS 1001, MUS 1002) or equivalent and two semesters of secondary voice lessons.

## Music, B.A.

Without Concentration

Academic Studies

- Arts
  - - Theatre
- Music, B.A.

## **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better MUS 1705, primary applied music course; 2.0 Cumulative GPA. SEMESTER 2: MATH 1021/MATH 1029, "C" or better in primary applied music course; 2.0 Cumulative GPA. SEMESTER 3: "C" or better in MUS 2620/MUS 2630, primary applied music course; 2.0 Cumulative GPA. SEMESTER 4: "C" or better in MUS 2622/MUS 2632, primary applied music course; 2.0 Cumulative GPA. SEMESTER 5: "C" or better in MUS 3620/MUS 3630, primary applied music course; 2.0 Cumulative GPA.

## Semester 1

Media Intradisciplinary Music

Experimental

Music & Digital

- Jazz
- Church Music
- Administration

**CRITICAL:** "C" or better MUS 1705, primary applied music course; 2.0 Cumulative GPA.

- MUS 1500 Defining the Artist (1)
- MUS 1705 The Musician in Society (3)
- MUS 1130 Group Piano I (1 each)
- MATH 1021 College Algebra (3) or
- MATH 1029 Introduction to Contemporary Mathematics (3)
- Primary Applied Music Course (2)<sup>1</sup>
- Major Ensemble Course (1)<sup>2</sup>
- General Education courses Humanities (3)

## **Total Semester Hours: 14**

## Semester 2

**CRITICAL:** MATH 1021/MATH 1029, "C" or better in primary applied music course; 2.0 Cumulative GPA.

- ENGL 1001 English Composition (3)
- MUS 2700 Intro to Music Technology (3)
- MUS 1131 Group Piano II (1 each)
- Primary Applied Music Course (2)<sup>1</sup>
- Major Ensemble Course (1)<sup>2</sup>
- General Education course Analytical Reasoning (3)
- Elective (2)

## **Total Semester Hours: 15**

## Semester 3

**CRITICAL:** "C" or better in MUS 2620/MUS 2630, primary applied music course; 2.0 Cumulative GPA.

- MUS 3500 Preparing the Artist (1)
- MUS 2620 Music Theory I (3) or
- MUS 2630 HONORS: Music Theory I (3)
- MUS 2621 Aural Skills I (1)
- Primary Applied Music Course (2)<sup>1</sup>
- Major Ensemble Course (1)<sup>2</sup>

- General Education course- Humanities (3)
- General Education courses Natural Sciences (6)

## Total Semester Hours: 17

## Semester 4

**CRITICAL:** "C" or better in MUS 2622/MUS 2632, primary applied music course; 2.0 Cumulative GPA.

- ENGL 2000 English Composition (3)
- MUS 2622 Music Theory II (3) or
- MUS 2632 HONORS: Music Theory II (3)
- MUS 2623 Aural Skills II (1)
- Primary Applied Music Course (2)<sup>1</sup>
- Major Ensemble Course (1)<sup>2</sup>
- General Education course Humanities (3)
- Elective (2)

## Total Semester Hours: 15

## Semester 5

**CRITICAL:** "C" or better in MUS 3620/MUS 3630, primary applied music course; 2.0 Cumulative GPA.

- MUS 2053 Survey of Music History I (3)
- MUS 3620 Music Theory III (3) or
- MUS 3630 HONORS: Music Theory III (3)
- MUS 3621 Aural Skills III (1)
- Primary Applied Music Course (2)<sup>1</sup>
- General Education course Natural Sciences (3)
- Minor Area Course (3)<sup>3</sup>
- Elective (2)

## Total Semester Hours: 17

## Semester 6

• MUS 2054 Survey of Music History II (3)

- MUS 3622 Music Theory IV (3) or
- MUS 3632 HONORS: Music Theory IV (3)
- MUS 3623 Aural Skills IV (1)
- Primary Applied Music Course (2)<sup>1</sup>
- Minor Area Courses (6)<sup>3</sup>

## Semester 7

- General Education course Social Sciences (6)
- Minor Area Course (3)<sup>3</sup>
- Electives (4)

## Total Semester Hours: 13

## Semester 8

- MUS 4749 Seminar in Music History (3)
- MUS 4501 Senior Project (1)
- Elective (1)
- Minor Area Courses (6)<sup>3</sup>
- General Education Course Arts (not MUS) (3)

## **Total Semester Hours: 14**

## 120 Total Sem. Hrs.

<sup>1-</sup> Registration in an appropriate music ensemble may be a corequisite for registering for applied music courses. The requirement for 12 hours of applied music courses may be satisfied by taking six semesters of applied music for two hours of credit or four semesters of applied music for three hours of credit.

<sup>2-</sup> Choose from the following: MUS 4232, MUS 4233, MUS 4234, MUS 4235, MUS 4236, MUS 4250, MUS 4251, MUS 4252, MUS 4254 or MUS 4261. BA in Music may select MUS 4253 for maximum of two of the four required ensemble hours.

<sup>3-</sup> If students declare a minor with fewer than 18 hours credit, then the additional hours must be taken as electives.

## Area of Concentration

## Academic Studies

## **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better MUS 1705, primary applied music course; 2.0 Cumulative GPA. SEMESTER 2: "C" or better in primary applied music course; 2.0 Cumulative GPA. SEMESTER 3: "C" or better in MUS 2620/MUS 2630, primary applied music course; 2.0 Cumulative GPA. SEMESTER 4: "C" or better in MUS 2622/MUS 2632, primary applied music course; 2.0 Cumulative GPA. SEMESTER 5: "C" or better in MUS 3620/MUS 3630, primary applied music course; 2.0 Cumulative GPA.

## Semester 1

**Critical:** "C" or better in MUS 1705, primary applied music course; 2.0 Cumulative GPA.

- MUS 1500 Defining the Artist (1)
- MUS 1705 The Musician in Society (3)
- MUS 1130 Group Piano I (1 each)
- MATH 1021 College Algebra (3) or
- MATH 1029 Introduction to Contemporary Mathematics (3)
- Primary Applied Music Course (2)
- Major Ensemble Course (1)
- General Education courses Humanities (3)

#### Total Semester Hours: 14

#### Semester 2

**Critical**: "C" or better in primary applied music course, 2.0 Cumulative GPA.

- ENGL 1001 English Composition (3) or
- ENGL 1004 English Composition (3)
- MUS 2700 Intro to Music Technology (3)
- MUS 1131 Group Piano II (1 each)
- Primary Applied Music Course (2)
- Major Ensemble Course (1)
- General Education courses Analytical Reasoning (3)
- Elective (3)

## Semester 3

**Critical**: "C" or better in MUS 2620/MUS 2630, primary applied music course; 2.0 Cumulative GPA.

- MUS 3500 Preparing the Artist (1)
- MUS 2620 Music Theory I (3) or
- MUS 2630 HONORS: Music Theory I (3)
- MUS 2621 Aural Skills I (1)
- MUS 2053 Survey of Music History I (3)
- Primary Applied Music Course (2)
- Major Ensemble Course (1)
- General Education courses Humanities (3)
- General Education courses Natural Sciences (3)

## Total Semester Hours: 17

## Semester 4

**Critical:** "C" or better in MUS 2622/MUS 2632, primary applied music course; 2.0 Cumulative GPA.

- ENGL 2000 English Composition (3)
- MUS 2622 Music Theory II (3) or
- MUS 2632 HONORS: Music Theory II (3)
- MUS 2623 Aural Skills II (1)
- MUS 2054 Survey of Music History II (3)
- Primary Applied Music Course (2)
- Major Ensemble Course (1)
- General Education courses Humanities (3)

## Total Semester Hours: 16

## Semester 5

**Critical:** "C" or better in MUS 3620/MUS 3630, primary applied music course; 2.0 Cumulative GPA.

- MUS 3620 Music Theory III (3) or
- MUS 3630 HONORS: Music Theory III (3)

- MUS 3621 Aural Skills III (1)
- MUS 4749 Seminar in Music History (3) <sup>1</sup>
- Primary Applied Music Course (2)
- General Education courses Natural Sciences (3)
- Elective (3)

#### Total Semester Hours: 15

## Semester 6

- MUS 3622 Music Theory IV (3) or
- MUS 3632 HONORS: Music Theory IV (3)
- MUS 3623 Aural Skills IV (1)
- Primary Applied Music Course (2)
- 4000-level Music History (3)
- 4000-level Music History (3)<sup>2</sup>
- Elective (3)

#### Total Semester Hours: 15

## Semester 7

- General Education courses Social Sciences (6)
- Foreign Language (4)
- 4000-level Music History (3)

#### **Total Semester Hours: 13**

## Semester 8

- MUS 4501 Senior Project (1)
- 4000-level Music History (3)
- Foreign Language (4)
- General Education courses Natural Sciences (3)
- General Education courses Arts (not MUS) (3)

## Total Semester Hours: 14

## 120 Total Semester Hours

<sup>1</sup>- 4000-level Music History courses include MUS 4749 Seminar in Music History. This seminar may be taken multiple times on different topics, for example, History of Technologies in Music, Shakespeare and Verdi, World Musics, and Film Music. In this semester, MUS 4749 satisfies a core requirement. <sup>2</sup>- These include MUS 4710 Advanced Aural Skills, MUS 4712 Advanced Form and Analysis, MUS 4718 Styles and Practices of Beethoven and the Romantics, MUS 4720 Post-Tonal Styles and Practices, MUS 4725 Survey of Contrapuntal Techniques, MUS 4730 Elementary Orchestration

## Arts Administration

## **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better MUS 1705, primary applied music course; 2.0 Cumulative GPA.

SEMESTER 2: "C" or better in primary applied music course; 2.0 Cumulative GPA.

SEMESTER 3: "C" or better in MUS 2620/MUS 2630, primary applied music course; 2.0 Cumulative GPA. SEMESTER 4: "C" or better in MUS 2622/MUS 2632, primary applied music course; 2.0 Cumulative GPA. SEMESTER 5: "C" or better in MUS 3620/MUS 3630, primary applied music course; 2.0 Cumulative GPA.

## Semester 1

**Critical:** "C" or better in MUS 1705, primary applied music course; 2.0 Cumulative GPA.

- MUS 1500 Defining the Artist (1)
- MUS 1705 The Musician in Society (3)
- MUS 1130 Group Piano I (1 each)
- MATH 1021 College Algebra (3) or
- MATH 1029 Introduction to Contemporary Mathematics (3)
- Primary Applied Music Course (2)
- Major Ensemble Course (1)
- General Education courses Humanities (3)

#### **Total Semester Hours: 14**

#### Semester 2

**Critical**: "C" or better in primary applied music course, 2.0 Cumulative GPA.

- ENGL 1001 English Composition (3) or
- ENGL 1004 English Composition (3)
- MUS 2700 Intro to Music Technology (3)

- MUS 1131 Group Piano II (1 each)
- Primary Applied Music Course (2)
- Major Ensemble Course (1)
- General Education courses Analytical Reasoning (3)
- Elective (2)

**Total Semester Hours: 15** 

#### Semester 3

**Critical**: "C" or better in MUS 2620/MUS 2630, primary applied music course; 2.0 Cumulative GPA.

- MUS 3500 Preparing the Artist (1)
- MUS 2620 Music Theory I (3) or
- MUS 2630 HONORS: Music Theory I (3)
- MUS 2621 Aural Skills I (1)
- Primary Applied Music Course (2)
- Major Ensemble Course (1)
- General Education courses Humanities (3)
- General Education courses Natural Sciences (3)

#### **Total Semester Hours: 14**

#### Semester 4

**Critical:** "C" or better in MUS 2622/MUS 2632, primary applied music course; 2.0 Cumulative GPA.

- ENGL 2000 English Composition (3)
- MUS 2622 Music Theory II (3) or
- MUS 2632 HONORS: Music Theory II (3)
- MUS 2623 Aural Skills II (1)
- Primary Applied Music Course (2)
- Major Ensemble Course (1)
- General Education courses Humanities (3)
- General Education courses Social Science [Not Econ 2030] (3)

Total Semester Hours: 16

#### Semester 5

**Critical:** "C" or better in MUS 3620/MUS 3630, primary applied music course; 2.0 Cumulative GPA.

- MUS 3620 Music Theory III (3) or
- MUS 3630 HONORS: Music Theory III (3)
- MUS 2053 Survey of Music History I (3)
- MUS 3621 Aural Skills III (1)
- ACCT 2000 Survey of Accounting (3)
- THTR 3320 Introduction to Arts Management (3)
- Primary Applied Music Course (2)

Total Semester Hours: 15

#### Semester 6

- MUS 2054 Survey of Music History II (3)
- MUS 3622 Music Theory IV (3) or
- MUS 3632 HONORS: Music Theory IV (3)
- MUS 3623 Aural Skills IV (1)
- ECON 2030 Economic Principles (3)
- THTR 4320 Advanced Arts Management (3)
- Primary Applied Music Course (2)

#### Total Semester Hours: 15

#### Semester 7

- THTR 3340 Arts Marketing (3)
- THTR 4300 Special Topics in Arts Administration (3)
- MKT 3401 Principles of Marketing (3)
- General Education courses Social Sciences [Not ECON 2030] (3)
- General Education courses Natural Sciences (3)

#### **Total Semester Hours: 15**

## Semester 8

- MUS 4749 Seminar in Music History (3)
- MUS 4501 Senior Project (1)
- THTR 4300 Special Topics in Arts Administration (3)
- THTR 4350 Fundraising for the Arts (3)

- General Education courses Natural Sciences (3)
- General Education courses Arts (not MUS) (3)

Total Semester Hours: 16

120 Total Semester Hours

## Church Music

## **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better MUS 1705, primary applied music course; 2.0 Cumulative GPA. SEMESTER 2: "C" or better in primary applied music course; 2.0 Cumulative GPA. SEMESTER 3: "C" or better in MUS 2620/MUS 2630, primary applied music course; 2.0 Cumulative GPA. SEMESTER 4: "C" or better in MUS 2622/MUS 2632, primary applied music course; 2.0 Cumulative GPA. SEMESTER 5: "C" or better in MUS 2053, primary applied music course; 2.0 Cumulative GPA.

#### Semester 1

**CRITICAL:** "C" or better MUS 1705, primary applied music course; 2.0 Cumulative GPA.

- MUS 1130 Group Piano I (1 each)
- MUS 1705 The Musician in Society (3)
- MATH 1021 College Algebra (3) or
- MATH 1029 Introduction to Contemporary Mathematics (3)
- Primary Applied Music Course (2)
- Major Ensemble Course (1)
- General Education courses Humanities [not REL 1000, 1004, 1005] (3)

#### Total Semester Hours: 13

#### Semester 2

**Critical**: "C" or better in primary applied music course, 2.0 Cumulative GPA.

- MUS 1131 Group Piano II (1 each)
- MUS 1500 Defining the Artist (1)
- MUS 2700 Intro to Music Technology (3)

- ENGL 1001 English Composition (3) or
- ENGL 1004 English Composition (3)
- REL 1000 Religions of the World (3) or
- REL 1004 Old Testament (3) or
- REL 1005 New Testament (3)
- Primary Applied Music Course (2)
- Major Ensemble Course (1)
- General Education courses Analytical Reasoning (3)

## Semester 3

**Critical**: "C" or better in MUS 2620/MUS 2630, primary applied music course; 2.0 Cumulative GPA.

- MUS 1132 Group Piano III (1 each)
- MUS 2620 Music Theory I (3) or
- MUS 2630 HONORS: Music Theory I (3)
- MUS 2621 Aural Skills I (1)
- MUS 3500 Preparing the Artist (1)
- Primary Applied Music Course (2)
- Major Ensemble Course (1)
- General Education courses Social Sciences (3)
- General Education courses Natural Sciences (3)

## Total Semester Hours: 15

## Semester 4

**Critical:** "C" or better in MUS 2622/MUS 2632, primary applied music course; 2.0 Cumulative GPA.

- MUS 1133 Group Piano IV (1 each)
- MUS 2622 Music Theory II (3) or
- MUS 2632 HONORS: Music Theory II (3)
- MUS 2623 Aural Skills II (1)
- ENGL 2000 English Composition (3)
- Primary Applied Music Course (2)<sup>1</sup>

- Major Ensemble Course (1)
- General Education courses Humanities [not REL 1000, 1004, 1005] (3)
- Elective  $(2-3)^2$

Total Semester Hours: 16-17

## Semester 5

**CRITICAL**: "C" or better in MUS 2053, primary applied music course; 2.0 Cumulative GPA.

- MUS 1018 Diction for Singers I (1)
- MUS 2053 Survey of Music History I (3)
- MUS 3334 Group Piano V (1)
- MUS 3620 Music Theory III (3) or
- MUS 3630 HONORS: Music Theory III (3)
- MUS 3621 Aural Skills III (1)
- Primary Applied Music Course (2)
- REL Elective (3)<sup>3</sup>

Total Semester Hours: 14

## Semester 6

- MUS 1019 Diction for Singers II (1)
- MUS 2054 Survey of Music History II (3)
- MUS 3335 Group Piano VI (1) or
- MUS 4701 Organ Practicum (2)
- MUS 3622 Music Theory IV (3) or
- MUS 3632 HONORS: Music Theory IV (3)
- MUS 3623 Aural Skills IV (1)
- MUS 4502 Music in Religious Services (3)
- Primary Applied Music Course (2)

#### Total Semester Hours: 15-14

## Semester 7

- MUS 3749 Choral Literature and Conducting I (1-2)
- MUS 3757 Organ Literature, History and Design (3)

- Primary Applied Music Course (2)
- General Education courses Humanities [not REL 1000, 1004, 1005] (3)
- General Education courses Social Sciences (3)
- General Education courses Natural Sciences (3)

#### Semester 8

- MUS 3750 Choral Literature and Conducting II (1-2)
- MUS 4501 Senior Project (1)
- MUS 4749 Seminar in Music History (3)
- Primary Applied Music Course (2)
- General Education courses Natural Sciences (3)
- General Education Course Arts (not MUS) (3)

#### **Total Semester Hours: 14**

## 120 Total Semester Hours

<sup>1</sup>- At the completion of this semester a performance examination will determine continued study in this concentration.

<sup>2</sup>- Organists will have a 2 hour elective requirement in this semester; they will take MUS 4701 in Semester 6.

<sup>3</sup>- Electives to be chosen from REL 2000, REL 2006, REL 2025, REL 2028, REL 2029/REL 2030, REL 2033, REL 3000, REL 3010, REL 3030, REL 3092, REL 3102, REL 3104, REL 3124, REL 3300, REL 4012, REL 4018, REL 4032, REL 4050, REL 4125, REL 4161, REL 4171, REL 4200, REL 4227, REL 4400, REL 4500, REL 4505, or REL 4507.

## Experimental Music & Digital Media

## **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better MUS 1705; 2.0 Cumulative GPA.

SEMESTER 2: "C" or better in primary applied music course, 2.0 Cumulative GPA.

SEMESTER 3: "C" or better in MUS 2620/MUS

2630, primary applied music course; 2.0 Cumulative GPA. SEMESTER 4: "C" or better in MUS 2622/MUS

2632, primary applied music course; 2.0 Cumulative GPA.

SEMESTER 5: "C" or better in MUS 3620/MUS 3630, primary applied music course; 2.0 Cumulative GPA.

#### Semester 1

**CRITICAL:** "C" or better MUS 1705; 2.0 Cumulative GPA.

- MUS 1500 Defining the Artist (1)
- MUS 1705 The Musician in Society (3)
- MUS 1130 Group Piano I (1 each)
- MATH 1550 Analytic Geometry and Calculus I (5) or
- MATH 1021 College Algebra (3) and Approved Electives (2) or
- MATH 1029 Introduction to Contemporary Mathematics (3) and Approved Electives (2)<sup>4</sup>
- Major Ensemble Course (1)
- AVATAR Minor Area Course (3)

#### **Total Semester Hours: 14**

#### Semester 2

**CRITICAL:** "C" or better in primary applied music course; 2.0 Cumulative GPA.

- MUS 2745 Introduction to Computer Music (3)
- ENGL 1001 English Composition (3)
- MUS 1131 Group Piano II (1 each)
- Major Ensemble Course (1)
- General Education Course Analytical Reasoning (3)<sup>5</sup>
- Approved Elective (1)
- General Education Course Humanities (3)

#### **Total Semester Hours: 15**

#### Semester 3

**CRITICAL:** "C" or better in MUS 2620/MUS 2630, primary applied music course; 2.0 Cumulative GPA.

• MUS 4270 Experimental Music & Digital Media Ensemble (1)

- MUS 2620 Music Theory I (3) or
- MUS 2630 HONORS: Music Theory I (3)
- MUS 2621 Aural Skills I (1)
- Primary Applied Music Course (3)<sup>1</sup>
- General Education Course Humanities (3)
- General Education Course Natural Sciences Sequence (3)<sup>3</sup>

#### Semester 4

**CRITICAL:** "C" or better in MUS 2622/MUS 2632, primary applied music course; 2.0 Cumulative GPA.

- ENGL 2000 English Composition (3)
- CSC 2463 Programming Digital Media (3)
- MUS 2622 Music Theory II (3) or
- MUS 2632 HONORS: Music Theory II (3)
- MUS 2623 Aural Skills II (1)
- General Education course Natural Sciences Sequence (3)<sup>3</sup>
- Primary Applied Music Course (3)<sup>1</sup>

#### Total Semester Hours: 16

## Semester 5

**CRITICAL:** "C" or better in MUS 3620/MUS 3630, primary applied music course; 2.0 Cumulative GPA.

- MUS 3500 Preparing the Artist (1)
- MUS 2053 Survey of Music History I (3)
- MUS 4270 Experimental Music & Digital Media Ensemble (1)
- MUS 4745 Computer Music (3)
- MUS 3620 Music Theory III (3) or
- MUS 3630 HONORS: Music Theory III (3)
- MUS 3621 Aural Skills III (1)
- Primary Applied Music Course (3)<sup>1</sup>

#### **Total Semester Hours: 15**

#### Semester 6

- MUS 2054 Survey of Music History II (3)
- MUS 3622 Music Theory IV (3) or
- MUS 3632 HONORS: Music Theory IV (3)
- MUS 3623 Aural Skills IV (1)
- Primary Applied Music Course (3)<sup>1</sup>
- AVATAR Minor Area Course (3)<sup>6</sup>
- General Education Courses Social Sciences (3)

#### **Total Semester Hours: 16**

#### Semester 7

- MUS 4749 Seminar in Music History (3)
- CSC 1253 Computer Science I with C++ (3)
- Upper Division Music Elective (3)<sup>2</sup>
- General Education Course Natural Sciences (3)
- Approved Elective (4)

#### **Total Semester Hours: 16**

#### Semester 8

- MUS 4501 Senior Project (1)
- AVATAR Minor Capstone Course (3)
- General Education Course Humanities (3)
- Approved Electives (4)
- General Education Courses Social Sciences (3)

#### **Total Semester Hours: 14**

#### 120 Total Sem. Hrs.

<sup>1</sup> - Registration in an appropriate music ensemble may be a co-requisite for registering for applied music courses. The requirement for 12 hours of applied music courses may be satisfied by taking six semesters of applied music for two hours of credit or four semesters of applied music for three hours of credit.

<sup>2</sup> - Choose from the following: MUS 4710, MUS 4712, MUS 4718, MUS 4720, MUS 4744, MUS 4746, MUS 4748, MUS 4749, MUS 4759.

<sup>3</sup> - Students are encouraged but not required to take either PHYS 2110 and PHYS 2112 or PHYS 2001 and PHYS 2002, which can fulfill the general education natural science sequence requirement. Students should note that PHYS 2110 requires at least concurrent enrollment in MATH 1552. PHYS 2001 requires trigonometry and/or calculus as a prerequisite.

<sup>4</sup> - Students are encouraged but not required to take MATH1550 to fulfill the first semester of analytical reasoning.

<sup>5</sup> - Students are encouraged but not required to take MATH 1552 to fulfill the second semester of analytical reasoning.

<sup>6</sup> - Students should enroll in an AVATAR Minor Area course that also satisfies the General Education Arts course requirement (not MUS).

## Intradisciplinary Music

## **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better MUS 1705, primary applied music course; 2.0 Cumulative GPA.

SEMESTER 2: "C" or better in primary applied music course; 2.0 Cumulative GPA.

SEMESTER 3: "C" or better in MUS 2620/MUS 2630, primary applied music course; 2.0 Cumulative GPA. SEMESTER 4: "C" or better in MUS 2622/MUS 2632, primary applied music course; 2.0 Cumulative GPA. SEMESTER 5: "C" or better in MUS 3620/MUS 3630, primary applied music course; 2.0 Cumulative GPA.

#### Semester 1

**CRITICAL:** "C" or better MUS 1705, primary applied music course; 2.0 Cumulative GPA.

- MUS 1500 Defining the Artist (1)
- MUS 1705 The Musician in Society (3)
- MUS 1130 Group Piano I (1 each)
- MATH 1021 College Algebra (3) or
- MATH 1029 Introduction to Contemporary Mathematics (3)
- Primary Applied Music Course (2)
- Major Ensemble Course (1)
- General Education courses Humanities (3)

#### Total Semester Hours: 14

#### Semester 2

**Critical**: "C" or better in primary applied music course, 2.0 Cumulative GPA

- ENGL 1001 English Composition (3) or
- ENGL 1004 English Composition (3)
- MUS 2700 Intro to Music Technology (3)
- MUS 1131 Group Piano II (1 each)
- Primary Applied Music Course (2)
- Major Ensemble Course (1)
- General Education courses Analytical Reasoning (3)
- Elective (3)

#### **Total Semester Hours: 15**

#### Semester 3

**Critical**: "C" or better in MUS 2620/MUS 2630, primary applied music course; 2.0 Cumulative GPA.

- MUS 3500 Preparing the Artist (1)
- MUS 2620 Music Theory I (3) or
- MUS 2630 HONORS: Music Theory I (3)
- MUS 2621 Aural Skills I (1)
- Primary Applied Music Course (2)
- Major Ensemble Course (1)
- General Education courses Humanities (3)
- General Education courses Natural Sciences (3)

#### Total Semester Hours: 14

#### Semester 4

**Critical:** "C" or better in MUS 2622/MUS 2632, primary applied music course; 2.0 Cumulative GPA.

- ENGL 2000 English Composition (3)
- MUS 2622 Music Theory II (3) or
- MUS 2632 HONORS: Music Theory II (3)
- MUS 2623 Aural Skills II (1)

- Primary Applied Music Course (2)
- Major Ensemble Course (1)
- General Education courses Humanities (3)
- Elective (2)

## Semester 5

Concentration courses in Semesters 5, 6, and 7 require approval by the student's advisory committee prior to Semester 5. Revisions must be made in consultation with the committee.

**Critical:** "C" or better in MUS 3620/MUS 3630, primary applied music course; 2.0 Cumulative GPA.

- MUS 2053 Survey of Music History I (3)
- MUS 3620 Music Theory III (3) or
- MUS 3630 HONORS: Music Theory III (3)
- MUS 3621 Aural Skills III (1)
- Primary Applied Music Course (2)
- Major Ensemble Course (1)
- Approved Concentration Course (6)<sup>1</sup>

## Total Semester Hours: 16

## Semester 6

- MUS 2054 Survey of Music History II (3)
- MUS 3622 Music Theory IV (3) or
- MUS 3632 HONORS: Music Theory IV (3)
- MUS 3623 Aural Skills IV (1)
- Primary Applied Music Course (2)
- Major Ensemble Course (1)
- Approved Concentration Courses (6)<sup>1</sup>

#### Total Semester Hours: 16

## Semester 7

- General Education courses Social Sciences (3)
- Any Approved Applied Music Course (2)<sup>2</sup>
- Approved Concentration Course (3)<sup>1</sup>

- General Education courses Natural Sciences (3)
- Elective (1)

## Total Semester Hours: 15

## Semester 8

- MUS 4749 Seminar in Music History (3)
- MUS 4501 Senior Project (1)
- Any Approved Applied Music Course (2)<sup>2</sup>
- General Education courses Natural Sciences (3)
- General Education Course Arts (not MUS) (3)
- Approved Concentration Course (3)<sup>1</sup>

Total Semester Hours: 15

## 120 Total Semester Hours

<sup>1</sup>- Approved Concentration Courses may be any approved 3000 or 4000-level MUS Course OR 2000 or 3000-level MUED Course OR 3000 or 4000-level non-music course.

<sup>2</sup>- Any Approved Applied Music Course includes the option of continuing study in the Primary Applied area.

## Jazz

## **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better MUS 1705, primary applied music course; 2.0 Cumulative GPA. SEMESTER 2: "C" or better in primary applied music course; 2.0 Cumulative GPA. SEMESTER 3: "C" or better in MUS 2620/ MUS 2630, primary applied music course; 2.0 Cumulative GPA. SEMESTER 4: "C" or better in MUS 2622/MUS 2632, primary applied music course; 2.0 Cumulative GPA. SEMESTER 5: "C" or better in MUS 3620/MUS 3630, primary applied music course; 2.0 Cumulative GPA.

## Semester 1

**CRITICAL:** "C" or better MUS 1705, primary applied music course; 2.0 Cumulative GPA.

- MUS 1500 Defining the Artist (1)
- MUS 1705 The Musician in Society (3)

- MUS 1130 Group Piano I (1 each)
- MUS 3154 Primary Jazz (2-3)<sup>1</sup>
- MUS 4253 Jazz Band (1) or
- MUS 4255 Chamber Jazz (1)
- MATH 1021 College Algebra (3) or
- MATH 1029 Introduction to Contemporary Mathematics (3)
- General Education Course Humanities (3)

#### Semester 2

**CRITICAL:** "C" or better in primary applied music course; 2.0 Cumulative GPA.

- ENGL 1001 English Composition (3)
- MUS 1131 Group Piano II (1 each)
- MUS 2700 Intro to Music Technology (3)
- MUS 3154 Primary Jazz (2-3)
- MUS 4253 Jazz Band (1) or
- MUS 4255 Chamber Jazz (1)
- General Education Course Analytical Reasoning (3)

Total Semester Hours: 14

## Semester 3

**CRITICAL**: "C" or better in MUS 2620/MUS 2630, primary applied music course; 2.0 Cumulative GPA.

- MUS 3500 Preparing the Artist (1)
- MUS 2621 Aural Skills I (1)
- MUS 3154 Primary Jazz (2-3)<sup>1</sup>
- MUS 4253 Jazz Band (1)
- MUS 2620 Music Theory I (3) or
- MUS 2630 HONORS: Music Theory I (3)
- General Education Course Natural Sciences (6)

Total Semester Hours: 15

## Semester 4

**CRITICAL:** "C" or better in MUS 2622/MUS 2632, primary applied music course; 2.0 Cumulative GPA.

- ENGL 2000 English Composition (3)
- MUS 2623 Aural Skills II (1)
- MUS 3154 Primary Jazz (2-3)
- MUS 2622 Music Theory II (3) or
- MUS 2632 HONORS: Music Theory II (3)
- MUS 4253 Jazz Band (1) or
- MUS 4255 Chamber Jazz (1)
- General Education Course Humanities (3)

Total Semester Hours: 14

## Semester 5

**CRITICAL**: "C" or better in MUS 3620/MUS 3630, primary applied music course; 2.0 Cumulative GPA.

- MUS 2053 Survey of Music History I (3)
- MUS 3620 Music Theory III (3) or
- MUS 3630 HONORS: Music Theory III (3)
- MUS 3621 Aural Skills III (1)
- General Education Course Humanities (3)
- General Education Course Natural Sciences (3)
- MUS 3154 Primary Jazz (2-3)
- MUS 4253 Jazz Band (1) or
- MUS 4255 Chamber Jazz (1)

## Total Semester Hours: 17

## Semester 6

- MUS 2054 Survey of Music History II (3)
- MUS 3622 Music Theory IV (3) or
- MUS 3632 HONORS: Music Theory IV (3)
- MUS 3623 Aural Skills IV (1)

- MUS 3154 Primary Jazz (2-3)
- MUS 4253 Jazz Band (1)
- MUS 4255 Chamber Jazz (1)
- MUS 4735 Jazz Arranging (2)

#### Semester 7

- MUS 4749 Seminar in Music History (3)
- General Education Course Social Sciences (6)
- MUS 2400 Jazz Fundamentals for Teachers (1)
- MUS 3154 Primary Jazz (2-3)
- MUS 4253 Jazz Band (1)
- MUS 4255 Chamber Jazz (1)
- Approved Elective (1)

#### Total Semester Hours: 16

#### Semester 8

- MUS 4797 Senior Recital (1)
- Approved Elective (4)
- General Education Course Arts (not MUS) (3)
- MUS 3154 Primary Jazz (2-3)
- MUS 4253 Jazz Band (1)
- MUS 4255 Chamber Jazz (1)
- MUS 4759 History of Jazz Styles (3)

Total Semester Hours: 15

#### 120 Total Sem. Hrs.

<sup>1</sup>- Registration in an appropriate music ensemble may be a corequisite for registering for applied music courses.

## Theatre

## **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better MUS 1705, primary applied music course; 2.0 Cumulative GPA.

SEMESTER 2: "C" or better in primary applied music course; 2.0 Cumulative GPA.

SEMESTER 3: "C" or better in MUS 2620/MUS 2630, primary applied music course; 2.0 Cumulative GPA. SEMESTER 4: "C" or better in MUS 2622/MUS 2632, primary applied music course; 2.0 Cumulative GPA. SEMESTER 5: "C" or better in MUS 3620/MUS 3630, primary applied music course; 2.0 Cumulative GPA.

#### Semester 1

**Critical:** "C" or better in MUS 1705, primary applied music course; 2.0 Cumulative GPA.

- MUS 1500 Defining the Artist (1)
- MUS 1705 The Musician in Society (3)
- MUS 1130 Group Piano I (1 each)
- MATH 1021 College Algebra (3) or
- MATH 1029 Introduction to Contemporary Mathematics (3)
- Primary Applied Music Course (2)
- Major Ensemble Course (1)
- General Education courses Humanities (3)

#### **Total Semester Hours: 14**

#### Semester 2

**Critical**: "C" or better in primary applied music course, 2.0 Cumulative GPA.

- ENGL 1001 English Composition (3) or
- ENGL 1004 English Composition (3)
- MUS 1131 Group Piano II (1 each)
- MUS 2700 Intro to Music Technology (3)
- Primary Applied Music Course (2)
- Major Ensemble Course (1)
- General Education courses Analytical Reasoning (3)
- Elective (2)

#### **Total Semester Hours: 15**

#### Semester 3

**Critical**: "C" or better in MUS 2620/MUS 2630, primary applied music course; 2.0 Cumulative GPA.

- MUS 3500 Preparing the Artist (1)
- MUS 2620 Music Theory I (3) or

- MUS 2630 HONORS: Music Theory I (3)
- MUS 2621 Aural Skills I (1)
- Primary Applied Music Course (2)
- Major Ensemble Course (1)
- General Education courses Natural Sciences (3)
- Concentration Area Course THTR 1025 Acting I: Introduction to Acting (3)

#### Semester 4

**CRITICAL:** "C" or better in MUS 2622/MUS 2632, primary applied music course; 2.0 Cumulative GPA.

- ENGL 2000 English Composition (3)
- MUS 2622 Music Theory II (3) or
- MUS 2632 HONORS: Music Theory II (3)
- MUS 2623 Aural Skills II (1)
- Primary Applied Music Course (2)
- Major Ensemble Course (1)
- General Education courses Humanities (3)
- Concentration Area Course THTR 2022 Introduction to Theatrical Design (3)

#### Total Semester Hours: 16

#### Semester 5

**CRITICAL**: "C" or better in MUS 3620/MUS 3630, primary applied music course; 2.0 Cumulative GPA.

- MUS 2053 Survey of Music History I (3)
- MUS 3620 Music Theory III (3) or
- MUS 3630 HONORS: Music Theory III (3)
- MUS 3621 Aural Skills III (1)
- Primary Applied Music Course (2)
- General Education Course Humanities (3)
- General Education Course Natural Sciences (3)
- Concentration Area Course THTR 2026 Theatre Practicum I (1)

#### **Total Semester Hours: 16**

#### Semester 6

- MUS 2054 Survey of Music History II (3)
- MUS 3622 Music Theory IV (3) or
- MUS 3632 HONORS: Music Theory IV (3)
- MUS 3623 Aural Skills IV (1)
- Concentration Area Course THTR 2130 Script Analysis (3)
- Primary Applied Music Course (2)
- Electives (3)

#### **Total Semester Hours: 15**

#### Semester 7

- General Education courses Social Sciences (6)
- General Education courses Natural Sciences (3)
- Concentration Area Course (3) THTR 3\*\*\* or 4\*\*\*\*
- Elective (4)

#### **Total Semester Hours: 16**

#### Semester 8

- MUS 4749 Seminar in Music History (3)
- MUS 4501 Senior Project (1)
- Concentration Area Course (6) THTR 3\*\*\* or 4\*\*\*\*
- Elective (4)

Total Semester Hours: 14

120 Total Semester Hours

## Music, B.M.

Areas of Concentration

Brass/Woodwind/Percussion

## **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better MUS 1705, primary applied music course; 2.0 Cumulative GPA. SEMESTER 2: "C" or better in MATH 1021/MATH 1029, primary applied music course; 2.0 Cumulative GPA. SEMESTER 3: "C" or better in MUS 2620/ MUS 2630, primary applied music course; 2.0 Cumulative GPA. SEMESTER 4: "C" or better in MUS 2622/MUS 2632, primary applied music course; 2.0 Cumulative GPA. SEMESTER 5: "C" or better in MUS 3620/MUS 3630, primary applied music course; 2.0 Cumulative GPA.

## Semester 1

**CRITICAL:** "C" or better MUS 1705, primary applied music course; 2.0 Cumulative GPA.

- MUS 1500 Defining the Artist (1)
- MUS 1705 The Musician in Society (3)
- MUS 1130 Group Piano I (1 each)
- MUS 2620 Music Theory I (3) or
- MUS 2630 HONORS: Music Theory I (3)
- MATH 1021 College Algebra (3) or
- MATH 1029 Introduction to Contemporary Mathematics (3)<sup>2</sup>
- Primary Applied Music Course (3)
- Major Ensemble Course (1)<sup>1</sup>
- MUS 2621 Aural Skills I (1)

#### **Total Semester Hours: 16**

## Semester 2

**CRITICAL:** "C" or better in MATH 1021/MATH 1029, primary applied music course; 2.0 Cumulative GPA.

- ENGL 1001 English Composition (3)<sup>2</sup>
- MUS 1131 Group Piano II (1 each)
- MUS 2622 Music Theory II (3) or
- MUS 2632 HONORS: Music Theory II (3)
- MUS 2623 Aural Skills II (1)
- Primary Applied Music Course (3)
- Major Ensemble Course (1)<sup>1</sup>
- MUS 2700 Intro to Music Technology (3)

#### **Total Semester Hours: 15**

#### Semester 3

**CRITICAL:** "C" or better in MUS 2620/MUS 2630, primary applied music course; 2.0 Cumulative GPA.

- MUS 3500 Preparing the Artist (1)
- MUS 1132 Group Piano III (1 each)
- MUS 3620 Music Theory III (3) or
- MUS 3630 HONORS: Music Theory III (3)
- MUS 3621 Aural Skills III (1)
- Primary Applied Music Course (3)
- Major Ensemble Course (1)<sup>1</sup>
- General Education course Analytical Reasoning (3)<sup>2</sup>
- General Education course Natural Sciences (3)

## **Total Semester Hours: 16**

## Semester 4

**CRITICAL:** "C" or better in MUS 2622/MUS 2632, primary applied music course; 2.0 Cumulative GPA.

- MUS 1133 Group Piano IV (1 each)
- ENGL 2000 English Composition (3)
- MUS 3622 Music Theory IV (3) or
- MUS 3632 HONORS: Music Theory IV (3)
- MUS 3623 Aural Skills IV (1)
- Primary Applied Music Course (3)
- Major Ensemble Course (1)<sup>1</sup>
- General Education course Natural Sciences (3)

#### **Total Semester Hours: 15**

## Semester 5

**CRITICAL:** "C" or better in MUS 3620/MUS 3630, primary applied music course; 2.0 Cumulative GPA.

• MUS 2053 Survey of Music History I (3)

- MUS 3771 Instrumental Conducting I (2)
- MUS 4222 Woodwind Chamber Music (1) or
- MUS 4223 Brass Chamber Music (1) or
- MUS 4226 Percussion Ensemble (1) or
- MUS 4227 Marimba Ensemble (1)
- Primary Applied Music Course (3)
- Major Ensemble Course (1)<sup>1</sup>
- General Education course Humanities (3)
- General Education Course Arts (not MUS) (3)

#### Semester 6

- MUS 2054 Survey of Music History II (3)
- MUS 4222 Woodwind Chamber Music (1) or
- MUS 4223 Brass Chamber Music (1) or
- MUS 4226 Percussion Ensemble (1) or
- MUS 4227 Marimba Ensemble (1)
- General Education course Natural Sciences (3)
- Primary Applied Music Course (3)
- Major Ensemble Course (1)<sup>1</sup>
- General Education course Humanities (3)
- General Education course Social Sciences (3)

## **Total Semester Hours: 17**

## Semester 7

- MUS 4126 Woodwind Literature (1) and
- MUS 4173 Woodwind Instrument Pedagogy (1) <sup>3</sup> or
- MUS 4128 Brass Literature and Pedagogy (2) or
- MUS 4130 Percussion Literature and Pedagogy (2)
- MUS 4222 Woodwind Chamber Music (1) or
- MUS 4223 Brass Chamber Music (1) or
- MUS 4226 Percussion Ensemble (1) or
- MUS 4227 Marimba Ensemble (1)
- Primary Applied Music Course (3)
- Major Ensemble Course (1)<sup>1</sup>
- General Education course Humanities (3)

Choose **one** course from the following: (3)

- MUS 4710 Advanced Aural Skills (3)
- MUS 4712 Advanced Form and Analysis (3)
- MUS 4718 Styles and Practices of Beethoven and the Romantics (3)
- MUS 4720 Post-Tonal Styles and Practices (3)
- MUS 4725 Survey of Contrapuntal Techniques (3)

## **Total Semester Hours: 13**

## Semester 8

- MUS 4797 Senior Recital (1)
- MUS 4222 Woodwind Chamber Music (1) or
- MUS 4223 Brass Chamber Music (1) or
- MUS 4226 Percussion Ensemble (1) or
- MUS 4227 Marimba Ensemble (1)
- Primary Applied Music Course (2)
- Major Ensemble Course (1)<sup>1</sup>
- General Education course Social Sciences (3)
- Free Elective (1)
- MUS 4749 Seminar in Music History (3)

## Total Semester Hours: 12

## 120 Total Sem. Hrs.

<sup>1</sup> - Choose from the following: MUS 4250, MUS 4251, MUS 4252, MUS 4253 (maximum two credit hours), MUS 4254, or MUS 4261.

<sup>2</sup> - If credit has been earned in ENGL 1001 and/or MATH 1021/MATH 1029, General Education Course(s) should be taken in lieu of ENGL 1001 and/or MATH 1021/MATH 1029.

<sup>3</sup> - If choosing the Woodwind concentration, one must take MUS 4126 and MUS 4173.

## Composition

## **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better MUS 1705, primary applied music course; 2.0 Cumulative GPA. SEMESTER 2: MATH 1021 or MATH 1029, "C" or better in primary applied music course; 2.0 Cumulative GPA. SEMESTER 3: "C" or better in MUS 2620/MUS 2630, primary applied music course; 2.0 Cumulative GPA. SEMESTER 4: "C" or better in MUS 2622/MUS 2632, primary applied music course; 2.0 Cumulative GPA. SEMESTER 5: "C" or better in MUS 3620/MUS 3630,

## Semester 1

**CRITICAL:** "C" or better MUS 1705, primary applied music course; 2.0 Cumulative GPA.

• MUS 1500 Defining the Artist (1)

primary applied music course; 2.0 Cumulative GPA.

- MUS 1705 The Musician in Society (3)
- MUS 2620 Music Theory I (3) or
- MUS 2630 HONORS: Music Theory I (3)
- MUS 2621 Aural Skills I (1)
- MATH 1021 College Algebra (3) or
- MATH 1029 Introduction to Contemporary Mathematics (3) <sup>2</sup>
- Primary Applied Music Course (3)
- Major Ensemble Course (1)<sup>1</sup>

## **Total Semester Hours: 15**

## Semester 2

**CRITICAL:** MATH 1021 or MATH 1029, "C" or better in primary applied music course; 2.0 Cumulative GPA.

- ENGL 1001 English Composition (3)<sup>2</sup>
- MUS 2700 Intro to Music Technology (3)
- MUS 2622 Music Theory II (3) or
- MUS 2632 HONORS: Music Theory II (3)
- MUS 2623 Aural Skills II (1)
- Primary Applied Music Course (3)
- Secondary Applied Music Course (2)<sup>3</sup>
- Major Ensemble Course (1)<sup>1</sup>

#### **Total Semester Hours: 16**

## Semester 3

**CRITICAL:** "C" or better in MUS 2620/MUS 2630, primary applied music course; 2.0 Cumulative GPA.

- MUS 3500 Preparing the Artist (1)
- MUS 3620 Music Theory III (3) or
- MUS 3630 HONORS: Music Theory III (3)
- MUS 3621 Aural Skills III (1)
- Primary Applied Music Course (3)
- Major Ensemble Course (1)<sup>1</sup>
- General Education course Analytical Reasoning (3)<sup>2</sup>
- General Education course Natural Sciences (3)

## **Total Semester Hours: 15**

#### Semester 4

**CRITICAL:** "C" or better in MUS 2622/MUS 2632, primary applied music course; 2.0 Cumulative GPA.

- ENGL 2000 English Composition (3)
- MUS 3622 Music Theory IV (3) or
- MUS 3632 HONORS: Music Theory IV (3)
- MUS 3623 Aural Skills IV (1)
- Primary Applied Music Course (3)
- Major Ensemble Course (1)<sup>1</sup>
- General Education course Natural Sciences (3)
- MUS 1133 Group Piano IV (1 each)<sup>4</sup>

#### **Total Semester Hours: 15**

## Semester 5

**CRITICAL:** "C" or better in MUS 3620/MUS 3630, primary applied music course; 2.0 Cumulative GPA.

• MUS 2053 Survey of Music History I (3)

- MUS 3771 Instrumental Conducting I (2)
- Primary Applied Music Course (3)
- Major Ensemble Course (1)<sup>1</sup>
- General Education course Humanities (3)
- General Education course Social Sciences (3)

#### Semester 6

- MUS 4725 Survey of Contrapuntal Techniques (3)
- MUS 2054 Survey of Music History II (3)
- Primary Applied Music Course (3)
- Major Ensemble Course (1)<sup>1</sup>
- General Education course Natural Sciences (3)
- General Education course Humanities (3)

#### **Total Semester Hours: 16**

## Semester 7

- MUS 4745 Computer Music (3)
- Primary Applied Music Course (3)
- Major Ensemble Course (1)<sup>1</sup>
- General Education course Social Sciences (3)
- General Education course Humanities (3)
- General Education course Arts (not MUS) (3)

#### **Total Semester Hours: 16**

## Semester 8

- MUS 4730 Elementary Orchestration (3)
- MUS 4798 Senior Composition Recital (1)
- Primary Applied Music Course (2)<sup>4</sup>
- MUS 4749 Seminar in Music History (3)

Choose one course from the following:

- MUS 4710 Advanced Aural Skills (3) or
- MUS 4712 Advanced Form and Analysis (3) or
- MUS 4718 Styles and Practices of Beethoven and the Romantics (3) or
- MUS 4720 Post-Tonal Styles and Practices (3)

#### Total Semester Hours: 12

## 120 Total Sem. Hrs.

<sup>1</sup> - Choose from the following: MUS 4232, MUS 4233, MUS 4234, MUS 4235, MUS 4236, MUS 4251, MUS 4252, MUS 4253(maximum two credit hours), MUS 4254, or MUS 4261.

<sup>2</sup> - If credit has been earned in ENGL 1001 and/or MATH 1021/MATH 1029, General Education Course(s) should be taken in lieu of ENGL 1001 and/or MATH 1021/MATH 1029.

<sup>3</sup> - In the senior year, MUS 3153, Applied Electroacoustic, may be substituted for one semester of MUS 3151, Primary Composition.

<sup>4</sup> – Piano proficiency at the level of completion of MUS
 1133 required for Composition majors.

## Organ

## **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better MUS 1705, primary applied music course; 2.0 Cumulative GPA. SEMESTER 2: "C" or better in MATH 1021 or MATH 1029, primary applied music course; 2.0 Cumulative GPA. SEMESTER 3: "C" or better in MUS 2620/MUS 2630, primary applied music course; 2.0 Cumulative GPA. SEMESTER 4: "C" or better in MUS 2622/MUS 2632, primary applied music course; 2.0 Cumulative GPA. SEMESTER 5: "C" or better in MUS 3620/MUS 3630, primary applied music course; 2.0 Cumulative GPA.

## Semester 1

**CRITICAL:** "C" or better MUS 1705, primary applied music course; 2.0 Cumulative GPA.

- MUS 1500 Defining the Artist (1)
- MUS 1705 The Musician in Society (3)
- MUS 2620 Music Theory I (3) or
- MUS 2630 HONORS: Music Theory I (3)
- MUS 2131 Secondary Piano (2-3) or
- MUS 3131 Primary Piano (2-3)
- MATH 1021 College Algebra (3) or
- MATH 1029 Introduction to Contemporary Mathematics (3) <sup>1</sup>

- MUS 2621 Aural Skills I (1)
- Primary Applied Music Course (3)
- Major Ensemble Course (1)<sup>2</sup>

## Semester 2

**CRITICAL:** "C" or better in MATH 1021 or MATH 1029, primary applied music course; 2.0 Cumulative GPA.

- ENGL 1001 English Composition (3) <sup>1</sup>
- MUS 2622 Music Theory II (3) or
- MUS 2632 HONORS: Music Theory II (3)
- MUS 2131 Secondary Piano (2-3) or
- MUS 3131 Primary Piano (2-3)
- MUS 2623 Aural Skills II (1)
- MUS 2700 Intro to Music Technology (3)
- Primary Applied Music Course (3)
- Major Ensemble Course (1)<sup>2</sup>

## Total Semester Hours: 16

## Semester 3

**CRITICAL:** "C" or better in MUS 2620/MUS 2630, primary applied music course; 2.0 Cumulative GPA.

- MUS 3500 Preparing the Artist (1)
- MUS 3620 Music Theory III (3) or
- MUS 3630 HONORS: Music Theory III (3)
- MUS 3621 Aural Skills III (1)
- General Education Course Natural Sciences (3)
- General Education Course Analytical Reasoning (3)<sup>1</sup>
- Primary Applied Music Course (3)
- Major Ensemble Course (1)<sup>2</sup>

## Total Semester Hours: 15

## Semester 4

**CRITICAL:** "C" or better in MUS 2622/MUS 2632, primary applied music course; 2.0 Cumulative GPA.

- ENGL 2000 English Composition (3)
- MUS 3622 Music Theory IV (3) or
- MUS 3632 HONORS: Music Theory IV (3)
- MUS 3623 Aural Skills IV (1)
- General Education Course Natural Sciences (3)
- Primary Applied Music Course (3)
- Major Ensemble Course (1)<sup>2</sup>

## **Total Semester Hours: 14**

## Semester 5

**CRITICAL:** "C" or better in MUS 3620/MUS 3630, primary applied music course; 2.0 Cumulative GPA.

- MUS 2053 Survey of Music History I (3)
- MUS 3749 Choral Literature and Conducting I (1-2)
- MUS 3757 Organ Literature, History and Design (3)
- General Education Course Humanities (3)
- Primary Applied Music Course (3)
- Major Ensemble Course (1)<sup>2</sup>

## **Total Semester Hours: 15**

## Semester 6

- MUS 2054 Survey of Music History II (3)
- MUS 3758 Organ Literature, History and Design (3)
- General Education Course Humanities (3)
- General Education Course Natural Sciences (3)
- Primary Applied Music Course (3)
- Major Ensemble Course  $(1)^2$

## Total Semester Hours: 16

## Semester 7

- MUS 4701 Organ Practicum (2)
- General Education Course Social Sciences (3)
- General Education Course Humanities (3)
- Primary Applied Music Course (3)
- Major Ensemble Course (1)<sup>2</sup>

## Semester 8

- MUS 4702 Organ Practicum (2)
- MUS 4797 Senior Recital (1)
- General Education Course Social Sciences (3)
- General Education Course Arts (not MUS) (3)
- Primary Applied Music Course (2)
- Major Ensemble Course (1)<sup>2</sup>
- MUS 4749 Seminar in Music History (3)

## Total Semester Hours: 15

## 120 Total Sem. Hrs.

<sup>1</sup> - If credit has been earned in ENGL 1001 and/or MATH 1021/MATH 1029, General Education Course(s) should be taken in lieu of ENGL 1001 and/or MATH 1021/MATH 1029.

<sup>2</sup> - Choose from the following: MUS 4101, MUS 4220, MUS 4224, MUS 4232, MUS 4233, MUS 4234, MUS 4235, MUS 4236, MUS 4250, MUS 4251, MUS 4252, MUS 4253 (maximum two credit hours), MUS 4254, or MUS 4261.

## **Piano Pedagogy**

## **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in MUS 1705, primary applied music course; 2.0 Cumulative GPA. SEMESTER 2: "C" or better in MATH 1021 or MATH 1029, primary applied music course; 2.0 Cumulative GPA. SEMESTER 3: "C" or better in MUS 2620/MUS 2630, primary applied music course; 2.0 Cumulative GPA. SEMESTER 4: "C" or better in MUS 2622/MUS 2632, primary applied music course; 2.0 Cumulative GPA. SEMESTER 5: "C" or better in MUS 3620/MUS 3630, primary applied music course; 2.0 Cumulative GPA.

## Semester 1

**CRITICAL:** "C" or better MUS 1705, primary applied music course; 2.0 Cumulative GPA.

- MUS 1500 Defining the Artist (1)
- MUS 1705 The Musician in Society (3)
- ENGL 1001 English Composition (3)<sup>1</sup>
- MUS 2620 Music Theory I (3) or
- MUS 2630 HONORS: Music Theory I (3)
- MATH 1021 College Algebra (3) or
- MATH 1029 Introduction to Contemporary Mathematics (3) <sup>1</sup>
- MUS 2621 Aural Skills I (1)
- Primary Applied Music Course (3)

## Total Semester Hours: 17

## Semester 2

**CRITICAL:** "C" or better in MATH 1021 or MATH 1029, primary applied music course; 2.0 Cumulative GPA.

- MUS 2622 Music Theory II (3) or
- MUS 2632 HONORS: Music Theory II (3)
- MUS 2623 Aural Skills II (1)
- Primary Applied Music Course (3)
- General Education course Analytical Reasoning (3)
- MUS 2700 Intro to Music Technology (3)
- General Education course Humanities (3)

## **Total Semester Hours: 16**

## Semester 3

**CRITICAL:** "C" or better in MUS 2620/MUS 2630, primary applied music course; 2.0 Cumulative GPA.

- MUS 3500 Preparing the Artist (1)
- MUS 3620 Music Theory III (3) or
- MUS 3630 HONORS: Music Theory III (3)

- MUS 3621 Aural Skills III (1)
- Primary Applied Music Course (3)
- Major Ensemble Course (1)<sup>2</sup>
- General Education course Humanities (3)
- General Education course Natural Sciences (3)

## Semester 4

**CRITICAL:** "C" or better in MUS 2622/MUS 2632, primary applied music course; 2.0 Cumulative GPA.

- ENGL 2000 English Composition (3)
- MUS 3622 Music Theory IV (3) or
- MUS 3632 HONORS: Music Theory IV (3)
- MUS 3623 Aural Skills IV (1)
- Primary Applied Music Course (3)
- General Education course Natural Sciences (3)

## Total Semester Hours: 13

## Semester 5

**CRITICAL:** "C" or better in MUS 3620/MUS 3630, primary applied music course; 2.0 Cumulative GPA.

- MUS 2053 Survey of Music History I (3)
- MUS 4757 Piano Literature I (3) <sup>3</sup>
- MUS 3997 Directed Studies in Music (1-3) (approved pedagogical topic)
- Primary Applied Music Course (3)
- General Education course Humanities (3)

## **Total Semester Hours: 14**

## Semester 6

- MUS 2054 Survey of Music History II (3)
- MUS 4758 Piano Literature II (3) <sup>3</sup>
- Primary Applied Music Course (3)
- Major Ensemble Course (1)<sup>2</sup>
- General Education course Natural Sciences (3)

• General Education course - Social Sciences (3)

## Total Semester Hours: 16

## Semester 7

- MUS 4763 Piano Methods and Materials (3) <sup>3</sup>
- MUS 4769 Supervised Studio Instruction (2)
- Primary Applied Music Course (3)
- Major Ensemble Course (1)<sup>2</sup>
- General Education course Social Sciences (3)
- MUS 3997 Directed Studies in Music (1-3) (approved pedagogical topic)

## **Total Semester Hours: 14**

## Semester 8

- MUS 4764 Piano Methods and Materials (3) <sup>3</sup>
- MUS 4770 Supervised Studio Instruction (2)
- MUS 4749 Seminar in Music History (3)
- Elective in MUS 3997 Directed Studies in Music (1-3)
- Primary Applied Music Course (2)
- General Education Course Arts (not MUS) (3)
- MUS 4797 Senior Recital (1) or
- MUS 4501 Senior Project (1)

## Total Semester Hours: 15

## 120 Total Sem. Hrs.

*Other Requirements*: Solo performances on at least two student recital hour programs or their equivalent during the period of undergraduate study. The senior recital may be a joint recital.

*Electives*: May not choose from MUS 1010, 1100-level, MUS 1751, or MUS 1799.

<sup>1</sup> - If credit has been earned in ENGL 1001 and/or MATH 1021/MATH 1029, General Education Course(s) should be taken in lieu of ENGL 1001 and/or MATH 1021/MATH 1029.

<sup>2</sup> - MUS 4101, MUS 4220, and MUS 4224 may be used to satisfy four hours of the major ensemble requirement.

<sup>3</sup> - MUS 4757, MUS 4758 & MUS 4763, MUS 4764 are offered in alternating years; please consult the department for course availability.

## **Piano Performance**

## **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better MUS 1705, primary applied music course; 2.0 Cumulative GPA. SEMESTER 2: MATH 1021 or MATH 1029, "C" or better in primary applied music course; 2.0 Cumulative GPA. SEMESTER 3: "C" or better in MUS 2620/MUS 2630, primary applied music course; 2.0 Cumulative GPA. SEMESTER 4: "C" or better in MUS 2622/MUS 2632, primary applied music course; 2.0 Cumulative GPA. SEMESTER 5: "C" or better in MUS 3620/MUS 3630, primary applied music course; 2.0 Cumulative GPA.

## Semester 1

**CRITICAL:** "C" or better MUS 1705, primary applied music course; 2.0 Cumulative GPA.

- MUS 1500 Defining the Artist (1)
- MUS 1705 The Musician in Society (3)
- ENGL 1001 English Composition (3) <sup>1</sup>
- MUS 2620 Music Theory I (3) or
- MUS 2630 HONORS: Music Theory I (3)
- MATH 1021 College Algebra (3) or
- MATH 1029 Introduction to Contemporary Mathematics (3) <sup>1</sup>
- MUS 2621 Aural Skills I (1)
- Primary Applied Music Course (3)

## Total Semester Hours: 17

## Semester 2

**CRITICAL:** MATH 1021 or MATH 1029, "C" or better in primary applied music course; 2.0 Cumulative GPA.

• MUS 2622 Music Theory II (3) or

- MUS 2632 HONORS: Music Theory II (3)
- MUS 2623 Aural Skills II (1)
- Primary Applied Music Course (3)
- MUS 2700 Intro to Music Technology (3)
- General Education course Natural Sciences (3)
- General Education course Anlaytical Reasoning (3)<sup>1</sup>

#### **Total Semester Hours: 16**

## Semester 3

**CRITICAL:** "C" or better in MUS 2620/MUS 2630, primary applied music course; 2.0 Cumulative GPA.

- MUS 3500 Preparing the Artist (1)
- MUS 3620 Music Theory III (3) or
- MUS 3630 HONORS: Music Theory III (3)
- MUS 3621 Aural Skills III (1)
- Primary Applied Music Course (3)
- Major Ensemble Course (1)<sup>2</sup>
- General Education course Humanities (3)
- General Education course Natural Sciences (3)

## **Total Semester Hours: 15**

## Semester 4

**CRITICAL:** "C" or better in MUS 2622/MUS 2632, primary applied music course; 2.0 Cumulative GPA.

- ENGL 2000 English Composition (3)
- MUS 3622 Music Theory IV (3) or
- MUS 3632 HONORS: Music Theory IV (3)
- MUS 3623 Aural Skills IV (1)
- Primary Applied Music Course (3)
- Major Ensemble Course (1)<sup>2</sup>
- General Education course Natural Sciences (3)
- General Education Course Arts (not MUS) (3)

## Total Semester Hours: 17

## Semester 5

**CRITICAL:** "C" or better in MUS 3620/MUS 3630, primary applied music course; 2.0 Cumulative GPA.

- MUS 2053 Survey of Music History I (3)
- MUS 4757 Piano Literature I (3) <sup>3</sup>
- MUS 3749 Choral Literature and Conducting I (1-2) or
- MUS 3771 Instrumental Conducting I (2)
- Primary Applied Music Course (3)
- General Education course Humanities (3)

## Total Semester Hours: 14

## Semester 6

- MUS 2054 Survey of Music History II (3)
- MUS 4758 Piano Literature II (3) <sup>3</sup>
- Primary Applied Music Course (3)
- General Education course Humanities (3)

## Total Semester Hours: 12

## Semester 7

- MUS 4763 Piano Methods and Materials (3) <sup>3</sup>
- Primary Applied Music Course (3)
- Major Ensemble Course (1)
- General Education course Social Sciences (3)
- Approved Elective (2)

Choose **one** course from the following: (3)

- MUS 4710 Advanced Aural Skills (3)
- MUS 4712 Advanced Form and Analysis (3)
- MUS 4718 Styles and Practices of Beethoven and the Romantics (3)
- MUS 4720 Post-Tonal Styles and Practices (3)
- MUS 4725 Survey of Contrapuntal Techniques (3)

## Total Semester Hours: 15

Semester 8

- MUS 4764 Piano Methods and Materials (3)
- MUS 4749 Seminar in Music History (3)
- MUS 4797 Senior Recital (1)
- Primary Applied Music Course (2)
- General Education course Social Sciences (3)
- Approved Elective (2)

## Total Semester Hours: 14

## 120 Total Sem. Hrs.

<sup>1</sup> - If credit has been earned in ENGL 1001 and/or MATH 1021/MATH 1029, General Education Course(s) should be taken in lieu of ENGL 1001 and/or MATH 1021/MATH 1029.

<sup>2</sup> - Choose from the following: MUS 4101, MUS 4220, MUS 4224, MUS 4232, MUS 4233, MUS 4234, MUS 4235, MUS 4236, MUS 4251, MUS 4252, MUS 4253 (maximum two credit hours), MUS 4254, or MUS 4261. (MUS 4220, MUS 4224, and/or MUS 4101 may be used to satisfy four hours of the major ensemble requirement.) **Two semesters of MUS 4101 are required.** 

<sup>3</sup> - MUS 4757, MUS 4758, MUS 4763, & MUS 4764 are offered in alternating years; please consult the department for course availability.

## Strings

## **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in MUS 1705, primary applied music course; 2.0 Cumulative GPA. SEMESTER 2: MATH 1021 or MATH 1029, "C" or better in primary applied music course; 2.0 Cumulative GPA. SEMESTER 3: "C" or better in MUS 2620/MUS 2630, primary applied music course; 2.0 Cumulative GPA. SEMESTER 4: "C" or better in MUS 2622/MUS 2632, primary applied music course; 2.0 Cumulative GPA. SEMESTER 5: "C" or better in MUS 3620/MUS 3630, primary applied music course; 2.0 Cumulative GPA.

## Semester 1

**CRITICAL:** "C" or better MUS 1705, primary applied music course; 2.0 Cumulative GPA.

- MUS 1500 Defining the Artist (1)
- MUS 1705 The Musician in Society (3)

- MUS 2620 Music Theory I (3) or
- MUS 2630 HONORS: Music Theory I (3)
- MATH 1021 College Algebra (3) or
- MATH 1029 Introduction to Contemporary Mathematics (3) <sup>1</sup>
- MUS 2621 Aural Skills I (1)
- MUS 1130 Group Piano I (1 each)
- Primary Applied Music Course (3)
- Major Ensemble Course (1)<sup>2</sup>

## Semester 2

**CRITICAL:** MATH 1021 or MATH 1029, "C" or better in primary applied music course; 2.0 Cumulative GPA.

- MUS 1131 Group Piano II (1 each)
- ENGL 1001 English Composition (3) <sup>1</sup>
- MUS 2622 Music Theory II (3) or
- MUS 2632 HONORS: Music Theory II (3)
- MUS 2623 Aural Skills II (1)
- MUS 2700 Intro to Music Technology (3)
- Primary Applied Music Course (3)
- Major Ensemble Course (1)<sup>2</sup>

## Total Semester Hours: 15

## Semester 3

**CRITICAL:** "C" or better in MUS 2620/MUS 2630, primary applied music course; 2.0 Cumulative GPA.

- MUS 1132 Group Piano III (1 each)
- MUS 3500 Preparing the Artist (1)
- MUS 3620 Music Theory III (3) or
- MUS 3630 HONORS: Music Theory III (3)
- MUS 3621 Aural Skills III (1)
- Primary Applied Music Course (3)
- Major Ensemble Course (1)<sup>2</sup>

- General Education course Analytical Reasoning (3)<sup>1</sup>
- General Education course Natural Sciences (3)

## **Total Semester Hours: 16**

## Semester 4

**CRITICAL:** "C" or better in MUS 2622/MUS 2632, primary applied music course; 2.0 Cumulative GPA.

- MUS 1133 Group Piano IV (1 each)
- ENGL 2000 English Composition (3)
- MUS 3622 Music Theory IV (3) or
- MUS 3632 HONORS: Music Theory IV (3)
- MUS 3623 Aural Skills IV (1)
- Primary Applied Music Course (3)
- Major Ensemble Course (1)<sup>2</sup>
- General Education course Natural Sciences (3)

## **Total Semester Hours: 15**

## Semester 5

**CRITICAL:** "C" or better in MUS 3620/MUS 3630, primary applied music course; 2.0 Cumulative GPA.

- MUS 2053 Survey of Music History I (3)
- MUS 3771 Instrumental Conducting I (2)
- MUS 4224 String (or Piano and Strings) Chamber Music (1)
- Primary Applied Music Course (3)
- General Education course Humanities (3)
- Major Ensemble Course (1)<sup>2</sup>

## **Total Semester Hours: 13**

## Semester 6

- MUS 2054 Survey of Music History II (3)
- MUS 4224 String (or Piano and Strings) Chamber Music (1)
- Primary Applied Music Course (3)
- Major Ensemble Course (1)<sup>2</sup>

- General Education course Humanities (3)
- General Education course Natural Sciences (3)
- MUS 4774 Harp Pedagogy (2) <sup>3</sup> or
- Approved Elective (2)

## Semester 7

- MUS 4124 String Literature (1) or
- MUS 4773 Orchestral Repertoire for Harp (1)
- MUS 4224 String (or Piano and Strings) Chamber Music (1)
- Primary Applied Music Course (3)
- Major Ensemble Course (1)<sup>2</sup>
- General Education course -Social Sciences (3)
- General Education course Humanities (3)

Choose **one** course from the following: (3)

- MUS 4710 Advanced Aural Skills (3)
- MUS 4712 Advanced Form and Analysis (3)
- MUS 4718 Styles and Practices of Beethoven and the Romantics (3)
- MUS 4720 Post-Tonal Styles and Practices (3)
- MUS 4725 Survey of Contrapuntal Techniques
   (3)

## Total Semester Hours: 15

## Semester 8

- MUS 4224 String (or Piano and Strings) Chamber Music (1)
- MUS 4797 Senior Recital (1)
- Primary Applied Music Course (2)
- Major Ensemble Course (1)<sup>2</sup>
- General Education course Social Sciences (3)
- General Education Course Arts (not MUS) (3)
- MUS 4749 Seminar in Music History (3)

## Total Semester Hours: 14

## 120 Total Sem. Hrs.

<sup>1</sup> - If credit has been earned in ENGL 1001 and/or MATH 1021/MATH 1029, General Education Course(s) should be

taken in lieu of ENGL 1001 and/or MATH 1021/MATH 1029.

<sup>2</sup> - Choose from the following: MUS 4251, MUS 4252, MUS 4253 (maximum two credit hours), MUS 4254, or MUS 4261.

<sup>3</sup> - Approved electives: a minimum of 8 hours chosen from MUS 2131, MUS 3131, MUS 3997, MUS 4215, MUS 4253, MUS 4260, MUS 4759, MUED 3171, and any 4000level course in music history or theory other than those applied to degree requirements and any foreign language courses. Harp students should take MUS 4774 in lieu of electives.

## Voice

## **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better MUS 1705, primary applied music course; 2.0 Cumulative GPA. SEMESTER 2: MATH 1021/MATH 1029, "C" or better in primary applied music course; 2.0 Cumulative GPA. SEMESTER 3: "C" or better in MUS 2620/ MUS 2630, primary applied music course; 2.0 Cumulative GPA. SEMESTER 4: "C" or better in MUS 2622/MUS 2632, primary applied music course; 2.0 Cumulative GPA. SEMESTER 5: "C" or better in MUS 3620/MUS 3630, primary applied music course; 2.0 Cumulative GPA.

## Semester 1

**CRITICAL:** "C" or better MUS 1705, primary applied music course; 2.0 Cumulative GPA.

- MUS 1500 Defining the Artist (1)
- MUS 1705 The Musician in Society (3)
- MUS 2620 Music Theory I (3) or
- MUS 2630 HONORS: Music Theory I (3)
- MUS 2621 Aural Skills I (1)
- MUS 1018 Diction for Singers I (1)
- MUS 1130 Group Piano I (1 each)
- MATH 1021 College Algebra (3) or
- MATH 1029 Introduction to Contemporary Mathematics (3) <sup>1</sup>
- Primary Applied Music Course (3)
- Major Ensemble Course (1)<sup>2</sup>

## Semester 2

**CRITICAL:** MATH 1021 or MATH 1029, "C" or better in primary applied music course; 2.0 Cumulative GPA.

- MUS 1019 Diction for Singers II (1)
- MUS 1131 Group Piano II (1 each)
- ENGL 1001 English Composition (3) <sup>1</sup>
- MUS 2622 Music Theory II (3) or
- MUS 2632 HONORS: Music Theory II (3)
- MUS 2623 Aural Skills II (1)
- Primary Applied Music Course (3)
- Major Ensemble Course (1)<sup>2</sup>
- MUS 2700 Intro to Music Technology (3)

## **Total Semester Hours: 16**

## Semester 3

**CRITICAL:** "C" or better in MUS 2620/MUS 2630, primary applied music course; 2.0 Cumulative GPA.

- MUS 3500 Preparing the Artist (1)
- MUS 1132 Group Piano III (1 each)
- MUS 3620 Music Theory III (3) or
- MUS 3630 HONORS: Music Theory III (3)
- MUS 3621 Aural Skills III (1)
- Primary Applied Music Course (3)
- Major Ensemble Course (1)<sup>2</sup>
- General Education course Analytical Reasoning (3)<sup>1</sup>
- General Education course Natural Sciences (3)

## Total Semester Hours: 16

## Semester 4

**CRITICAL:** "C" or better in MUS 2622/MUS 2632, primary applied music course; 2.0 Cumulative GPA.

- MUS 1020 Performance Craft for Singers (1)
- MUS 1133 Group Piano IV (1 each)
- ENGL 2000 English Composition (3)
- MUS 3622 Music Theory IV (3) or
- MUS 3632 HONORS: Music Theory IV (3)
- MUS 3623 Aural Skills IV (1)
- Primary Applied Music Course (3)
- Major Ensemble Course (1)<sup>2</sup>
- General Education course Natural Sciences (3)

## **Total Semester Hours: 16**

## Semester 5

**CRITICAL:** "C" or better in MUS 3620/MUS 3630, primary applied music course; 2.0 Cumulative GPA.

- MUS 2053 Survey of Music History I (3)
- MUS 3018 Vocal Pedagogy (2)
- MUS 3749 Choral Literature and Conducting I (1-2)
- Primary Applied Music Course (3)
- Major Ensemble Course (1)<sup>2</sup>
- General Education Course Humanities (Approved Foreign Language Course) (3)<sup>3</sup>

## **Total Semester Hours: 13**

## Semester 6

- MUS 2054 Survey of Music History II (3)
- MUS 4240 Opera Chorus (1)
- Primary Applied Music Course (3)
- Major Ensemble Course (1)<sup>2</sup>
- General Education Course Humanities (Approved Foreign Language Course) (3)<sup>3</sup>
- General Education Course Arts (not MUS) (3)
- General Education Course Social Sciences (3)

## Total Semester Hours: 17

## Semester 7

• MUS 4240 Opera Chorus (1)

- MUS 4351 Song Literature (2) <sup>5</sup>
- Primary Applied Music Course (3)
- Major Ensemble Course (1)<sup>2</sup>
- General Education course Social Sciences (3)
- General Education course Natural Sciences (3)

## Semester 8

- MUS 4749 Seminar in Music History (3)
- MUS 4797 Senior Recital (1)
- Primary Applied Music Course (2)
- Major Ensemble Course (1)<sup>2</sup>
- General Education course Humanities (3)
- Approved Electives (2)<sup>4</sup>

## **Total Semester Hours: 12**

## 120 Total Sem. Hrs.

<sup>1</sup> - If credit has been earned in ENGL 1001 and/or MATH 1021/MATH 1029, General Education Course(s) should be taken in lieu of ENGL 1001 and/or MATH 1021/MATH 1029.

<sup>2</sup> - Choose from the following: MUS 4232, MUS 4233, MUS 4234, MUS 4235, MUS 4236.

<sup>3</sup> - French, German or Italian.

<sup>4</sup> - Choose from: MUS 3750, MUS 3997, or MUS 4241.

<sup>5</sup> - MUS 4351 is offered in alternating years. Please consult course offerings and/or the department for course availability.

## **School of Theatre**

105 Music & Dramatic Arts Bldg
225-578-4174
225-578-4135
www.lsu.edu/cmda/theatre

On the eve of our 85<sup>th</sup> season, the LSU School of Theatre continues to achieve national and international prominence in professional training, scholarship, and production. With Swine Palace, the department has distinguished itself as one of the few programs in the country that supports a full-time, year-round Equity company. While pursuing their degrees, students have the opportunity to work alongside world-class artists in every facet of production. In addition to working with Swine Place, our students support Louisiana's burgeoning film industry. Many students are Actors' Equity Association (AEA) eligible by the time they graduate. Our NAST-accredited BA degree programs (concentrations in arts administration, design-technology, film/tv, performance, physical theatre, and theatre studies) provide rigorous comprehensive training within the framework of a liberal arts education. The School of Theatre is a member of the University Resident Theatre Association, the nation's oldest and largest consortium of professional, graduate (MFA) theatre training programs and partnered professional theatre companies.

## **Arts Administration Minor**

In order to graduate with a minor in *arts administration*, students must complete: THTR 3320, THTR 3340, THTR 4320, THTR 4350 and THTR 4300 (taken twice).

## **Dance Minor**

To graduate with a minor in dance, students must complete at least 18 hours of dance courses as follows:

- core (9 hours): THTR 1800, THTR 3802 or THTR 3803, THTR 4801;
- technique (6 hours): THTR 1127, THTR 1131, THTR 1153, THTR 1227, THTR 1231, THTR 1253 (courses may be taken twice for credit, two technique courses must be at intermediate level); and
- electives (3 hours): THTR 1029, THTR 1804, THTR 4804.

## **Physical Theatre Minor**

In order to graduate with a *minor in physical theatre*, students must complete at least 18 hours of theatre classes as follows:

- core (6 hours): THTR 1029, THTR 3029, THTR 3032, THTR 3803
- technique (6 hours): THTR 1127, THTR 1131, THTR 1153, THTR 1227, THTR 1231, THTR 1253, THTR 2031, THTR 4031
- electives (6 hours): THTR 2025, THTR 2032, THTR 3800, THTR 3802, THTR 4029, THTR 4032, THTR 4033

## **Theatre Minor**

In order to graduate with a *minor in theatre*, students must complete at least 19 hours of theatre courses as follows:

- Theatre core–THTR 1025, THTR 2022, THTR 2026, THTR 2130; and
- Theatre electives-at least nine additional hours of theatre at an advanced (3000/4000) level.

### Theatre, B.A.

# Areas of Concentration

## Arts Administration

Additional departmental requirement: For all major courses in the theatre core and concentration a grade of C or better is required.

### **CRITICAL REQUIREMENTS**

SEMESTER 1: MATH 1021; 2.0 Cumulative GPA. SEMESTER 2: THTR 1025; 2.0 Cumulative GPA. SEMESTER 3: THTR 2130; 2.0 Cumulative GPA. SEMESTER 4: ACCT 2000; 2.0 Cumulative GPA. SEMESTER 5: ENGL 2000; 2.0 Cumulative GPA.

### Semester 1

Critical: MATH 1021; 2.0 Cumulative GPA.

- THTR 1001 Practical Elements of Stagecraft (3)
- THTR 1025 Acting I: Introduction to Acting (3)
- THTR 2026 Theatre Practicum I (1)
- THTR 2130 Script Analysis (3)
- MATH 1021 College Algebra (3)
- THTR 1010 Apprentice Seminar (1)
- General Education course Humanities (3)

### **Total Semester Hours: 17**

### Semester 2

Critical: THTR 1025; 2.0 Cumulative GPA.

- THTR 2022 Introduction to Theatrical Design (3)
- THTR 2026 Theatre Practicum I (1)
- THTR 2021 Directing I (3)
- ENGL 1001 English Composition (3)
- General Education course Analytical Reasoning (3)
- General Education course Humanities (3)

### Total Semester Hours: 16

### Semester 3

#### Critical: THTR 2130; 2.0 Cumulative GPA.

- ACCT 2000 Survey of Accounting (3)
- THTR 3320 Introduction to Arts Management (3)
- THTR Technology Elective (3)<sup>2</sup>
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Social Sciences (3)

### **Total Semester Hours: 15**

### Semester 4

#### Critical: ACCT 2000; 2.0 Cumulative GPA.

- THTR 2026 Theatre Practicum I (1)
- ENGL 2000 English Composition (3)
- ECON 2030 Economic Principles (3)
- THTR 3340 Arts Marketing (3)
- THTR Design or Technology Course (3)<sup>3</sup>
- General Education course Natural Sciences (3)<sup>1</sup>

### **Total Semester Hours: 16**

### Semester 5

#### Critical: ENGL 2000; 2.0 Cumulative GPA.

- THTR 3120 Theatre History and Literature I: Ancient Greece through Renaissance (3)
- THTR 4350 Fundraising for the Arts (3)
- MKT 3401 Principles of Marketing (3)
- THTR 4300 Special Topics in Arts Administration (3)
- Approved Electives (3)<sup>4</sup>

### **Total Semester Hours: 15**

### Semester 6

- THTR 2010 Journeyman Seminar (1)
- THTR 3121 Theatre History and Literature II: Renaissance through Nineteenth Century (3)
- THTR 3122 Theatre History and Literature III: 1875 to the Present (3)
- THTR 4136 Theatre Practicum II (1)
- THTR 4300 Special Topics in Arts Administration (3)
- THTR 4320 Advanced Arts Management (3)

### Semester 7

- THTR 4136 Theatre Practicum II (1)
- THTR Literature Course (3)<sup>5</sup>
- Approved Electives (7)<sup>4</sup>
- General Education course Natural Sciences (3)<sup>1</sup>

### Total Semester Hours: 14

### Semester 8

- THTR 4010 Master Seminar (1)
- General Education course Arts (3)<sup>6</sup>
- General Education course Humanities (3)
- Approved Electives (6)<sup>4</sup>

### **Total Semester Hours: 13**

### 120 Total Sem. Hrs.

<sup>1</sup> - If the two course sequence is taken in the physical sciences, the additional three hour course must be taken from the life sciences, and vice versa.

<sup>2</sup> - Select from: THTR 2020, THTR 2023, THTR
2024, THTR 2830, THTR 3123, THTR 3125, THTR 3126, THTR 3134, THTR 3435, THTR 3530, THTR
3531, THTR 4820, THTR 4831, THTR 4832, or THTR 4902.

<sup>3</sup> - Select from: THTR 2020, THTR 2023, THTR
2024, THTR 2830, THTR 3123, THTR 3124, THTR
3125, THTR 3126, THTR 3134, THTR 3435, THTR 3530, THTR 3531, THTR 4023, THTR 4123, THTR
4124, THTR 4126, THTR 4128, THTR 4132, THTR
4134, THTR 4435, THTR 4530, THTR 4531, THTR
4540, THTR 4541, THTR 4820, THTR 4831, THTR
4832, THTR 4901, or THTR 4902.

<sup>4</sup> - Not THTR 1020, THTR 1021, THTR 2028, or THTR 2128.

<sup>5</sup> - Select from: THTR 4021, THTR 4130, THTR 4131, THTR 4220, or THTR 4436.

<sup>6</sup>- Theatre (THTR) General Education courses can not be used to fulfill this requirement.

# Design/Technology

Additional departmental requirement: For all major courses in the theatre core and concentration a grade of C or better is required.

### **CRITICAL REQUIREMENTS**

SEMESTER 1: THTR 1025; 2.0 Cumulative GPA. SEMESTER 2: MATH 1021/MATH 1029; THTR 1001; 2.0 Cumulative GPA. SEMESTER 3: ENGL 1001; 2.0 Cumulative GPA. SEMESTER 4: THTR Tech Course or THTR Design Course; THTR 2130; 2.0 Cumulative GPA. SEMESTER 5: 2.0 Cumulative GPA.

### Semester 1

#### Critical: THTR 1025; 2.0 Cumulative GPA.

- THTR 1001 Practical Elements of Stagecraft (3)
- THTR 1010 Apprentice Seminar (1)
- THTR 1025 Acting I: Introduction to Acting (3)
- THTR 2026 Theatre Practicum I (1)
- ENGL 1001 English Composition (3)
- MATH 1021 College Algebra (3) or
- MATH 1029 Introduction to Contemporary Mathematics (3)
- General Education course Humanities (3)

### **Total Semester Hours: 17**

### Semester 2

**Critical:** MATH 1021/MATH 1029; THTR 1001; 2.0 Cumulative GPA.

- THTR 2022 Introduction to Theatrical Design (3)
- THTR 2026 Theatre Practicum I (1)
- THTR 2130 Script Analysis (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Humanities (3)

**Total Semester Hours: 13** 

### Semester 3

Critical: ENGL 1001; 2.0 Cumulative GPA.

- THTR 2001 Portfolio Preparation for the Theatre (3)
- THTR 2830 Technical Drafting for the Theatre (3) or
- THTR 3126 Theatrical Rendering (3)
- THTR Technology Elective (core)  $(3)^2$
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Social Sciences (3)

### Total Semester Hours: 15

### Semester 4

**Critical:** THTR Tech Course or THTR Design Course; THTR 2130; 2.0 Cumulative GPA.

- THTR 3120 Theatre History and Literature I: Ancient Greece through Renaissance (3)
- THTR 2026 Theatre Practicum I (1)
- ENGL 2000 English Composition (3)
- THTR Design or Tech Course (Core)  $(3)^3$
- General Education course Analytical Reasoning (3)
- General Education course Natural Sciences (3)<sup>1</sup>

### Total Semester Hours: 16

### Semester 5

Critical: 2.0 Cumulative GPA.

- THTR 2010 Journeyman Seminar (1)
- THTR 3121 Theatre History and Literature II: Renaissance through Nineteenth Century (3)
- THTR 2021 Directing I (3)
- THTR Design/Tech Course (Concentration) (3)<sup>3</sup>
- THTR Tech Course (Concentration) (3)<sup>2</sup>
- Approved Electives (3)<sup>5</sup>

### Total Semester Hours: 16

Semester 6

- THTR 3122 Theatre History and Literature III: 1875 to the Present (3)
- THTR 4136 Theatre Practicum II (1)
- THTR Design Course (Concentration) (3)<sup>4</sup>
- THTR Tech Course (Concentration)  $(3)^2$
- General Education course Humanities (3)
- Approved Electives (3)<sup>5</sup>

### **Total Semester Hours: 16**

### Semester 7

- THTR 4136 Theatre Practicum II (1)
- THTR Literature Course (3)<sup>6</sup>
- THTR Design Course (Concentration) (3)<sup>4</sup>
- General Education course Social Sciences (3)
- Approved Electives (4)<sup>6</sup>

### **Total Semester Hours: 14**

### Semester 8

- THTR 4010 Master Seminar (1)
- THTR Design/Tech Course (Concentration) (3)<sup>3</sup>
- General Education course Arts (3)<sup>7</sup>
- Approved Electives (6)<sup>5</sup>

### Total Semester Hours: 13

### 120 Total Sem. Hrs.

<sup>1</sup> - If two course sequence is taken in the physical sciences, the additional three hour course must be taken from the life sciences, and vice versa.

<sup>2</sup> - Select from: THTR 2020, THTR 2023, THTR 2830, THTR 3123, THTR 3126, THTR 3134, THTR 3435, THTR 3530, OR THTR 3531.

 <sup>3</sup> - Select from: THTR 2020, THTR 2023, THTR 2830, THTR 3123, THTR 3126, THTR 3134, THTR 3435, THTR 3530,THTR 3531, THTR 4123, THTR 4124, THTR 4530, or THTR 4531.

<sup>4</sup> - Select from THTR 4123, THTR 4124, THTR 4530, or THTR 4531

<sup>5</sup> - Select from: THTR 3124, THTR 4023, THTR 4126, THTR 4128, THTR 4132, THTR 4134, THTR 4435,

THTR 4436, THTR 4540, THTR 4541, THTR 4820, THTR 4831, THTR 4832, THTR 4901, or THTR 4902.

<sup>6</sup>- Not THTR 1020, THTR 1021, THTR 2028, or THTR 2128.

<sup>7</sup> - THTR LITERATURE COURSE: Select from: THTR
4021, THTR 4130, THTR 4131, THTR 4220, or THTR
4436.

### Film and Television

Additional departmental requirement: For all major courses in the theatre core and concentration a grade of C or better is required.

### **CRITICAL REQUIREMENTS**

SEMESTER 1: THTR 1025; 2.0 Cumulative GPA. SEMESTER 2: MATH 1021/MATH 1029; THTR 1001; 2.0 Cumulative GPA. SEMESTER 3: ENGL 1001; 2.0 Cumulative GPA. SEMESTER 4: THTR 2130; 2.0 Cumulative GPA. SEMESTER 5: 2.0 Cumulative GPA.

### Semester 1

Critical: THTR 1025; 2.0 Cumulative GPA.

- THTR 1001 Practical Elements of Stagecraft (3)
- THTR 1010 Apprentice Seminar (1)
- THTR 1025 Acting I: Introduction to Acting (3)
- THTR 2026 Theatre Practicum I (1)
- THTR 2130 Script Analysis (3)
- MATH 1021 College Algebra (3) or
- MATH 1029 Introduction to Contemporary Mathematics (3)
- General Education course Humanities (3)

### **Total Semester Hours: 17**

### Semester 2

**Critical:** MATH 1021/MATH 1029; THTR 1001; 2.0 Cumulative GPA.

- THTR 2022 Introduction to Theatrical Design (3)
- THTR 2026 Theatre Practicum I (1)

- THTR 2025 Acting II: Fundamentals of Acting (3)
- ENGL 1001 English Composition (3)
- General Education course Humanities (3)

#### **Total Semester Hours: 13**

### Semester 3

Critical: ENGL 1001; 2.0 Cumulative GPA.

- THTR 2021 Directing I (3)
- THTR Technology Elective (3)<sup>5</sup>
- THTR 2024 Live Entertainment Technology (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Social Sciences (3)

#### **Total Semester Hours: 15**

### Semester 4

Critical: THTR 2130; 2.0 Cumulative GPA.

- THTR 2026 Theatre Practicum I (1)
- THTR Design Course or THTR Tech Course (3)<sup>6</sup>
- THTR 1701 Introduction to Entertainment Industries (3)
- Approved Electives (3)
- General Education course Analytical Reasoning (3)
- General Education course Natural Sciences (3)<sup>1</sup>

### **Total Semester Hours: 16**

### Semester 5

#### Critical: 2.0 Cumulative GPA.

- THTR 2010 Journeyman Seminar (1)
- THTR 3120 Theatre History and Literature I: Ancient Greece through Renaissance (3)
- CMST 3012 History of Film (4)
- THTR 2735 Film and New Media Production I (3)
- General Education course Humanities (3)
- Approved Elective (3)<sup>3</sup>

### Total Semester Hours: 17

### Semester 6

- THTR 3026 Introduction to Acting for the Camera (3)
- THTR 3121 Theatre History and Literature II: Renaissance through Nineteenth Century (3)
- THTR 3122 Theatre History and Literature III: 1875 to the Present (3)
- THTR 4136 Theatre Practicum II (1)
- THTR 3735 Film and New Media Production II (3)
- General Education course Natural Sciences (3)<sup>1</sup>

### Total Semester Hours: 16

### Semester 7

- THTR 4136 Theatre Practicum II (1)
- ENGL 2000 English Composition (3)
- General Education course Social Sciences (3)
- THTR Literature Course (3)<sup>4</sup>
- Approved Elective (3)<sup>3</sup>

### **Total Semester Hours: 13**

### Semester 8

- THTR 4010 Master Seminar (1)
- THTR 2733 Studio Production (3)
- General Education course Arts (3)<sup>2</sup>
- Approved Electives (6)<sup>3</sup>

### Total Semester Hours: 13

### 120 Total Sem. Hrs.

<sup>1</sup> - If the two course sequence is taken in the physical science, the additional three hour course must be taken from the life sciences, and vice versa.

<sup>2</sup> - Theatre (THTR) General Education courses can not be used to fulfill this requirement.

<sup>3</sup> - Not THTR 1020, THTR 1021, THTR 2028, or THTR 2128.

<sup>4</sup> - THTR LITERATURE COURSE: Select from: THTR
4021, THTR 4130, THTR 4131, THTR 4220, or THTR
4436.

<sup>5</sup>-Select from: THTR 2020, THTR 2023, THTR 2024, THTR 2830, THTR 3123, THTR 3125, THTR 3126, THTR 3134, THTR 3435, THTR 3530, THTR 3531, THTR 4820, THTR 4831, THTR 4832, or THTR 4902.

<sup>6</sup> -Select from: THTR 2020, THTR 2023, THTR 2024, THTR 2830, THTR 3123, THTR 3124, THTR 3125, THTR 3126,

, THTR 3134, THTR 3435, THTR 3530, THTR 3531, THTR 4023, THTR 4123, THTR 4124, THTR 4126, THTR 4128, THTR 4132, THTR 4134, THTR 4435, THTR 4530, THTR 4531, THTR 4540, THTR 4541, THTR 4820, THTR 4831, THTR 4832, THTR 4901, or THTR 4902.

Select from: THTR 4123, THTR 4124, THTR 4530, or THTR 4531

THTR 4023, THTR 4132, THTR 4134, THTR 4435, THTR 4541, THTR 4820, THTR 4831, THTR 4832, or THTR 4902.

THTR 3124

THTR 3435

### Performance

Additional departmental requirement: For all major courses in the theatre core and concentration a grade of C or better is required.

### **CRITICAL REQUIREMENTS**

SEMESTER 1: THTR 1025; 2.0 Cumulative GPA. SEMESTER 2: MATH 1021/MATH 1029; THTR 1001; 2.0 Cumulative GPA. SEMESTER 3: THTR 1127/THTR 1227 or THTR 1131/THTR 1231 or THTR 1153/THTR 1253; ENGL 1001; 2.0 Cumulative GPA. SEMESTER 4: THTR 2025; THTR 2130; 2.0 Cumulative GPA. SEMESTER 5: 2.0 Cumulative GPA.

Semester 1

#### Critical: THTR 1025; 2.0 Cumulative GPA.

- THTR 1001 Practical Elements of Stagecraft (3)
- THTR 1010 Apprentice Seminar (1)
- THTR 1025 Acting I: Introduction to Acting (3)
- THTR 2130 Script Analysis (3)
- MATH 1021 College Algebra (3) or
- MATH 1029 Introduction to Contemporary Mathematics (3)

Choose **one** course from the following: (1)

- THTR 1127 Beginning Modern Dance (1)
- THTR 1227 Intermediate Modern Dance (1)
- THTR 1131 Beginning Ballet (1)
- THTR 1231 Intermediate Ballet (1)
- THTR 1153 Beginning Jazz Dance (1)
- THTR 1253 Intermediate Jazz Dance (1)
- General Education course Humanities (3)

#### **Total Semester Hours: 17**

#### Semester 2

**Critical:** MATH 1021/MATH 1029; THTR 1001; 2.0 Cumulative GPA.

- THTR 2022 Introduction to Theatrical Design (3)
- THTR 2026 Theatre Practicum I (1)
- THTR 1029 Stage Movement I (3)
- THTR 2027 Stage Voice: Basic Techniques (3)
- ENGL 1001 English Composition (3)
- General Education course Humanities (3)

#### Total Semester Hours: 16

### Semester 3

**Critical:** THTR 1127/THTR 1227 or THTR 1131/THTR 1231 or THTR 1153/THTR 1253; ENGL 1001; 2.0 Cumulative GPA.

- THTR 2025 Acting II: Fundamentals of Acting (3)
- THTR 2026 Theatre Practicum I (1)

Choose **one** course from the following:

• THTR 1127 Beginning Modern Dance (1)

- THTR 1227 Intermediate Modern Dance (1)
- THTR 1131 Beginning Ballet (1)
- THTR 1231 Intermediate Ballet (1)
- THTR 1153 Beginning Jazz Dance (1)
- THTR 1253 Intermediate Jazz Dance (1)
- THTR Technology Elective (3)<sup>1</sup>
- General Education course Natural Sciences (3)<sup>5</sup>
- General Education course Social Sciences (3)

#### **Total Semester Hours: 14**

### Semester 4

**Critical**: THTR 2025; THTR 2130; 2.0 Cumulative GPA.

- THTR 2021 Directing I (3)
- THTR 2026 Theatre Practicum I (1)
- ENGL 2000 English Composition (3)
- THTR Design or Technology Course (3)<sup>2</sup>
- General Education course Humanities (3)
- General Education course Natural Sciences (3)<sup>5</sup>

### **Total Semester Hours: 16**

### Semester 5

#### Critical: 2.0 Cumulative GPA.

- THTR 3025 Acting III (3)
- THTR 3027 Stage Voice: Advanced Techniques (3)
- THTR 3029 Stage Movement II (3)
- THTR 3120 Theatre History and Literature I: Ancient Greece through Renaissance (3)

Choose **one** course from the following: (1)

- THTR 1127 Beginning Modern Dance (1)
- THTR 1227 Intermediate Modern Dance (1)
- THTR 1131 Beginning Ballet (1)
- THTR 1231 Intermediate Ballet (1)
- THTR 1153 Beginning Jazz Dance (1)
- THTR 1253 Intermediate Jazz Dance (1)
- Approved Electives (3)<sup>3</sup>

### **Total Semester Hours: 16**

### Semester 6

- THTR 2010 Journeyman Seminar (1)
- THTR 4025 Acting IV: Advanced Acting (3)
- THTR 3121 Theatre History and Literature II: Renaissance through Nineteenth Century (3)
- THTR 3122 Theatre History and Literature III: 1875 to the Present (3)
- THTR 4136 Theatre Practicum II (1)
- General Education course Natural Sciences (3)<sup>5</sup>

### Total Semester Hours: 14

### Semester 7

- THTR 4136 Theatre Practicum II (1)
- THTR Literature Course (3)<sup>4</sup>
- General Education course Analytical Reasoning (3)
- Approved Electives (7)<sup>3</sup>

### **Total Semester Hours: 14**

### Semester 8

- THTR 4010 Master Seminar (1)
- General Education course Arts (3)
- General Education course Social Sciences (3)
- Approved Electives (6)<sup>3</sup>

Total Semester Hours: 13

### 120 Total Sem. Hrs.

<sup>1</sup> - Select from: THTR 2020, THTR 2023, THTR 2024, THTR 2830, THTR 3123, THTR 3125, THTR 3126, THTR 3134, THTR 3435, THTR 3530, THTR 3531, THTR 4820, THTR 4831, THTR 4832, or THTR 4902.

<sup>2</sup> - Select from: THTR 2020, THTR 2023, THTR
2024, THTR 2830, THTR 3123, THTR 3124, THTR
3125, THTR 3126, THTR 3134, THTR 3435, THTR 3530, THTR 3531, THTR 4023, THTR 4123, THTR
4124, THTR 4126, THTR 4128, THTR 4132, THTR
4134, THTR 4435, THTR 4530, THTR 4531, THTR
4540, THTR 4541, THTR 4820, THTR 4831, THTR
4832, THTR 4901, or THTR 4902.

<sup>3</sup> - Not THTR 1020, THTR 1021, THTR 2028, or THTR 2128.

<sup>4</sup> - THTR LITERATURE COURSE: Select from: THTR
4021, THTR 4130, THTR 4131, THTR 4220, or THTR
4436.

<sup>5</sup> - If the two course sequence is taken in the physical sciences, the additional three hour course must be taken from the life sciences, and vice versa.

# **Physical Theatre**

Additional departmental requirement: For all major courses in the theatre core and concentration a grade of C or better is required.

### **CRITICAL REQUIREMENTS**

SEMESTER 1: THTR 1025; 2.0 Cumulative GPA. SEMESTER 2: MATH 1021/MATH 1029; THTR 1001; 2.0 Cumulative GPA. SEMESTER 3: ENGL 1001; 2.0 Cumulative GPA. SEMESTER 4: THTR 2130; 2.0 Cumulative GPA. SEMESTER 5: 2.0 Cumulative GPA

### Semester 1

#### Critical: THTR 1025; 2.0 Cumulative GPA.

- THTR 1001 Practical Elements of Stagecraft (3)
- THTR 1010 Apprentice Seminar (1)
- THTR 1025 Acting I: Introduction to Acting (3)
- THTR 2026 Theatre Practicum I (1)
- MATH 1021 College Algebra (3) or
- MATH 1029 Introduction to Contemporary Mathematics (3)
- General Education course Social Sciences (3)
- General Education course Humanities (3)

### Total Semester Hours: 17

### Semester 2

Critical: MATH 1021/MATH 1029; THTR 1001; 2.0 Cumulative GPA.

- THTR 2022 Introduction to Theatrical Design (3)
- THTR 2026 Theatre Practicum I (1)
- THTR 2130 Script Analysis (3)
- ENGL 1001 English Composition (3)
- THTR Elective (1)<sup>1</sup>
- General Education course Humanities (3)

### Semester 3

Critical: ENGL 1001; 2.0 Cumulative GPA.

- THTR 1029 Stage Movement I (3) <sup>5</sup>
- THTR Elective  $(1)^1$
- THTR Technology Elective (3)<sup>6</sup>
- General Education course Natural Sciences (3)<sup>8</sup>
- General Education course Analytical Reasoning (3)
- General Education course Social Sciences (3)

### Total Semester Hours: 16

### Semester 4

Critical: THTR 2130; 2.0 Cumulative GPA.

- ENGL 2000 English Composition (3)
- THTR 2026 Theatre Practicum I (1)
- THTR 2021 Directing I (3)
- THTR 3029 Stage Movement II (3) <sup>5</sup>
- THTR Design or Tech Course (3)<sup>7</sup>
- THTR Elective (1)<sup>1</sup>
- General Education course Natural Sciences (3)<sup>8</sup>

### Total Semester Hours: 17

### Semester 5

Critical: 2.0 Cumulative GPA.

- THTR 3120 Theatre History and Literature I: Ancient Greece through Renaissance (3)
- THTR 3032 Viewpoints and Ensemble (3)
- General Education course Natural Sciences (3)<sup>8</sup>
- THTR Elective (1)<sup>1</sup>
- Approved Elective (3)<sup>3</sup>

### **Total Semester Hours: 13**

### Semester 6

- THTR 2010 Journeyman Seminar (1)
- THTR 3803 Improvisation (3)
- THTR 3121 Theatre History and Literature II: Renaissance through Nineteenth Century (3)
- THTR 3122 Theatre History and Literature III: 1875 to the Present (3)
- THTR 4136 Theatre Practicum II (1)
- THTR Elective (1)<sup>1</sup>
- PHYS THTR Elective Course (3)<sup>2</sup>

### **Total Semester Hours: 15**

### Semester 7

- General Education course Humanities (3)
- THTR Elective (1)<sup>1</sup>
- PHYS THTR Elective Course (3)<sup>2</sup>
- THTR Literature Course (3)<sup>4</sup>
- Approved Elective (4)<sup>3</sup>

### **Total Semester Hours: 14**

### Semester 8

- THTR 4010 Master Seminar (1)
- THTR 4136 Theatre Practicum II (1)
- General Education course Arts (3)
- PHYS THTR Elective Course (3)<sup>2</sup>
- Approved Electives (6)<sup>3</sup>

### **Total Semester Hours: 14**

### 120 Total Sem. Hrs.

<sup>1</sup> - Select from: THTR 1127, THTR 1131, THTR 1153, THTR 1227, THTR 1231, THTR 1253, THTR 2031, or THTR 4031.

<sup>2</sup> - Select from: THTR 2025, THTR 2032, THTR 3800, THTR 4029, THTR 4032, THTR 4033, or THTR 3802.

<sup>3</sup> - Not THTR 1020, THTR 1021, THTR 2028, or THTR 2128.

<sup>4</sup> - THTR LITERATURE COURSE: Select from: THTR
4021, THTR 4130, THTR 4131, THTR 4220, or THTR
4436.

<sup>5</sup> - THTR 1029 (offered in fall semester); THTR 3029 (offered in spring semesters).

<sup>6</sup> - Select from THTR 2020, THTR 2023, THTR 2024, THTR 2830, THTR 3123, THTR 3125, THTR 3126, THTR 3134, THTR 3435, THTR 3530, THTR 3531, THTR 4820, THTR 4831, THTR 4832, or THTR 4902.

<sup>7</sup>- Select from THTR 2020, THTR 2023, THTR
2024, THTR 2830, THTR 3123, THTR 3124, THTR
3125, THTR 3126, THTR 3134, THTR 3435, THTR 3530, THTR 3531, THTR 4023, THTR 4123, THTR
4124, THTR 4126, THTR 4128, THTR 4132, THTR
4134, THTR 4435, THTR 4530, THTR 4531, THTR
4540, THTR 4541, THTR 4820, THTR 4831, THTR
4832, THTR 4901, or THTR 4902.

<sup>8</sup> - If the two-course sequence is taken in the physical science, the additional three-hour course must be taken from the life sciences, and vice versa.

### **Theatre Studies**

Additional departmental requirement: For all major courses in the theatre core and concentration a grade of C or better is required.

### **CRITICAL REQUIREMENTS**

SEMESTER 1: THTR 1025; 2.0 Cumulative GPA. SEMESTER 2: MATH 1021/MATH 1029; THTR 1001; 2.0 Cumulative GPA. SEMESTER 3: ENGL 1001; 2.0 Cumulative GPA. SEMESTER 4: THTR 2130; 2.0 Cumulative GPA. SEMESTER 5: 2.0 Cumulative GPA

### Semester 1

Critical: THTR 1025; 2.0 Cumulative GPA.

- THTR 1001 Practical Elements of Stagecraft (3)
- THTR 1010 Apprentice Seminar (1)
- THTR 1025 Acting I: Introduction to Acting (3)
- THTR 2026 Theatre Practicum I (1)
- MATH 1021 College Algebra (3) or

- MATH 1029 Introduction to Contemporary Mathematics (3)
- ENGL 1001 English Composition (3)
- General Education course Humanities (3)

#### **Total Semester Hours: 17**

#### Semester 2

**Critical:** MATH 1021/MATH 1029; THTR 1001; 2.0 Cumulative GPA.

- THTR 2022 Introduction to Theatrical Design (3)
- THTR 2026 Theatre Practicum I (1)
- THTR 2130 Script Analysis (3)
- General Education course Social Sciences (3)
- General Education course Humanities (3)

**Total Semester Hours: 13** 

### Semester 3

Critical: ENGL 1001; 2.0 Cumulative GPA.

- THTR Selection  $(3)^3$
- THTR Technology Elective (3)<sup>2</sup>
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Analytical Reasoning (3)
- General Education course Humanities (3)

### **Total Semester Hours: 15**

### Semester 4

#### Critical: THTR 2130; 2.0 Cumulative GPA.

- THTR 2021 Directing I (3)
- THTR 2026 Theatre Practicum I (1)
- ENGL 2000 English Composition (3)
- THTR Selection  $(3)^3$
- THTR Design or Tech Course (3)<sup>4</sup>
- General Education course Natural Sciences (3)<sup>1</sup>

#### **Total Semester Hours: 16**

### Semester 5

Critical: 2.0 Cumulative GPA

- THTR 2010 Journeyman Seminar (1)
- THTR 3120 Theatre History and Literature I: Ancient Greece through Renaissance (3)
- Approved Electives (3)<sup>7</sup>
- Approved THTR courses (9)<sup>5</sup>

#### **Total Semester Hours: 16**

### Semester 6

- THTR 3121 Theatre History and Literature II: Renaissance through Nineteenth Century (3)
- THTR 3122 Theatre History and Literature III: 1875 to the Present (3)
- THTR 4136 Theatre Practicum II (1)
- Approved THTR courses (6)<sup>5</sup>
- General Education course Natural Sciences (3)<sup>1</sup>

#### **Total Semester Hours: 16**

#### Semester 7

- THTR 4136 Theatre Practicum II (1)
- THTR Literature Course (3)<sup>6</sup>
- Approved THTR Course (3)<sup>5</sup>
- Approved Electives (6)<sup>7</sup>

### **Total Semester Hours: 13**

#### Semester 8

- THTR 4010 Master Seminar (1)
- General Education course Arts (3)
- General Education course Social Sciences (3)
- Approved Electives (7)<sup>7</sup>

#### Total Semester Hours: 14

### 120 Total Sem. Hrs.

<sup>1</sup> - If two course sequence is taken in the physical science, the additional three hour course must be taken from the life sciences, and vice versa. <sup>2</sup> - Select from: THTR 2020, THTR 2023, THTR
2024, THTR 2830, THTR 3123, THTR 3125, THTR 3126, THTR 3134, THTR 3435, THTR 3530, THTR
3531, THTR 4820, THTR 4831, THTR 4832, or THTR 4902.

<sup>3</sup> - Select from: THTR 2008 or THTR 4008, THTR 4021, THTR 4130, THTR 4131, THTR 4220, or THTR 4436. (Cannot repeat a course already used to fulfill the B.A. Theatre literature requirement).

<sup>4</sup> - Select from: THTR 2020, THTR 2023, THTR
2024, THTR 2830, THTR 3123, THTR 3124, THTR
3125, THTR 3126, THTR 3134, THTR 3435, THTR 3530, THTR 3531, THTR 4023, THTR 4123, THTR
4124, THTR 4126, THTR 4128, THTR 4132, THTR
4134, THTR 4435, THTR 4530, THTR 4531, THTR
4540, THTR 4541, THTR 4820, THTR 4831, THTR
4832, THTR 4901, or THTR 4902.

<sup>5</sup> - Approved Theatre Course: Choose any combination of theatre courses. Not THTR 1020, THTR 1021, THTR 2028, or THTR 2128.

<sup>6</sup> - THTR LITERATURE COURSE:Select from: THTR 4021, THTR 4130, THTR 4131, THTR 4220, or THTR 4436.

<sup>7</sup> - APPROVED ELECTIVES:Not THTR 1020, THTR 1021, THTR 2028, or THTR 2128.

# **College of Science**

CYNTHIA B. PETERSON	SAMUEL BENTLEY	
Dean	Associate Dean of Research	
ANDREW W. MAVERICK	KATHRYN T. LOVELESS	
Associate Dean for Student Services	Assistant Dean for Student Services	
ZAKIYA WILSON-KENNEDY	CARLY L. BLOSS	
Assistant Dean for Diversity and Inclusion	Assistant Dean for Finance and Administration	
JAMES MADDEN	ROBBY S. BOWEN	
Director of Special Programs	Director of Pre-Health Programs	
SHALLENE E. JOSEPH	MEGAN K. KLINGLER	
Academic Counselor	Academic Coordinator	
CAPRI M. MANDELLA	ERIN F. SNYDER	
Academic Advisor	Academic Coordinator	
ERIN DOHERTY PECK	ELORA C. DOSKEY	
Academic Counselor	Recruitment Coordinator	
OFFICE 124 Hatcher Hall		
TELEPHONE 225-578-4200		
FAX 225-578-8826		
WEBSITE science.lsu.edu		

# **Departments and Curricula**

Department of Biological Sciences Department of Mathematics

Department of Chemistry Department of Physics & Astronomy Department of Geology & Geophysics

The College of Science offers preparation for careers in biochemistry, biological sciences, chemistry, geology and geophysics, mathematics, microbiology, and physics and astronomy. Students are also provided with strong academic backgrounds for professional study in medicine, dentistry, pharmacy, and many other careers that require in-depth study of science and mathematics.

The departments within the college, the various curricula, and the degrees that may be earned are shown in the chapter "Academic Programs." These curricula provide broad general education as well as knowledge of the structure of science. Students in the college may also choose curricula that provide pre-medical or pre-dental preparation, including curricula in biochemistry, biological sciences, chemistry with a pre-professional concentration, and physics with a medical physics concentration. Classroom and laboratory study may be supplemented by contact with active research programs.

The departments of the college offer work leading to the bachelor's, master's, and doctoral degrees.

### **Degree Programs**

All undergraduate degrees in the College of Science are Bachelor of Science degrees. The following programs are offered by the College of Science:

Biochemistry Geology **Biological Sciences** Mathematics Microbiology Physics Chemistry

For specific information concerning undergraduate degree programs, refer to the curricula offered by the departments on the following pages. Detailed information about graduate degree programs may be obtained from "The Graduate School" section.

# **Admission Requirements**

Students who contemplate entering this college should give special attention to the mathematics and science courses they select and should consult a representative of the department they plan to enter prior to completing their initial registration.

Admission requests to the College of Science must be submitted to 124 Hatcher Hall by the last day to add courses for the semester in which the student is seeking admission. For more information please see the college website.

Students will be admitted to the college when they:

- have earned 24 or more semester hours of credit in courses numbered 1000 or above;
- have maintained a grade point average of at least 2.00 on both LSU and cumulative averages;
- have passed all courses in mathematics and science with grades of "C-" or better or received special approval of the dean of the college;
- have passed ENGL 1001 or the equivalent with a grade of "C-" or better;
- have earned credit in either MATH 1022, MATH 1023, MATH 1550 or MATH 1551 with a grade of "C-" or better.
- entry into any of the three majors in the Department of Biological Sciences (biochemistry, biological sciences, and microbiology) requires earned credit in BIOL 1201 and BIOL 1202; CHEM 1201; and MATH 1550.
- entry into any of the four secondary education concentrations (biological sciences, chemistry, mathematics, or physics) requires a 2.50 LSU and cumulative GPA; and passing scores on the Praxis Core Academic Skills for Educators (PRAXIS CORE) or minimum ACT composite of 22 or minimum SAT composite of 1030.

Students transferring from another institution must meet university transfer admission requirements. Transfer students must also meet the current admission requirements of the College of Science and receive approval of the dean of the college.

Students who, after initial enrollment in this college, wish to obtain credits from colleges or universities other than LSU and who plan to use such credits toward their degree requirements must obtain *prior approval* from the dean on a course-specific basis.

## **Degree Requirements of the College**

The college offers the bachelor's degree in curricula designed to give students a thorough education in a particular scientific discipline. In addition, a core of material representing a broad exposure to the human cultural heritage is an integral part of the curricula in the college. That core consists of the following course work:

**English** • Nine semester hours including ENGL 1001, ENGL 2000, and three hours chosen from 2000-level or above English or Honors courses from the general education humanities list. Some curricula require an additional three hours in English.

**Mathematics** • A minimum of five semester hours of calculus (MATH 1550). Most curricula require additional credits in mathematics. Degree credit will not be allowed for mathematics courses numbered below 1550.

**Foreign Language** • Students may satisfy the college foreign language requirement by passing four semester hours in foreign language. Some curricula require eight semester hours in a single foreign language.

International students whose native language is not English and who did not attend an English-speaking high school may satisfy the foreign language requirement as follows:

- As shown above (in a language other than the student's native language); or
- By passing six to nine hours (depending on curricula) in his or her native language in courses that may be taken for credit by native speakers of the language; or
- By taking six to nine hours (depending on curricula) of English and/or speech (CMST) above the minimum requirements in the curriculum for the BS degree. The courses must be pre-approved by the dean and must be taken at LSU. At least three hours must be at the 2000-level or above.

**Sciences** • Eleven hours including a two-semester sequence of study in a biological science or a physical science and a onesemester course in the alternative field not chosen for the one-year requirement. The one-year sequence must include two hours of laboratory credit. Courses selected to meet this requirement must be chosen from courses offered by departments in the College of Science and come from the approved list. Arts, Social Sciences and Humanities • These hours must be taken from the General Education list.

- *Arts* Three hours from the general education arts list.
- *Humanities* In some curricula, three hours chosen from the general education humanities list, in addition to the English and foreign language requirements described above.
- Social Sciences Six hours chosen from the general education social sciences list. At least three hours must be at the 2000 level or above.

Academic Policy • Following is a listing of the more important academic policies of the college offered to guide students toward degrees.

- All students must complete a program of study established by the department concerned and approved by the faculty and the dean of the college.
- No curriculum in the college requires less than 120 semester hours; some curricula require more.
- Students in all degree programs of the college *must earn at least 24 of the last 30 semester hours* offered toward their degrees *as registrants in the College of Science* at LSU. The university requires that all candidates for the bachelor's degree must fulfill a minimum residence requirement of at least 25 percent of the total number of hours required for the degree at this university.
- Students in all degree programs of the college must earn in residence on the LSU campus (Baton Rouge) at least 18 of the hours offered toward their degrees in courses offered by departments in the College of Science. In all degree programs, at least nine of these 18 hours must be in courses numbered above 3000 and offered by the department administering the major program. Students majoring in the Department of Biological Sciences must have nine semester hours in courses numbered above 3000 in their major. Research courses cannot be used in the residence requirement of nine hours numbered above 3000. A maximum of three semester hours in research courses may be used in the 18-hour residence requirement. Courses used to satisfy all residence requirements must be passed with a grade of "C-" or better.
- Independent & Distance Learning courses, Online Distance Learning courses, and courses in which credit was earned through credit examination may not be used to satisfy the college residence requirement.
- The following courses must be passed with a grade of "C-" or better: (1) all required science, computer science, and mathematics courses; (2) all restricted, second discipline, and advanced sciences electives; and (3) ENGL 1001 and ENGL 2000. If a student makes a "D" or "F" in a course requiring a "C-" or better, the course must be taken and not dropped the next semester the student is in residence and the course is offered.
- Non-participation courses in kinesiology may be taken for elective credit. A maximum of three semester hours will be allowed in kinesiology participation (activity) courses. Twelve semester hours of ROTC may be allowed for degree credit, with no more than six of the twelve semester hours in courses numbered below 3000. However, the sum of basic (1000/2000 level) ROTC course credits and kinesiology activity course credits allowed toward the degree may not exceed six semester hours.
- Students are expected to make reasonable and satisfactory progress in a degree program. Consequently, sequential scheduling of courses in the major field is necessary, and required courses in English and mathematics must be scheduled each semester until they are satisfactorily passed. If necessary, a required course may be dropped *once*, but normally, *not* a second time.
- Application for the bachelor's degree must be made in writing and your graduation contract approved by the dean of the college during the semester *prior to* the semester in which the degree is to be awarded.
- In order to meet graduation requirements, students must have a 2.00 on both the LSU and cumulative grade point averages. A 2.50 LSU and cumulative grade point average is required for students graduating in any of the secondary education concentrations.

### Earning Two Degrees or one Degree with Two Majors

With the dean's approval, a student may be enrolled in two bachelor's degree programs concurrently and thereby either earn two degrees, or earn one degree with two majors listed on the transcript, provided all requirements are completed as of the same commencement.

A student may earn one degree, with two majors listed on the transcript, by completing the residence and academic requirements for each major and the degree program to which it belongs. The student may earn two degrees by, in addition, earning 30 hours more than required for the degree that requires the fewer number of hours.

If the two programs are in different colleges, then the student must be accepted for admission to both colleges and must adhere to the regulations of both colleges. The student must declare a home college, where registration will be initiated and permanent files maintained, and must maintain contact with the second college to ensure that satisfactory progress is being made toward the requirements of its degree program.

# **College Probation**

A student in the College of Science who fails to earn a 2.00 semester average in a regular semester or a summer term will be placed on college probation. In addition, students who fail to meet the college academic requirements noted in the section on degree requirements, or who enter the college with deficiencies, may be placed on college probation. At the discretion of the dean, a student who is on college probation and fails to meet the academic requirements, including earning a 2.00 or better semester average, may be declared ineligible to continue in the college. A student on college probation who does earn a 2.00 or better semester GPA, who remediates course deficiencies, and who makes satisfactory progress in the degree program will be removed from college probation.

# **Pre-Medical and Pre-Dental Counseling**

Counselors are available to help students with applications to medical and dental schools. This application process begins one and one-half years prior to professional school entry. Students are encouraged to begin researching professional school admission requirements and information regarding the application process as early as possible. Information regarding the pre-medical/pre-dental program at LSU and the application process is available online at Premedical/Predental Advising.

The College of Science sponsors a Pre-medical/Pre-dental Review Committee that provides letters of evaluation for LSU students applying to professional schools. Students wishing to use the services of the LSU Pre-medical/Pre-dental Review Committee must: (1) have a minimum 3.0 cumulative and science GPA, (2) have been enrolled on the LSU main campus as a full time student for at least two semesters, (3) attend mandatory informational meetings during the fall of their application year (typically junior year), and (4) meet all registration deadlines. The College of Science maintains an email listserv for both premedical and predental students as well as social media sites to communicate with students. Information about joining these groups can be obtained from the Dean's office.

Further information about the committee procedures and requirements may be obtained in the Dean's office in 124 Hatcher Hall.

# **Pass-Fail Option**

Students in the College of Science may register for courses in the college on a pass-fail basis under the following conditions:

- Only students with a 2.50 average or better may participate.
- Only *free elective* courses may be taken on a pass-fail basis. Required courses, restricted electives, and courses germane to the major and the career for which the student is preparing may not be taken on a pass-fail basis. Registration for a course on a pass-fail basis will not be permitted until the required work in the same area has been satisfactorily completed. A student *may not* take courses offered by the Honors College on a pass-fail basis.
- Eligible students may take one course per semester up to a total of 12 hours toward the degree on a pass-fail basis.
- A student must have permission (by signatures on a petition form) from the dean of this college, the instructor of the course, and the student's department chair.
- Pass-fail registration must be completed before the final day for adding courses.

**Students from other colleges** who wish to register for courses in this college on a pass-fail basis will present a petition form to the dean of this college. If the petition is approved, the student will then present the form to the instructor concerned for the appropriate action.

Courses offered by the College of Science that are required in a student's curriculum or are normally considered important in preparation for the student's career will not be approved on a pass-fail basis.

# **Distance Learning Programs Credit and Intersession Credit**

LSU Continuing Education offers both Independent & Distance Learning (IDL) and Online Distance Learning (ODL) courses. Credit earned through this LSU division may be accepted toward meeting degree requirements only with approval of the dean of the college and may not exceed a total of 12 hours.

Students in residence may take IDL or ODL credit only in exceptional cases (e.g., conflicts between single sections of required courses) and with specific approval of the dean of the college.

Students may not be enrolled in IDL or ODL credit the semester they intend to graduate.

Students in the College of Science may not register for more than three semester hours of credit during Intersession without approval of the dean.

# **Minor Field Requirements (Optional)**

A student in the College of Science may earn a minor in a second field under the following conditions:

- The minor must include at least 15 semester hours of course work, of which at least six semester hours must be taken on this campus and at least three of the six hours must be at the 3000- or 4000-level.
- Each course used in the minor must be passed with a grade of "C-" or better.
- Courses used for the minor may not be taken on a pass/fail basis.
- All minors must be approved by the dean.

The department offering the minor may impose additional requirements; the specific requirements of the department must be stated in the catalog.

Students in other colleges who wish to obtain a minor in one of the departments of the College of Science must meet the same requirements listed above.

# **Teacher Preparation Program for Grades 6-12**

The departments of Biological Sciences, Chemistry, Mathematics, and Physics & Astronomy offer undergraduate degree programs with an area of concentration in secondary education (middle school and high school). Students in the program may receive a BS in biological sciences, chemistry, mathematics, or physics and qualify for teacher certification. The curricula have been developed cooperatively with faculty in the College of Human Sciences and Education and include courses taught jointly by faculty in the College of Science and the College of Human Sciences and Education. Students completing these degree programs and meeting any additional requirements of the Louisiana Department of Education will be eligible for certification in the state of Louisiana as teachers in grades 6-12.

The following requirements pertain to students enrolled in the secondary education concentration:

#### Admission Requirements:

- Minimum cumulative and LSU grade point average of 2.50
- Passing scores on all parts of the Praxis Core Academic Skills for Educators (PRAXIS CORE) or minimum ACT composite score of 22 or minimum SAT composite score of 1030

#### Retention Requirements:

• Minimum cumulative and LSU grade point average of 2.50 for entry into and continuation in upper-level (3000/4000-level) education courses, including student teaching

#### Degree Requirements:

- Satisfactory completion of an approved program of study as determined by all of the following: faculty of the college in which the major/concentration resides, the university, and the Louisiana Board of Elementary and Secondary Education
- Minimum cumulative and LSU GPA of 2.50 on all work completed
- Passing scores on all required parts of the Praxis II Series

• Grade of "C-" or higher in course work as specified by the Louisiana Board of Elementary and Secondary Education

#### Application for Student Teaching:

Application for student teaching must be made to the College of Human Sciences and Education Office of Student Services no later than three weeks after classes begin in the semester prior to student teaching. Late applications cannot be guaranteed consideration.

A second option for students interested in middle/high school science teaching is to pursue a traditional bachelor's degree in science and then complete a master's degree in the LSU College of Human Sciences and Education. The master's degree program (Holmes Program) begins in June and requires 12 consecutive months of course work and classroom experience leading to both the master's degree and teaching certification. Information about the program and potential scholarship assistance is available through the College of Human Sciences and Education, Office of Student Services.

# **Department of Biological Sciences**

OFFICE TELEPHONE	202 Life Sciences Building 225-578-2601
FAX	225-578-2597
WEBSITE	www.biology.lsu.edu

The Department of Biological Sciences offers a comprehensive background in biology for teacher preparation, graduate studies, and for professional programs in medicine, dentistry, pharmacy, and veterinary medicine. The department offers Bachelor of Science degrees in biochemistry, biological sciences, and microbiology. All degrees require a core of departmental courses that include BIOL 1201, BIOL 1202, BIOL 1208, BIOL 1209, BIOL 2051, BIOL 2153, BIOL 3040, and either BIOL 4087 or BIOL 4093 and BIOL 4094. In addition, all students are required to take a specified number of approved biochemistry, biological sciences, or microbiology electives from lecture and laboratory courses numbered 3000 and above. Students seeking the Bachelor of Science degree in biological sciences may fulfill the requirement for these electives with courses from all areas of the department may earn a maximum of six hours of BIOL 3999. A maximum of three hours of BIOL 3999 may be taken as advanced biochemistry, biological sciences, or microbiology electives. BIOL 3999 may not be used as a laboratory course. Students may earn more than one degree or one degree with multiple majors in the department but biological science courses numbered 3000 and above (excluding BIOL 3040 and BIOL 4087 or BIOL 4093 and BIOL 4094) may only be applied to one degree or major within the Department of Biological Sciences. This policy also applies to transfer students who enter with a degree earned in one of the Department of Biological Sciences majors. Majors in the department are ineligible for the department and innor.

# Admission into the Department of Biological Sciences

In addition to admission to the College of Science, entry into any of the three majors (biochemistry, biological sciences, and microbiology) in the Department of Biological Sciences requires earned credit in BIOL 1201 and BIOL 1202; CHEM 1201; and MATH 1550.

### **Biological Sciences Minor**

An undergraduate *minor in biological sciences* is available to students majoring in curricula outside the Department of Biological Sciences. Required courses are BIOL 1201, BIOL 1202, BIOL 1208, BIOL 1209, BIOL 2051, BIOL 2153, BIOL 3040, BIOL 4087, and at least three more hours of biological sciences in a course at the 3000 level (excluding BIOL 3999, BIOL 4003, BIOL 4005) or above (total of 26 hours).

### **Biochemistry**, B.S.

### **Biochemistry**

### **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001 and CHEM 1201; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 2: "C" or better in BIOL 1201 and MATH 1550; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 3: "C" or better in BIOL 1202 and CHEM 1202; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 4: "C" or better in CHEM 2261 and MATH 1552; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 5: "C" or better in BIOL 2051 or BIOL 2153; 2.0 Cumulative, LSU and Semester GPA.

### Semester 1

**CRITICAL:** "C" or better in ENGL 1001 and CHEM 1201; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)
- CHEM 1201 General Chemistry I (3)
- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)

### **Total Semester Hours: 15**

### Semester 2

**CRITICAL:** "C" or better in BIOL 1201 and MATH 1550; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1)
- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- MATH 1552 Analytic Geometry and Calculus II (4) or
- MATH 1554 Calculus II for Life Sciences (4)

• General Education course - Arts (3)

### **Total Semester Hours: 16**

### Semester 3

**CRITICAL:** "C" or better in BIOL 1202 and CHEM 1202; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 2051 General Microbiology (4) or
- BIOL 2153 Principles of Genetics (4)
- CHEM 2001 Analytical Chemistry (3)
- CHEM 2261 Organic Chemistry (3)
- PHYS 2001 General Physics I (3)
- PHYS 2108 Introductory Physics Laboratory (1)

### **Total Semester Hours: 14**

### Semester 4

**CRITICAL:** "C" or better in CHEM 2261 and MATH 1552; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 2153 Principles of Genetics (4) or
- BIOL 2051 General Microbiology (4)
- ENGL 2000 English Composition (3)
- CHEM 2262 Organic Chemistry (3)
- CHEM 2364 Organic Chemistry Laboratory (2)
- PHYS 2002 General Physics II (3)
- PHYS 2109 General Physics Laboratory (1)

### **Total Semester Hours: 16**

### Semester 5

**CRITICAL:** "C" or better in BIOL 2051 or BIOL 2153; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 4093 General Biochemistry I (3)<sup>2</sup>
- BIOL 3040 Evolution (3)
- Approved Biochemistry Elective (3)<sup>3</sup>
- First Course in Foreign Language Sequence (4)<sup>1</sup>

• General Education course - Humanities (English/Honors 2000-level) (3)

**Total Semester Hours: 16** 

### Semester 6

- BIOL 4094 General Biochemistry II (3) <sup>2</sup>
- BIOL 4001 Physical Chemistry (3)
- Second Course in Foreign Language Sequence (4)<sup>1</sup>
- General Education course Humanities (English/Honors 2000-level) (3)

### **Total Semester Hours: 13**

### Semester 7

- BIOL 4385 Biochemistry Laboratory (3)
- Approved Biochemistry Electives (6)<sup>3</sup>
- General Education course Social Sciences (3)
- General Education course Social Sciences (2000-level) (3)

### Total Semester Hours: 15

### Semester 8

- Approved Biochemistry Elective (3)<sup>3</sup>
- Approved Electives (12)

### **Total Semester Hours: 15**

### 120 Total Sem. Hrs.

<sup>1</sup> - OPTION: Complete foreign language requirement (shown in semesters 5 and 6) in semesters 2 and 3 if continuing in the language studied in high school.

<sup>2</sup> - Class is offered in FALL or SPRING only. Check schedule book.

<sup>3</sup> - Approved biochemistry electives must come from the following list, must include at least one laboratory course, and must include at least one course from Group 1 and at least two courses from Group 2. Courses from any of the groups can be used for the remainder of the 12-hour requirements:

### Group 1:

- BIOL 4596 Biophysics of Macromolecules (3)
- CHEM 4150 Environmental Chemistry (3)
- CHEM 4160 Industrial Organic Chemistry (3)
- CHEM 4552 Instrumental Characterization of Organic Compounds (2)
- CHEM 4561 Physical-Organic Chemistry (3)
- CHEM 4562 Intermediate Organic Chemistry (3)
- CHEM 4563 Organic Structure Elucidation (3)
- CHEM 4564 Advanced Organic and Inorganic Laboratory (3)
- CHEM 4570 Inorganic Chemistry (3)

### Group 2:

- BIOL 3060 Introductory Plant Physiology (4)
- PLHL 3060 Introductory Plant Physiology (4)
- BIOL 3090 Cell Biology (3)
- BIOL 3156 Developmental Zoology (4)
- BIOL 4097 Biochemistry of Aging (3)
- BIOL 4110 Introductory Microbial Physiology (3)
- BIOL 4132 Eukaryotic Molecular Genetics (3)
- BIOL 4158 Endocrinology (3)
- BIOL 4160 Vertebrate Physiology (3)
- BIOL 4165 Environmental Adaptations (3)
- BIOL 4177 Neurobiology (3)
- BIOL 4246 Microbial Genetics (3)
- BIOL 4400 Molecular Genetics Laboratory (3)
- BIOL 4450 Cell Biology of the Nucleus (3)
- BIOL 4753 Human Molecular Genetics (3)

### Group 3:

BIOL 3999 can also be taken as a biochemistry elective but does not count as a laboratory course.

- BIOL 4002 Insect Biology (3)
- ENTM 4002 Insect Biology (3)
- BIOL 4015 Conservation Biology (4)
- BIOL 4084 Geomicrobiology (3)
- GEOL 4084 Geomicrobiology (3)
- BIOL 4090 Marine and Environmental Microbiology (3)
- OCS 4090 Marine and Environmental Microbiology (3)

- BIOL 4115 Microbial Ecology (3)
- BIOL 4253 Principles of Ecology (3)
- BIOL 4256 Microbial Ecology and Nutrient Cycling in Soils (4)
- AGRO 4056 Microbial Ecology and Nutrient Cycling in Soils (4)
- EMS 4056 Microbial Ecology and Nutrient Cycling in Soils (4)
- BIOL 4262 Marine Communities (3)
- BIOL 4308 Plants in Coastal Environments (3)
- OCS 4308 Plants in Coastal Environments (3)
- BIOL 4020 Taxonomy and Ecology of Wetland Plants (4)
- RNR 4020 Taxonomy and Ecology of Wetland Plants (4)
- BIOL 4041 Plant Taxonomy (4)
- BIOL 4054 Introductory Mycology (4)
- PLHL 4054 Introductory Mycology (4)
- BIOL 4105 Parasitology (3)
- BIOL 4125 Prokaryotic Diversity (3)
- BIOL 4126 Methods in Microbial Diversity (4)
- BIOL 4141 Mammalogy (4)
- BIOL 4142 Ornithology (4)
- BIOL 4145 Ichthyology (4)
- RNR 4145 Ichthyology (4)
- BIOL 4146 Herpetology (4)
- BIOL 4154 Invertebrate Zoology (4)
- BIOL 4162 Food Microbiology (4)
- NFS 4162 Food Microbiology (4)
- BIOL 4163 Industrial Microbiology (4)
- NFS 4163 Industrial Microbiology (4)

### **Biological Sciences, B.S.**

# **Biological Sciences**

### **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001 and CHEM 1201; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 2: "C" or better in BIOL 1201 and MATH 1550; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 3: "C" or better in BIOL 1202 and CHEM 1202; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 4: "C" or better in CHEM 2261; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 5: "C" or better in BIOL 2051 or BIOL 2153; 2.0 Cumulative, LSU and Semester GPA.

### Semester 1

**CRITICAL:** "C" or better in ENGL 1001 and CHEM 1201; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)
- CHEM 1201 General Chemistry I (3)
- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)

### Total Semester Hours: 15

### Semester 2

**CRITICAL:** "C" or better in BIOL 1201 and MATH 1550; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1)
- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- MATH 1552 Analytic Geometry and Calculus II (4) or
- MATH 1554 Calculus II for Life Sciences (4) or
- EXST 2201 Introduction to Statistical Analysis (4)
- General Education course Arts (3)

### **Total Semester Hours: 16**

### Semester 3

**CRITICAL:** "C" or better in BIOL 1202 and CHEM 1202; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 2051 General Microbiology (4) or
- BIOL 2153 Principles of Genetics (4)
- CHEM 2261 Organic Chemistry (3)

- First Course in Foreign Language Sequence (4)<sup>1</sup>
- General Education course Humanities (English/Honors 2000-level) (3)

### Semester 4

**CRITICAL:** "C" or better in CHEM 2261; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 2153 Principles of Genetics (4) or
- BIOL 2051 General Microbiology (4)
- ENGL 2000 English Composition (3)
- CHEM 2262 Organic Chemistry (3)
- CHEM 2364 Organic Chemistry Laboratory (2)
- Second Course in Foreign Language Sequence (4)<sup>1</sup>

### **Total Semester Hours: 16**

### Semester 5

**CRITICAL:** "C" or better in BIOL 2051 or BIOL 2153; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 4087 Basic Biochemistry (4) or
- BIOL 4093 General Biochemistry I (3) and
- BIOL 4094 General Biochemistry II (3)
- PHYS 2001 General Physics I (3)
- PHYS 2108 Introductory Physics Laboratory (1)
- BIOL 3040 Evolution (3)
- Approved Elective (3-1)

### **Total Semester Hours: 14**

### Semester 6

- PHYS 2002 General Physics II (3)
- PHYS 2109 General Physics Laboratory (1)
- General Education course Social Sciences (3)
- Approved Bioloigical Sciences Electives (6)<sup>2</sup>
- Approved Elective (3)

### **Total Semester Hours: 16**

### Semester 7

- General Education course Social Sciences (2000-level) (3)
- Approved Biological Sciences Electives (6)<sup>2</sup>
- Approved Electives (5)

### **Total Semester Hours: 14**

### Semester 8

- General Education course Humanities (English/Honors 2000-level) (3)
- Approved Biological Sciences Electives (5)<sup>2</sup>
- Approved Electives (7)

### Total Semester Hours: 15

# 120 Total Sem. Hrs.

<sup>1</sup> - OPTION: Begin foreign language requirement (shown in semesters 3 and 4) in Semester 2 if continuing in the language studied in high school.

- Approved biological sciences electives (17 hours required) are BIOL courses numbered 3000 and higher and must include two courses with laboratories (excluding independent research BIOL 3999). Further, biological sciences electives must include at least one course from three of the following areas:

### 1) molecular and cellular biology:

- BIOL 3090 Cell Biology (3)
- BIOL 3116 Advanced Microbiology Laboratory (3)
- BIOL 4001 Physical Chemistry (3)
- BIOL 4097 Biochemistry of Aging (3)
- BIOL 4104 Histology (4)
- BIOL 4123 Immunology (3)
- BIOL 4124 Microbial Pathogens (3)
- BIOL 4132 Eukaryotic Molecular Genetics (3)
- BIOL 4165 Environmental Adaptations (3)
- BIOL 4177 Neurobiology (3)
- BIOL 4190 Introductory Virology (3)

- BIOL 4215 Molecular Biology of Bacterial Disease (3)
- BIOL 4246 Microbial Genetics (3)
- BIOL 4385 Biochemistry Laboratory (3)
- BIOL 4400 Molecular Genetics Laboratory (3)
- BIOL 4450 Cell Biology of the Nucleus (3)
- BIOL 4596 Biophysics of Macromolecules (3)
- BIOL 4753 Human Molecular Genetics (3)

# 2) physiology, anatomy, and development:

- BIOL 3060 Introductory Plant Physiology (4) or
- PLHL 3060 Introductory Plant Physiology (4)
- BIOL 3152 Comparative Anatomy of the Vertebrates (4)
- BIOL 3156 Developmental Zoology (4)
- BIOL 4110 Introductory Microbial Physiology (3)
- BIOL 4155 Environmental Physiology (3)
- BIOL 4158 Endocrinology (3)
- BIOL 4160 Vertebrate Physiology (3)
- BIOL 4165 Environmental Adaptations (3)
- BIOL 4170 Comparative Animal Physiology (3)
- BIOL 4200 Microbial Morphogenesis (3)
- BIOL 4444 Seed Physiology (3) or
- PLHL 4444 Seed Physiology (3)

### 3) ecology and evolution:

- BIOL 4015 Conservation Biology (4) or
- BIOL 4084 Geomicrobiology (3) or
- GEOL 4084 Geomicrobiology (3)
- BIOL 4090 Marine and Environmental Microbiology (3) or
- OCS 4090 Marine and Environmental Microbiology (3)
- BIOL 4115 Microbial Ecology (3)
- BIOL 4253 Principles of Ecology (3)
- BIOL 4256 Microbial Ecology and Nutrient Cycling in Soils (4) or
- AGRO 4056 Microbial Ecology and Nutrient Cycling in Soils (4) or

- EMS 4056 Microbial Ecology and Nutrient Cycling in Soils (4)
- BIOL 4262 Marine Communities (3)
- BIOL 4308 Plants in Coastal Environments (3) or
- OCS 4308 Plants in Coastal Environments (3)

### 4) organismal diversity:

- BIOL 4002 Insect Biology (3) or
- ENTM 4002 Insect Biology (3)
- BIOL 4020 Taxonomy and Ecology of Wetland Plants (4) or
- RNR 4020 Taxonomy and Ecology of Wetland Plants (4)
- BIOL 4041 Plant Taxonomy (4)
- BIOL 4054 Introductory Mycology (4) or
- PLHL 4054 Introductory Mycology (4)
- BIOL 4084 Geomicrobiology (3) or
- GEOL 4084 Geomicrobiology (3)
- BIOL 4105 Parasitology (3)
- BIOL 4125 Prokaryotic Diversity (3)
- BIOL 4126 Methods in Microbial Diversity (4)
- BIOL 4141 Mammalogy (4)
- BIOL 4142 Ornithology (4)
- BIOL 4145 Ichthyology (4) or
- RNR 4145 Ichthyology (4)
- BIOL 4146 Herpetology (4)
- BIOL 4154 Invertebrate Zoology (4)
- BIOL 4162 Food Microbiology (4) or
- NFS 4162 Food Microbiology (4)
- BIOL 4163 Industrial Microbiology (4) or
- NFS 4163 Industrial Microbiology (4)

### Areas of Concentration

### Marine Biology

### **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001 and CHEM 1201; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 2: "C" or better in BIOL 1201 and MATH 1550; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 3: "C" or better in BIOL 1202 and CHEM 1202; Admission to the College; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 4: "C" or better in CHEM 2261; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 5: "C" or better in BIOL 2051 or BIOL 2153; 2.0 Cumulative, LSU and Semester GPA.

### Semester 1

**CRITICAL:** "C" or better in ENGL 1001 and CHEM 1201; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)
- CHEM 1201 General Chemistry I (3)
- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)

#### **Total Semester Hours: 15**

#### Semester 2

**CRITICAL:** "C" or better in BIOL 1201 and MATH 1550; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1)
- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- OCS 1005 Introduction to Oceanography (3)
- MATH 1552 Analytic Geometry and Calculus II (4) or
- MATH 1554 Calculus II for Life Sciences (4) or
- EXST 2201 Introduction to Statistical Analysis (4)

#### Semester 3

**CRITICAL:** "C" or better in BIOL 1202 and CHEM 1202; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 2051 General Microbiology (4) or
- BIOL 2153 Principles of Genetics (4)
- CHEM 2261 Organic Chemistry (3)
- First Course in Foreign Language Sequence (4)<sup>1</sup>
- General Education courses Humanities (English/Honors at the 2000-level) (3)

**Total Semester Hours: 14** 

#### Semester 4

**CRITICAL:** "C" or better in CHEM 2261; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 2153 Principles of Genetics (4) or
- BIOL 2051 General Microbiology (4)
- ENGL 2000 English Composition (3)
- CHEM 2262 Organic Chemistry (3)
- CHEM 2364 Organic Chemistry Laboratory (2)
- Second Course in Foreign Language Sequence (4)<sup>1</sup>

#### Total Semester Hours: 16

### Semester 5

**CRITICAL:** "C" or better in BIOL 2051 or BIOL 2153; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 4087 Basic Biochemistry (4) or
- BIOL 4093 General Biochemistry I (3) and
- BIOL 4094 General Biochemistry II (3)
- PHYS 2001 General Physics I (3)
- PHYS 2108 Introductory Physics Laboratory (1)
- BIOL 3040 Evolution (3)
- Approved Elective (5-3)

Total Semester Hours: 16

**Total Semester Hours: 16** 

### Semester 6

- PHYS 2002 General Physics II (3)
- PHYS 2109 General Physics Laboratory (1)
- General Education course Social Sciences (3)
- Approved Biological Sciences Electives (6)<sup>3</sup>
- General Education course Arts (3)

#### Total Semester Hours: 16

### Semester 7

- BIOL 4262 Marine Communities (3)
- BIOL 4090 Marine and Environmental Microbiology (3) or
- BIOL 4145 Ichthyology (4) or
- BIOL 4154 Invertebrate Zoology (4)
- Approved Area of Concentration Elective (3)<sup>2</sup>
- Approved Elective (3-4)
- General Education Course Social Sciences (2000-level) (3)

#### **Total Semester Hours: 16**

### Semester 8

- General Education course Humanities (English/Honors 2000-level) (3)
- Approved Area of Concentration Electives (3-2)<sup>2</sup>
- Approved Electives (5-6)

### Total Semester Hours: 11

#### 120 Total Sem. Hrs.

<sup>1</sup> - Option: Complete foreign language requirement (shown in Semester 3 and 4) in Semesters 1 and 2 if continuing in the language studied in high school.

<sup>2</sup> - Choose five to six hours from the following: BIOL 3999, BIOL 4020, BIOL 4090, BIOL 4145, BIOL 4154, BIOL 4155, BIOL 4253, BIOL 4254, BIOL 4263, BIOL 4308.

<sup>3</sup> - See list and requirements for biological sciences electives here.

# Secondary Education - Biological Sciences

### **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001 and CHEM 1201; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 2: "C" or better in BIOL 1201 and MATH 1550; 2.5 Cumulative and LSU GPA; 2.0 Semester GPA. SEMESTER 3: "C" or better in BIOL 1202 and CHEM 1202; Admission to the College; 2.5 Cumulative and LSU GPA; 2.0 Semester GPA. SEMESTER 4: "C" or better in CHEM 2261; 2.5 Cumulative and LSU GPA; 2.0 Semester GPA. SEMESTER 5: "C" or better in BIOL 2051 or BIOL 2153; 2.5 Cumulative and LSU GPA; 2.0 Semester GPA.

This concentration is part of the Geaux Teach–Math and Sciences Program. Students will obtain a degree in biological sciences and, upon completing this concentration, and meeting any additional requirements of the Louisiana Department of Education, will be eligible for certification in the state of Louisiana as teachers in grades 6-12.

### Semester 1

**CRITICAL:** "C" or better in ENGL 1001 and CHEM 1201; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)
- CHEM 1201 General Chemistry I (3)
- BASC 2010 Inquiry Approaches to Math and Science Teaching (1)
- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)

#### **Total Semester Hours: 16**

#### Semester 2

**CRITICAL:** "C" or better in BIOL 1201 and MATH 1550; 2.5 Cumulative and LSU GPA; 2.0 Semester GPA.

• BIOL 1202 Biology for Science Majors II (3)

- BIOL 1209 Biology Laboratory for Science Majors II (1)
- BASC 2011 Inquiry-Based Math and Science Lesson Design (1)
- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- MATH 1552 Analytic Geometry and Calculus II (4) or
- MATH 1554 Calculus II for Life Sciences (4) or
- EXST 2201 Introduction to Statistical Analysis (4)
- General Education course Arts (3)

### Semester 3

**CRITICAL:** "C" or better in BIOL 1202 and CHEM 1202; Admission to the College; 2.5 Cumulative and LSU GPA; 2.0 Semester GPA.

- BIOL 2051 General Microbiology (4) or
- BIOL 2153 Principles of Genetics (4)
- CHEM 2261 Organic Chemistry (3)
- EDCI 2500 Knowing and Learning in Mathematics and Science (3)
- First Course in Foreign Language Sequence (4)<sup>1</sup>
- General Education course Humanities (English/Honors at the 2000-level) (3)

### Total Semester Hours: 17

### Semester 4

**CRITICAL:** "C" or better in CHEM 2261; 2.5 Cumulative and LSU GPA; 2.0 Semester GPA.

- BIOL 2153 Principles of Genetics (4) or
- BIOL 2051 General Microbiology (4)
- EDCI 3550 Classroom Interactions (3)
- CHEM 2262 Organic Chemistry (3)
- CHEM 2364 Organic Chemistry Laboratory (2)
- Second Course in Foreign Language Sequence (4)<sup>1</sup>

#### Total Semester Hours: 16

#### Semester 5

**CRITICAL:** "C" or better in BIOL 2051 or BIOL 2153; 2.5 Cumulative and LSU GPA; 2.0 Semester GPA.

- PHIL 2786 History & Philosophy of Science, Technology, and Mathematics (3)
- PHYS 2001 General Physics I (3)
- PHYS 2108 Introductory Physics Laboratory (1)
- ENGL 2000 English Composition (3)
- BIOL 3040 Evolution (3)
- Approved Biological Sciences Electives (4)<sup>2</sup>

#### Total Semester Hours: 17

### Semester 6

- BIOL 4087 Basic Biochemistry (4) <sup>3</sup>
- BIOL 4003 Science Teaching in Secondary School III: Instructional Strategies in the Sciences (1)
- BIOL 4005 Science Research Methods (3)
- PHYS 2002 General Physics II (3)
- PHYS 2109 General Physics Laboratory (1)
- Approved Biological Sciences Elective (3)<sup>2</sup>

Total Semester Hours: 15

### Semester 7

- EDCI 4500 Instructional Models for Mathematics and Science (3)
- Approved Biological Sciences Electives (7)<sup>2</sup>
- General Education course Social Sciences (3)
- General Education course Humanities (English/Honors 2000-level) (3)

#### **Total Semester Hours: 16**

### Semester 8

- EDCI 3136 Reading in the Content Areas (3)
- EDCI 4006 Student Teaching in Grades 6-12 Mathematics and Sciences (9)

### 126 Total Sem. Hrs.

<sup>1</sup> - Option: Begin foreign language requirement (shown in Semesters 3 and 4) in Semester 1 and 2 if continuing in the language studied in high school.

<sup>2</sup> - See list and requirements for Biological Science electives here.

<sup>3</sup> - Students who have taken both BIOL 4093 and BIOL 4094 may substitute these courses for BIOL 4087.

#### NOTE:

Students must see an advisor in their sophomore year.

EDCI 2500 will count as one of the general education social science courses. Students should plan their course work so that last semester of the senior year can accommodate the 12 hours that are required to be taken concurrently (EDCI 4006 and EDCI 3136).

This concentration requires a total of 126 hours for the degree.

### Microbiology, B.S.

### Microbiology

### **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001 and CHEM 1201; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 2: "C" or better in BIOL 1201 and MATH 1550; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 3: "C" or better in BIOL 1202 and CHEM 1202; Admission to the College; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 4: "C" or better in BIOL 2051; CHEM 2261; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 5: "C" or better in BIOL 2153; 2.0 Cumulative, LSU and Semester GPA.

### Semester 1

**CRITICAL:** "C" or better in ENGL 1001 and CHEM 1201; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)
- CHEM 1201 General Chemistry I (3)
- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)

### **Total Semester Hours: 15**

### Semester 2

**CRITICAL:** "C" or better in BIOL 1201 and MATH 1550; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1)
- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- MATH 1552 Analytic Geometry and Calculus II
   (4) or
- MATH 1554 Calculus II for Life Sciences (4) or
- EXST 2201 Introduction to Statistical Analysis (4)
- General Education course Arts (3)

### Total Semester Hours: 16

### Semester 3

**CRITICAL:** "C" or better in BIOL 1202 and CHEM 1202; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 2051 General Microbiology (4) or
- BIOL 2153 Principles of Genetics (4)
- CHEM 2261 Organic Chemistry (3)
- General Education course Humanities (English/Honors 2000-level) (3)
- First Course in Foreign Language Sequence (4)<sup>1</sup>

### **Total Semester Hours: 14**

### Semester 4

**CRITICAL:** "C" or better in BIOL 2051; CHEM 2261; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 2153 Principles of Genetics (4) or
- BIOL 2051 General Microbiology (4)
- CHEM 2262 Organic Chemistry (3)
- ENGL 2000 English Composition (3)
- Second Course in Foreign Language Sequence (4)<sup>1</sup>
- Approved Elective (2)

### Total Semester Hours: 16

### Semester 5

**CRITICAL:** "C" or better in BIOL 2153; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 3116 Advanced Microbiology Laboratory (3)
- CHEM 2364 Organic Chemistry Laboratory (2)
- PHYS 2001 General Physics I (3)
- PHYS 2108 Introductory Physics Laboratory (1)
- General Education course Social Sciences (3)
- General Education course Humanities (English/Honors 2000-level) (3)

### **Total Semester Hours: 15**

### Semester 6

- BIOL 4110 Introductory Microbial Physiology (3)
- BIOL 3040 Evolution (3)
- PHYS 2002 General Physics II (3)
- PHYS 2109 General Physics Laboratory (1)
- Approved Microbiology Elective (3)<sup>3</sup>
- Approved Elective (3)

### **Total Semester Hours: 16**

### Semester 7

- BIOL 4087 Basic Biochemistry (4)<sup>2</sup>
- BIOL 4246 Microbial Genetics (3)
- Approved Microbiology Electives (4)<sup>3</sup>
- General Education course Social Sciences (2000-level) (3)

### Total Semester Hours: 14

### Semester 8

- BIOL 4115 Microbial Ecology (3) or
- BIOL 4125 Prokaryotic Diversity (3)
- Approved Microbiology Elective (3)<sup>3</sup>
- Approved Electives (8)

### Total Semester Hours: 14

### 120 Total Sem. Hrs.

<sup>1</sup> - OPTION: Begin foreign language requirement (shown in Semesters 3 and 4) in Semester 2 if continuing in the language studied in high school.

<sup>2</sup> - Option: BIOL 4087 or BIOL 4093 and BIOL 4094. If student takes BIOL 4093 and BIOL 4094, two hours will apply toward the approved free electives.

<sup>3</sup> - APPROVED MICROBIOLOGY ELECTIVES must come from the following list and include two laboratory courses:

- BIOL 3090 Cell Biology (3)
- BIOL 3999 Undergraduate Research in Biological Sciences (1-3)
- BIOL 4054 Introductory Mycology (4) or
- PLHL 4054 Introductory Mycology (4)
- BIOL 4084 Geomicrobiology (3) or
- GEOL 4084 Geomicrobiology (3)
- BIOL 4090 Marine and Environmental Microbiology (3) or
- OCS 4090 Marine and Environmental Microbiology (3)
- BIOL 4105 Parasitology (3)
- BIOL 4106 Parasitology Laboratory (1)

- BIOL 4115 Microbial Ecology (3)
- BIOL 4123 Immunology (3)
- BIOL 4124 Microbial Pathogens (3)
- BIOL 4125 Prokaryotic Diversity (3)
- BIOL 4126 Methods in Microbial Diversity (4)
- BIOL 4132 Eukaryotic Molecular Genetics (3)
- BIOL 4162 Food Microbiology (4) or
- NFS 4162 Food Microbiology (4)
- BIOL 4163 Industrial Microbiology (4) or
- NFS 4163 Industrial Microbiology (4)
- BIOL 4190 Introductory Virology (3)
- BIOL 4200 Microbial Morphogenesis (3)
- BIOL 4215 Molecular Biology of Bacterial Disease (3)
- BIOL 4400 Molecular Genetics Laboratory (3)

# **Department of Chemistry**

OFFICE	232 Choppin Hall
TELEPHONE	225-578-3361
FAX	225-578-3458
WEBSITE	http://chemistry.lsu.edu

Students obtain a thorough working knowledge of the fundamentals of chemistry, supplemented by study in physics, mathematics, and other sciences. The curriculum is further enriched by the requirement of a broad basic background in the social sciences and humanities. The department offers special lecture and laboratory courses for its majors.

Chemistry majors must select one of nine areas of concentration, preferably in their sophomore year. The different concentrations can be grouped according to whether or not they prepare the student for an *active career in chemistry* or for *another profession*, such as medicine, dentistry, or veterinary medicine.

Active Careers in Chemistry • These concentrations are recommended for students who seek a professional career in chemistry or plan to pursue graduate studies in chemistry or a closely related field. The areas of concentration listed in this section are certified by the American Chemical Society. Students successfully completing those concentrations will receive a certificate upon graduation. The chemistry concentration provides a broad background in chemistry. It is recommended to students who desire a career in chemistry but do not yet know which branch of chemistry best suits them. The biological chemistry concentration ties knowledge of chemistry to the structure of living systems. The chemical physics concentration investigates chemical systems based on fundamental physical, mathematical, and theoretical principles. The environmental chemistry concentration emphasizes chemistry in various environmental fields. The materials concentration connects chemistry and materials used in electronic, optical, and other devices. The polymer concentration explores synthetic and biological macromolecules, including plastics.

The secondary education concentration leads to certification as a chemistry teacher in grades seven through 12.

**Chemistry for Other Professions** • The *pre-professional* concentration is designed primarily for students who will apply for graduate education in another profession, such as medicine, dentistry, or veterinary medicine. The *chemistry and a second discipline* concentration allows students to develop their interests and abilities in other disciplines outside of chemistry, whether or not graduate education is contemplated. Students may choose second disciplines such as computer science, geology, engineering, business administration, history, foreign languages, political science, and others.

### **Chemistry Minor**

Requirements are a minimum of 23 semester hours of chemistry: CHEM 1201, CHEM 1202, CHEM 1212 (or CHEM 1421, CHEM 1422, CHEM 1431) and a minimum of 15 semester hours at 2000 level or above. These additional 15 hours must include a two to three semester laboratory course and at least six semester hours at the 3000 level or above. The following courses cannot be taken to meet the requirements of the *minor in Chemistry*: CHEM 2900, CHEM 3900, CHEM 4003, and CHEM 4005. Interested students should contact the Undergraduate Chemistry Office.

### Chemistry, B.S.

# Areas of Concentration

### **Biological Chemistry**

### **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001 and CHEM 1201/CHEM 1421; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 2: "C" or better in MATH 1550/MATH 1551; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 3: "C" or better in CHEM 1212/CHEM 1431 and MATH 1552; Admission to the College; 2.0

Cumulative, LSU and Semester GPA.

SEMESTER 4: "C" or better in CHEM 2261/CHEM 2461 and PHYS 2110; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 5: "C" or better in CHEM 2262/CHEM 2462 and PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

Students completing this concentration will receive American Chemical Society certification.

### Semester 1

**CRITICAL:** "C" or better in ENGL 1001 and CHEM 1201/CHEM 1421; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)
- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- CHEM 1201 General Chemistry I (3) or
- CHEM 1421 HONORS: General Chemistry (3)

### **Total Semester Hours: 15**

### Semester 2

**CRITICAL:** "C" or better in MATH 1550/MATH 1551; 2.0 Cumulative, LSU and Semester GPA.

• BIOL 1202 Biology for Science Majors II (3)

- BIOL 1209 Biology Laboratory for Science Majors II (1)
- CHEM 1202 General Chemistry (3) or
- CHEM 1422 HONORS: General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
   or
- CHEM 1431 HONORS: General Chemistry Laboratory (2)
- MATH 1552 Analytic Geometry and Calculus II (4)
- General Education course Arts (3)

### Total Semester Hours: 16

### Semester 3

**CRITICAL:** "C" or better in CHEM 1212/CHEM 1431 and MATH 1552; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

- CHEM 2001 Analytical Chemistry (3)
- CHEM 2002 Analytical Chemistry Laboratory (1)
- MATH 2057 Multidimensional Calculus (3)
- PHYS 2110 Particle Mechanics (3)
- PHYS 2108 Introductory Physics Laboratory (1)
- CHEM 2261 Organic Chemistry (3) or
- CHEM 2461 HONORS: Organic Chemistry I (3)
- Approved Elective (3)

### Total Semester Hours: 17

### Semester 4

**CRITICAL:** "C" or better in CHEM 2261/CHEM 2461 and PHYS 2110; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 2000 English Composition (3)
- PHYS 2113 Fields: Gravity, Electricity, and Magnetism (3)
- PHYS 2109 General Physics Laboratory (1)

- CHEM 2262 Organic Chemistry (3) or
- CHEM 2462 HONORS: Organic Chemistry II (3)
- CHEM 2364 Organic Chemistry Laboratory (2) or
- CHEM 2463 HONORS: Organic Chemistry Laboratory (2)
- Approved Elective (3)

### Semester 5

**CRITICAL:** "C" or better in CHEM 2262/CHEM 2462 and PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

- CHEM 3491 Physical Chemistry I (3)
- PHYS 2112 Fluids, Thermodynamics, Waves, and Modern Physics (3)
- BIOL 2051 General Microbiology (4) or
- BIOL 2153 Principles of Genetics (4)
- First Course in Foreign Language Sequence (4)

**Total Semester Hours: 14** 

### Semester 6

- CHEM 3492 Physical Chemistry II (3)
- CHEM 3493 Physical Chemistry Laboratory (3)
- CHEM 4564 Advanced Organic and Inorganic Laboratory (3)
- General Education course- Humanities (English/HNRS 2000-level) or Second Course in Foreign Language Sequence (3-4)
- General Education course Social Sciences (3)<sup>1</sup>

### Total Semester Hours: 15-16

### Semester 7

- BIOL 4093 General Biochemistry I (3)
- CHEM 4552 Instrumental Characterization of Organic Compounds (2)
- CHEM 4570 Inorganic Chemistry (3)

- BIOL 3999 Undergraduate Research in Biological Sciences (1-3) or
- CHEM 3900 Research in Chemistry (1-3)<sup>2</sup>
- General Education course Humanities (ENGL/HNRS 2000-level) (3)

### **Total Semester Hours: 13**

### Semester 8

- BIOL 4094 General Biochemistry II (3)
- BIOL 4385 Biochemistry Laboratory (3)
- CHEM 4553 Instrumental Characterization of Organic Compounds Lab (2)
- Approved Electives (4-3)
- General Education course Social Sciences (3)<sup>1</sup>

Total Semester Hours: 15-14

### 120 Total Sem. Hrs.

<sup>1</sup> - One General Education Social Science course must be at least 2000-level.

<sup>2</sup> - CHEM 3900 in an approved biological chemistry project or BIOL 3999 including a comprehensive written report filed with the Department of Chemistry's Undergraduate Office.

\*\*The biological chemistry, pre-professional, and secondary education concentrations also require BIOL 1208 and BIOL 1209 laboratories.

# Chemistry

### **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001 and CHEM 1201/CHEM 1421; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 2: "C" or better in MATH 1550/MATH 1551; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 3: "C" or better in CHEM 1212/CHEM 1431 and MATH 1552; Admission to the College; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 4: "C" or better in CHEM 2261/CHEM 2461 and PHYS 2110; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 5: "C" or better in CHEM 2262/CHEM 2462 and PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

Recommended for preparation as a chemical professional or for entrance to graduate study in chemistry. Students completing this concentration will receive American Chemical Society certification.

### Semester 1

**CRITICAL:** "C" or better in ENGL 1001 and CHEM 1201/CHEM 1421; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1201 Biology for Science Majors I (3)
- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- CHEM 1201 General Chemistry I (3) or
- CHEM 1421 HONORS: General Chemistry (3)
- General Education course Arts (3)

Total Semester Hours: 17

### Semester 2

**CRITICAL:** "C" or better in MATH 1550/MATH 1551; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1202 Biology for Science Majors II (3)
- MATH 1552 Analytic Geometry and Calculus II (4)
- CHEM 1202 General Chemistry (3) or
- CHEM 1422 HONORS: General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2) or
- CHEM 1431 HONORS: General Chemistry Laboratory (2)
- Approved Elective (3)

Total Semester Hours: 15

Semester 3

**CRITICAL:** "C" or better in CHEM 1212/CHEM 1431 and MATH 1552; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

- CHEM 2001 Analytical Chemistry (3)
- CHEM 2002 Analytical Chemistry Laboratory (1)
- MATH 2057 Multidimensional Calculus (3)
- PHYS 2110 Particle Mechanics (3)
- PHYS 2108 Introductory Physics Laboratory (1)
- CHEM 2261 Organic Chemistry (3) or
- CHEM 2461 HONORS: Organic Chemistry I (3)
- Approved Elective (3)

#### **Total Semester Hours: 17**

#### Semester 4

**CRITICAL:** "C" or better in CHEM 2261/CHEM 2461 and PHYS 2110; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 2000 English Composition (3)
- PHYS 2113 Fields: Gravity, Electricity, and Magnetism (3)
- PHYS 2109 General Physics Laboratory (1)
- CHEM 2262 Organic Chemistry (3) or
- CHEM 2462 HONORS: Organic Chemistry II (3)
- CHEM 2364 Organic Chemistry Laboratory (2) or
- CHEM 2463 HONORS: Organic Chemistry Laboratory (2)
- Computer Science Programming Course (3)

**Total Semester Hours: 15** 

### Semester 5

**CRITICAL:** "C" or better in CHEM 2262/CHEM 2462 and PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

• BIOL 2083 The Elements of Biochemistry (3)

- PHYS 2112 Fluids, Thermodynamics, Waves, and Modern Physics (3)
- CHEM 3491 Physical Chemistry I (3)
- First Course in Foreign Language Sequence (4)
- General Education course Humanities (English/honors 2000-level) (3)

### Semester 6

- CHEM 3492 Physical Chemistry II (3)
- CHEM 3493 Physical Chemistry Laboratory (3)
- General Education course Humanities (English/honors 2000-level) or Second Course in Foreign Language Sequence (3-4)
- Approved Electives (4-3)

### Total Semester Hours: 13

### Semester 7

- CHEM 3900 Research in Chemistry (1-3)<sup>2</sup>
- CHEM 4552 Instrumental Characterization of Organic Compounds (2)
- CHEM 4570 Inorganic Chemistry (3)
- General Education course Social Sciences (3)<sup>1</sup>
- Chemistry Elective (3)<sup>3</sup>

### Total Semester Hours: 13

### Semester 8

- CHEM 4553 Instrumental Characterization of Organic Compounds Lab (2)
- CHEM 4564 Advanced Organic and Inorganic Laboratory (3)
- CHEM 4571 Organometallic Chemistry (3)
- Chemistry Elective (3)<sup>3</sup>
- General Education course Social Sciences (3)<sup>1</sup>

### Total Semester Hours: 14

### 120 Total Sem. Hrs.

<sup>1</sup> - One General Education Social Science course must be at least 2000-level.

<sup>2</sup> - Two semester hours of CHEM 3900 in an approved chemistry project.

<sup>3</sup> - CHEMISTRY ELECTIVES: CHEM 3900 (additional hours), CHEM 4010, CHEM 4011, CHEM 4150, CHEM 4160, CHEM 4556, CHEM 4557, CHEM 4558, CHEM 4559, CHEM 4561, CHEM 4562, CHEM 4563, CHEM 4571, CHEM 4581, CHEM 4594, CHEM 4597.

# **Chemical Physics**

### **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001 and CHEM 1201/CHEM 1421; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 2: "C" or better in MATH 1550/MATH 1551; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 3: "C" or better in CHEM 1212/CHEM 1431 and MATH 1552; Admission to the College; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 4: "C" or better in CHEM 2261/CHEM 2461 and PHYS 2110; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 5: "C" or better in CHEM 2262/CHEM 2462 and PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

Students completing this concentration will receive American Chemical Society certification.

### Semester 1

**CRITICAL:** "C" or better in ENGL 1001 and CHEM 1201/CHEM 1421; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1201 Biology for Science Majors I (3)
- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- CHEM 1201 General Chemistry I (3) or
- CHEM 1421 HONORS: General Chemistry (3)
- General Education course Arts (3)

### Total Semester Hours: 17

### Semester 2

**CRITICAL:** "C" or better in MATH 1550/MATH 1551; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1202 Biology for Science Majors II (3)
- MATH 1552 Analytic Geometry and Calculus II (4)
- CHEM 1202 General Chemistry (3) or
- CHEM 1422 HONORS: General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2) or
- CHEM 1431 HONORS: General Chemistry Laboratory (2)
- Approved Elective (3)

### **Total Semester Hours: 15**

### Semester 3

**CRITICAL:** "C" or better in CHEM 1212/CHEM 1431 and MATH 1552; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

- CHEM 2001 Analytical Chemistry (3)
- CHEM 2002 Analytical Chemistry Laboratory (1)
- MATH 2057 Multidimensional Calculus (3)
- PHYS 2110 Particle Mechanics (3)
- PHYS 2108 Introductory Physics Laboratory (1)
- CHEM 2261 Organic Chemistry (3) or
- CHEM 2461 HONORS: Organic Chemistry I (3)
- Approved Elective (3)

Total Semester Hours: 17

### Semester 4

**CRITICAL:** "C" or better in CHEM 2261/CHEM 2461 and PHYS 2110; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 2000 English Composition (3)
- PHYS 2113 Fields: Gravity, Electricity, and Magnetism (3)

- PHYS 2109 General Physics Laboratory (1)
- CHEM 2262 Organic Chemistry (3) or
- CHEM 2462 HONORS: Organic Chemistry II (3)
- CHEM 2364 Organic Chemistry Laboratory (2) or
- CHEM 2463 HONORS: Organic Chemistry Laboratory (2)
- MATH 2065 Elementary Differential Equations (3) or
- MATH 2085 Linear Algebra (3) or
- MATH 2090 Elementary Differential Equations and Linear Algebra (4)

### Total Semester Hours: 15-16

### Semester 5

**CRITICAL:** "C" or better in CHEM 2262/CHEM 2462 and PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

- CHEM 3491 Physical Chemistry I (3)
- Computer Science Programming Course (3)
- First Course in Foreign Language Sequence (4)
- General Education course Humanities (English/Honors 2000-level) (3)
- PHYS 2112 Fluids, Thermodynamics, Waves, and Modern Physics (3)

### Total Semester Hours: 16

### Semester 6

- CHEM 3492 Physical Chemistry II (3)
- CHEM 3493 Physical Chemistry Laboratory (3)
- General Education course Humanities (English/Honors 2000-level) or Second Course in Foreign Language Sequence (3-4)
- Physics Elective (3)<sup>4</sup>

### Total Semester Hours: 12-13

### Semester 7

• CHEM 3900 Research in Chemistry (1-3)<sup>2</sup>

- CHEM 4552 Instrumental Characterization of Organic Compounds (2)
- CHEM 4570 Inorganic Chemistry (3)
- Physics Elective (3)<sup>4</sup>
- General Education course Social Sciences (3)<sup>1</sup>

### Semester 8

- CHEM 4553 Instrumental Characterization of Organic Compounds Lab (2)
- BIOL 2083 The Elements of Biochemistry (3)
- Chemistry Elective (3)<sup>3</sup>
- Approved Electives (3-1)
- General Education course Social Sciences (3)<sup>1</sup>

### Total Semester Hours: 14-12

### 120 Total Sem. Hrs.

<sup>1</sup> - One General Education Social Science course must be at least 2000-level.

<sup>2</sup> - Three semester hours of CHEM 3900 in an approved physical chemistry project.

<sup>3</sup> - Chemistry Electives: CHEM 4581, CHEM 4594, CHEM 4596, CHEM 4597.

<sup>4</sup> - Physics Electives: PHYS 2221, PHYS 2231, PHYS 2411, PHYS 4123, PHYS 4125, PHYS 4141, PHYS 4142, PHYS 4261.

# Chemistry & Second Discipline

### **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001 and CHEM 1201/CHEM 1421; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 2: "C" or better in MATH 1550/MATH 1551; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 3: "C" or better in CHEM 1212/CHEM 1431 and MATH 1552; Admission to the College; 2.0

Cumulative, LSU and Semester GPA.

SEMESTER 4: "C" or better in CHEM 2261/CHEM 2461 and PHYS 2110; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 5: "C" or better in CHEM 2262/CHEM 2462 and PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

### Semester 1

**CRITICAL:** "C" or better in ENGL 1001 and CHEM 1201/CHEM 1421; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1201 Biology for Science Majors I (3)
- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- CHEM 1201 General Chemistry I (3) or
- CHEM 1421 HONORS: General Chemistry (3)
- General Education course Arts (3)

### Total Semester Hours: 17

### Semester 2

**CRITICAL:** "C" or better in MATH 1550/MATH 1551; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1202 Biology for Science Majors II (3)
- MATH 1552 Analytic Geometry and Calculus II (4)
- CHEM 1202 General Chemistry (3) or
- CHEM 1422 HONORS: General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2) or
- CHEM 1431 HONORS: General Chemistry Laboratory (2)
- Approved Elective (3)

### **Total Semester Hours: 15**

### Semester 3

**CRITICAL:** "C" or better in CHEM 1212/CHEM 1431 and MATH 1552; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

- CHEM 2001 Analytical Chemistry (3)
- CHEM 2002 Analytical Chemistry Laboratory (1)
- MATH 2057 Multidimensional Calculus (3)
- PHYS 2110 Particle Mechanics (3)
- PHYS 2108 Introductory Physics Laboratory (1)
- CHEM 2261 Organic Chemistry (3) or
- CHEM 2461 HONORS: Organic Chemistry I (3)
- Approved Elective (3)

### Semester 4

**CRITICAL:** "C" or better in CHEM 2261/CHEM 2461 and PHYS 2110; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 2000 English Composition (3)
- PHYS 2113 Fields: Gravity, Electricity, and Magnetism (3)
- PHYS 2109 General Physics Laboratory (1)
- CHEM 2262 Organic Chemistry (3) or
- CHEM 2462 HONORS: Organic Chemistry II (3)
- CHEM 2364 Organic Chemistry Laboratory (2) or
- CHEM 2463 HONORS: Organic Chemistry Laboratory (2)
- Second Discipline Course (3)<sup>2</sup>

### **Total Semester Hours: 15**

### Semester 5

**CRITICAL:** "C" or better in CHEM 2262/CHEM 2462 and PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

- CHEM 3491 Physical Chemistry I (3)
- Second Discipline Course (3)<sup>2</sup>
- First Course in Foreign Language Sequence (4)
- General Education course Humanities (English/honors 2000-level) (3)

• PHYS 2112 Fluids, Thermodynamics, Waves, and Modern Physics (3)

### Total Semester Hours: 16

### Semester 6

- CHEM 3492 Physical Chemistry II (3)
- CHEM 3493 Physical Chemistry Laboratory (3)
- General Education course Humanities (English/honors 2000-level) or Second Course in Foreign Language Sequence (3-4)
- Approved Elective (4-3)

### **Total Semester Hours: 13**

### Semester 7

- CHEM 3900 Research in Chemistry (1-3) <sup>3</sup>
- CHEM 4552 Instrumental Characterization of Organic Compounds (2)
- CHEM 4570 Inorganic Chemistry (3)
- Second Discipline Course (3)<sup>2</sup>
- General Education course Social Sciences (3)<sup>1</sup>

### Total Semester Hours: 13

### Semester 8

- CHEM 4553 Instrumental Characterization of Organic Compounds Lab (2)
- Second Discipline Courses (6)<sup>2</sup>
- Approved Electives (3)
- General Education course Social Sciences (3)<sup>1</sup>

### Total Semester Hours: 14

### 120 Total Sem. Hrs.

<sup>1</sup> - One General Education Social Science course must be at least 2000-level.

<sup>2</sup> - Second discipline courses: Courses should form a coherent sequence in one department with at least three courses numbered 3000 or above. If courses are from more than one department, student must obtain a minor in that discipline. Selection of the concentration courses should be

completed and approved by the department and dean's office by the end of the sophomore year.

<sup>3</sup> - Two semester hours of CHEM 3900 in an approved chemistry project.

# **Environmental Chemistry**

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001 and CHEM 1201/CHEM 1421; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 2: "C" or better in MATH 1550/MATH 1551; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 3: "C" or better in CHEM 1212/CHEM 1431 and MATH 1552; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 4: "C" or better in CHEM 2261/CHEM 2461 and PHYS 2110; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 5: "C" or better in CHEM 2262/CHEM 2462 and PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

Students completing this concentration will receive American Chemical Society certification.

# Semester 1

**CRITICAL:** "C" or better in ENGL 1001 and CHEM 1201/CHEM 1421; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1201 Biology for Science Majors I (3)
- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- CHEM 1201 General Chemistry I (3) or
- CHEM 1421 HONORS: General Chemistry (3)
- General Education course Arts (3)

## Total Semester Hours: 17

## Semester 2

**CRITICAL:** "C" or better in MATH 1550/MATH 1551; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1202 Biology for Science Majors II (3)
- MATH 1552 Analytic Geometry and Calculus II (4)
- CHEM 1202 General Chemistry (3) or
- CHEM 1422 HONORS: General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2) or
- CHEM 1431 HONORS: General Chemistry Laboratory (2)
- Approved Elective (3)

## **Total Semester Hours: 15**

# Semester 3

**CRITICAL:** "C" or better in CHEM 1212/CHEM 1431 and MATH 1552; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

- CHEM 2001 Analytical Chemistry (3)
- CHEM 2002 Analytical Chemistry Laboratory (1)
- MATH 2057 Multidimensional Calculus (3)
- PHYS 2110 Particle Mechanics (3)
- PHYS 2108 Introductory Physics Laboratory (1)
- CHEM 2261 Organic Chemistry (3) or
- CHEM 2461 HONORS: Organic Chemistry I (3)
- Approved Elective (3)

## Total Semester Hours: 17

## Semester 4

**CRITICAL:** "C" or better in CHEM 2261/CHEM 2461 and PHYS 2110; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 2000 English Composition (3)
- PHYS 2113 Fields: Gravity, Electricity, and Magnetism (3)
- PHYS 2109 General Physics Laboratory (1)

- CHEM 2262 Organic Chemistry (3) or
- CHEM 2462 HONORS: Organic Chemistry II (3)
- CHEM 2364 Organic Chemistry Laboratory (2) or
- CHEM 2463 HONORS: Organic Chemistry Laboratory (2)
- Computer Science Programming Course (3)

## Semester 5

**CRITICAL:** "C" or better in CHEM 2262/CHEM 2462 and PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 2083 The Elements of Biochemistry (3)
- PHYS 2112 Fluids, Thermodynamics, Waves, and Modern Physics (3)
- CHEM 3491 Physical Chemistry I (3)
- First Course in Foreign Language Sequence (4)
- General Education course Humanities (English/honors 2000-level) (3)

## **Total Semester Hours: 16**

# Semester 6

- CHEM 3492 Physical Chemistry II (3)
- CHEM 3493 Physical Chemistry Laboratory (3)
- CHEM 4150 Environmental Chemistry (3)
- General Education course Humanities (English/honors 2000-level) or Second Course in Foreign Language Sequence (3-4)

# Total Semester Hours: 12-13

# Semester 7

- CHEM 3900 Research in Chemistry (1-3)<sup>3</sup>
- CHEM 4552 Instrumental Characterization of Organic Compounds (2)
- CHEM 4570 Inorganic Chemistry (3)
- General Education course Social Sciences (3)<sup>1</sup>
- Environmental Elective (3)<sup>2</sup>

## **Total Semester Hours: 13**

## Semester 8

- CHEM 4553 Instrumental Characterization of Organic Compounds Lab (2)
- Environmental Elective (3)<sup>2</sup>
- Approved Electives (7-6)
- General Education course Social Sciences (3)<sup>1</sup>

# Total Semester Hours: 15-14

# 120 Total Sem. Hrs.

<sup>1</sup> - One General Education Social Science course must be at least 2000-level.

<sup>2</sup> - Environmental Electives: EVEG 3145; ENVS 4500, ENVS 4477; GEOL 4043, GEOL 4081; OCS 4165.

<sup>3</sup> - Two semester hours in CHEM 3900 in an approved environmental chemistry project.

# Materials

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001 and CHEM 1201/CHEM 1421; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 2: "C" or better in MATH 1550/MATH 1551; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 3: "C" or better in CHEM 1212/CHEM 1431 and MATH 1552; Admission to the College; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 4: "C" or better in CHEM 2261/CHEM 2461 and PHYS 2110; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 5: "C" or better in CHEM 2262/CHEM 2462 and PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

Students completing this concentration will receive American Chemical Society certification.

# Semester 1

**CRITICAL:** "C" or better in ENGL 1001 and CHEM 1201/CHEM 1421; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1201 Biology for Science Majors I (3)
- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- CHEM 1201 General Chemistry I (3) or
- CHEM 1421 HONORS: General Chemistry (3)
- General Education course Arts (3)

# Semester 2

**CRITICAL:** "C" or better in MATH 1550/MATH 1551; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1202 Biology for Science Majors II (3)
- MATH 1552 Analytic Geometry and Calculus II (4)
- CHEM 1202 General Chemistry (3) or
- CHEM 1422 HONORS: General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2) or
- CHEM 1431 HONORS: General Chemistry Laboratory (2)
- Approved Elective (3)

## Total Semester Hours: 15

## Semester 3

**CRITICAL:** "C" or better in CHEM 1212/CHEM 1431 and MATH 1552; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

- CHEM 2001 Analytical Chemistry (3)
- CHEM 2002 Analytical Chemistry Laboratory (1)
- MATH 2057 Multidimensional Calculus (3)
- PHYS 2110 Particle Mechanics (3)
- PHYS 2108 Introductory Physics Laboratory (1)
- CHEM 2261 Organic Chemistry (3) or

- CHEM 2461 HONORS: Organic Chemistry I (3)
- Approved Elective (3)

## Total Semester Hours: 17

## Semester 4

**CRITICAL:** "C" or better in CHEM 2261/CHEM 2461 and PHYS 2110; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 2000 English Composition (3)
- PHYS 2113 Fields: Gravity, Electricity, and Magnetism (3)
- PHYS 2109 General Physics Laboratory (1)
- ME 2733 Materials of Engineering (3)
- CHEM 2262 Organic Chemistry (3) or
- CHEM 2462 HONORS: Organic Chemistry II (3)
- CHEM 2364 Organic Chemistry Laboratory (2) or
- CHEM 2463 HONORS: Organic Chemistry Laboratory (2)

# Total Semester Hours: 15

# Semester 5

**CRITICAL:** "C" or better in CHEM 2262/CHEM 2462 and PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

- CHEM 3491 Physical Chemistry I (3)
- First Course in Foreign Language Sequence (4)
- General Education course Humanities (English/honors 2000-level) (3)
- Computer Science Programming Course (3)
- PHYS 2112 Fluids, Thermodynamics, Waves, and Modern Physics (3)

## **Total Semester Hours: 16**

# Semester 6

- CHEM 3492 Physical Chemistry II (3)
- CHEM 3493 Physical Chemistry Laboratory (3)

- ME 3701 Materials of Engineering Laboratory (1)
- General Education course Humanities (English/honors 2000-level) or Second Course in Foreign Language Sequence (3-4)
- Approved Elective (3-2)

# Semester 7

- CHEM 3900 Research in Chemistry (1-3)<sup>2</sup>
- CHEM 4010 Macromolecular Systems I (3)
- CHEM 4552 Instrumental Characterization of Organic Compounds (2)
- CHEM 4570 Inorganic Chemistry (3)
- General Education course Social Sciences (3)<sup>1</sup>

# Total Semester Hours: 13

## Semester 8

- CHEM 4553 Instrumental Characterization of Organic Compounds Lab (2)
- CHEM 4564 Advanced Organic and Inorganic Laboratory (3)
- ME 4723 Advanced Materials Analysis (3)
- BIOL 2083 The Elements of Biochemistry (3)
- General Education course Social Sciences (3)<sup>1</sup>

## **Total Semester Hours: 14**

# 120 Total Sem. Hrs.

<sup>1</sup> - One General Education Social Science course must be at least 2000-level.

<sup>2</sup> - Two semester hours of CHEM 3900 in an approved materials chemistry research project.

# Polymers

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001 and CHEM 1201/CHEM 1421; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 2: "C" or better in MATH 1550/MATH 1551;

2.0 Cumulative, LSU and Semester GPA. SEMESTER 3: "C" or better in CHEM 1212/CHEM 1431 and MATH 1552; Admission to the College; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 4: "C" or better in CHEM 2261/CHEM 2461 and PHYS 2110; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 5: "C" or better in CHEM 2262/CHEM 2462 and PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

Students completing this concentration will receive American Chemical Society certification.

# Semester 1

**CRITICAL:** "C" or better in ENGL 1001 and CHEM 1201/CHEM 1421; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1201 Biology for Science Majors I (3)
- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- CHEM 1201 General Chemistry I (3) or
- CHEM 1421 HONORS: General Chemistry (3)
- General Education course Arts (3)

## **Total Semester Hours: 17**

## Semester 2

**CRITICAL:** "C" or better in MATH 1550/MATH 1551; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1202 Biology for Science Majors II (3)
- MATH 1552 Analytic Geometry and Calculus II (4)
- CHEM 1202 General Chemistry (3) or
- CHEM 1422 HONORS: General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2) or
- CHEM 1431 HONORS: General Chemistry Laboratory (2)
- Approved Elective (3)

# Semester 3

**CRITICAL:** "C" or better in CHEM 1212/CHEM 1431 and MATH 1552; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

- CHEM 2001 Analytical Chemistry (3)
- CHEM 2002 Analytical Chemistry Laboratory (1)
- MATH 2057 Multidimensional Calculus (3)
- PHYS 2110 Particle Mechanics (3)
- PHYS 2108 Introductory Physics Laboratory (1)
- CHEM 2261 Organic Chemistry (3) or
- CHEM 2461 HONORS: Organic Chemistry I (3)
- Approved Elective (3)

Total Semester Hours: 17

## Semester 4

**CRITICAL:** "C" or better in CHEM 2261/CHEM 2461 and PHYS 2110; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 2000 English Composition (3)
- PHYS 2113 Fields: Gravity, Electricity, and Magnetism (3)
- PHYS 2109 General Physics Laboratory (1)
- CHEM 2262 Organic Chemistry (3) or
- CHEM 2462 HONORS: Organic Chemistry II (3)
- CHEM 2364 Organic Chemistry Laboratory (2) or
- CHEM 2463 HONORS: Organic Chemistry Laboratory (2)
- Computer Science Programming Course (3)

## Total Semester Hours: 15

# Semester 5

**CRITICAL:** "C" or better in CHEM 2262/CHEM 2462 and PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 2083 The Elements of Biochemistry (3)
- PHYS 2112 Fluids, Thermodynamics, Waves, and Modern Physics (3)
- CHEM 3491 Physical Chemistry I (3)
- First Course in Foreign Language Sequence (4)
- General Education course Humanities (English/honors 2000-level) (3)

## **Total Semester Hours: 16**

# Semester 6

- CHEM 3492 Physical Chemistry II (3)
- CHEM 3493 Physical Chemistry Laboratory (3)
- General Education course Humanities (English/honors 2000-level) or Second Course in Foreign Language Sequence (3-4)
- Approved Elective (4-3)

# Total Semester Hours: 13

# Semester 7

- CHEM 3900 Research in Chemistry (1-3)<sup>2</sup>
- CHEM 4010 Macromolecular Systems I (3)
- CHEM 4552 Instrumental Characterization of Organic Compounds (2)
- CHEM 4570 Inorganic Chemistry (3)
- General Education course Social Sciences (3)<sup>1</sup>

# Total Semester Hours: 13

# Semester 8

- CHEM 4553 Instrumental Characterization of Organic Compounds Lab (2)
- CHEM 4011 Macromolecular Systems II (3)
- CHEM 4564 Advanced Organic and Inorganic Laboratory (3)
- Approved Electives (3)
- General Education course Social Sciences (3)<sup>1</sup>

# Total Semester Hours: 14

# 120 Total Sem. Hrs.

<sup>1</sup> - One General Education Social Science course must be at least 2000-level.

<sup>2</sup> - Two semester hours of CHEM 3900 in an approved materials chemistry research project.

# **Pre-Professional Chemistry**

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001 and CHEM 1201/CHEM 1421; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 2: "C" or better in MATH 1550/MATH 1551; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 3: "C" or better in CHEM 1212/CHEM 1431 and MATH 1552; Admission to the College; 2.0

Cumulative, LSU and Semester GPA.

SEMESTER 4: "C" or better in CHEM 2261/CHEM 2461 and PHYS 2110; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 5: "C" or better in CHEM 2262/CHEM 2462 and PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

## Semester 1

**CRITICAL:** "C" or better in ENGL 1001 and CHEM 1201/CHEM 1421; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)
- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- CHEM 1201 General Chemistry I (3) or
- CHEM 1421 HONORS: General Chemistry (3)

## Total Semester Hours: 15

# Semester 2

**CRITICAL:** "C" or better in MATH 1550/MATH 1551; 2.0 Cumulative, LSU and Semester GPA.

• BIOL 1202 Biology for Science Majors II (3)

- BIOL 1209 Biology Laboratory for Science Majors II (1)
- MATH 1552 Analytic Geometry and Calculus II

   (4)
- CHEM 1202 General Chemistry (3) or
- CHEM 1422 HONORS: General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
   or
- CHEM 1431 HONORS: General Chemistry Laboratory (2)
- General Education course Arts (3)

## **Total Semester Hours: 16**

# Semester 3

**CRITICAL:** "C" or better in CHEM 1212/CHEM 1431 and MATH 1552; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

- CHEM 2001 Analytical Chemistry (3)
- CHEM 2002 Analytical Chemistry Laboratory (1)
- MATH 2057 Multidimensional Calculus (3)
- PHYS 2110 Particle Mechanics (3)
- PHYS 2108 Introductory Physics Laboratory (1)
- CHEM 2261 Organic Chemistry (3) or
- CHEM 2461 HONORS: Organic Chemistry I (3)
- Approved Elective (3)

# Total Semester Hours: 17

# Semester 4

**CRITICAL:** "C" or better in CHEM 2261/CHEM 2461 and PHYS 2110; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 2000 English Composition (3)
- PHYS 2113 Fields: Gravity, Electricity, and Magnetism (3)
- PHYS 2109 General Physics Laboratory (1)

- CHEM 2262 Organic Chemistry (3) or
- CHEM 2462 HONORS: Organic Chemistry II (3)
- CHEM 2364 Organic Chemistry Laboratory (2) or
- CHEM 2463 HONORS: Organic Chemistry Laboratory (2)
- Approved Elective (3)

# Semester 5

**CRITICAL:** "C" or better in CHEM 2262/CHEM 2462 and PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

- CHEM 3491 Physical Chemistry I (3)
- Pre-Professional Electives (4)<sup>1</sup>
- First Course in Foreign Language Sequence (4)
- General Education course Humanities (English/honors 2000-level) (3)
- PHYS 2112 Fluids, Thermodynamics, Waves, and Modern Physics (3)

# Total Semester Hours: 17

# Semester 6

- CHEM 3492 Physical Chemistry II (3)
- CHEM 3493 Physical Chemistry Laboratory (3)
- General Education course Humanities (English/honors 2000-level) or Second Course in Foreign Language Sequence (3-4)
- Pre-Professional Electives (4)<sup>1</sup>

# Total Semester Hours: 13-14

# Semester 7

- BIOL 4093 General Biochemistry I (3)
- CHEM 4552 Instrumental Characterization of Organic Compounds (2)
- CHEM 4570 Inorganic Chemistry (3)
- General Education course Social Sciences (3)<sup>2</sup>
- Approved Elective (3)

## **Total Semester Hours: 14**

## Semester 8

- BIOL 4094 General Biochemistry II (3)
- BIOL 4385 Biochemistry Laboratory (3)
- CHEM 4553 Instrumental Characterization of Organic Compounds Lab (2)
- Approved Electives (2-1)
- General Education course Social Sciences (3)<sup>2</sup>

## Total Semester Hours: 13-12

# 120 Total Sem. Hrs.

<sup>1</sup> - Preprofessional Electives:BIOL 2051, BIOL 2153, BIOL 3156, BIOL 3152 or BIOL 4160; two semester hours of CHEM 3900 or BIOL 3999 in an approved project.

<sup>2</sup> - One General Education Social Science course must be at least 2000-level.

\*\*The biological chemistry, pre-professional, and secondary education concentrations also require BIOL 1208 and BIOL 1209 laboratories.

# Secondary Education - Chemistry

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001 and CHEM 1201/CHEM 1421; 2.0 Semester GPA; 2.0 Cumulative and LSU GPA.

SEMESTER 2: "C" or better in MATH 1550/MATH 1551; 2.0 Semester GPA; 2.5 Cumulative and LSU GPA.

SEMESTER 3: "C" or better in CHEM 1212/CHEM 1431 and MATH 1552; Admission to the College; 2.0 Semester GPA; 2.5 Cumulative and LSU GPA.

SEMESTER 4: "C" or better in CHEM 2261/CHEM 2461 and PHYS 2110; 2.0 Semester GPA; 2.5 Cumulative and LSU GPA.

SEMESTER 5: "C" or better in CHEM 2262/CHEM 2462 and PHYS 2113; 2.0 Semester GPA; 2.5 Cumulative and LSU GPA.

This concentration is part of the Geaux Teach–Math and Sciences Program. Students will obtain a degree in chemistry and, upon completing this concentration and meeting any additional requirements of the Louisiana Department of Education, will be eligible for certification in the state of Louisiana as teachers in grades 6-12.

# Semester 1

**CRITICAL:** "C" or better in ENGL 1001 and CHEM 1201/CHEM 1421; 2.0 Semester GPA; 2.0 Cumulative and LSU GPA.

- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)
- ENGL 1001 English Composition (3)
- BASC 2010 Inquiry Approaches to Math and Science Teaching (1)
- MATH 1550 Analytic Geometry and Calculus I (5)
- CHEM 1201 General Chemistry I (3) or
- CHEM 1421 HONORS: General Chemistry (3)

# Total Semester Hours: 16

# Semester 2

**CRITICAL:** "C" or better in MATH 1550/MATH 1551; 2.0 Semester GPA; 2.5 Cumulative and LSU GPA.

- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1)
- MATH 1552 Analytic Geometry and Calculus II (4)
- BASC 2011 Inquiry-Based Math and Science Lesson Design (1)
- CHEM 1202 General Chemistry (3) or
- CHEM 1422 HONORS: General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2) or
- CHEM 1431 HONORS: General Chemistry Laboratory (2)
- General Education course Arts (3)

# Total Semester Hours: 17

# Semester 3

**CRITICAL:** "C" or better in CHEM 1212/CHEM 1431 and MATH 1552; Admission to the College; 2.0 Semester GPA; 2.5 Cumulative and LSU GPA.

- CHEM 2001 Analytical Chemistry (3)
- CHEM 2002 Analytical Chemistry Laboratory (1)
- MATH 2057 Multidimensional Calculus (3)
- PHYS 2110 Particle Mechanics (3)
- PHYS 2108 Introductory Physics Laboratory (1)
- EDCI 2500 Knowing and Learning in Mathematics and Science (3)
- CHEM 2261 Organic Chemistry (3) or
- CHEM 2461 HONORS: Organic Chemistry I (3)

## **Total Semester Hours: 17**

# Semester 4

**CRITICAL:** "C" or better in CHEM 2261/CHEM 2461 and PHYS 2110; 2.0 Semester GPA; 2.5 Cumulative and LSU GPA.

- ENGL 2000 English Composition (3)
- PHYS 2113 Fields: Gravity, Electricity, and Magnetism (3)
- PHYS 2109 General Physics Laboratory (1)
- EDCI 3550 Classroom Interactions (3)
- CHEM 2262 Organic Chemistry (3) or
- CHEM 2462 HONORS: Organic Chemistry II (3)
- CHEM 2364 Organic Chemistry Laboratory (2) or
- CHEM 2463 HONORS: Organic Chemistry Laboratory (2)

# Total Semester Hours: 15

# Semester 5

**CRITICAL:** "C" or better in CHEM 2262/CHEM 2462 and PHYS 2113; 2.0 Semester GPA; 2.5 Cumulative and LSU GPA.

- BIOL 2083 The Elements of Biochemistry (3)
- CHEM 3491 Physical Chemistry I (3)
- PHYS 2112 Fluids, Thermodynamics, Waves, and Modern Physics (3)
- First course in foreign language sequence (4)
- General Education course Humanities (ENGL/HNRS 2000-level) (3)

## Semester 6

- CHEM 4005 Science Research Methods (3)
- PHIL 2786 History & Philosophy of Science, Technology, and Mathematics (3)
- CHEM 3492 Physical Chemistry II (3)
- CHEM 3493 Physical Chemistry Laboratory (3)
- General Education course Humanities (English/honors 2000-level) or Second Course in Foreign Language Sequence (3-4)

## Total Semester Hours: 15-16

## Semester 7

- CHEM 4003 Science Teaching in Secondary School III: Instructional Strategies in Science (1)
- EDCI 4500 Instructional Models for Mathematics and Science (3)
- CHEM 4570 Inorganic Chemistry (3)
- General Education course Social Sciences (3)
- Chemistry Elective (3)<sup>1</sup>

#### **Total Semester Hours: 13**

## Semester 8

- EDCI 3136 Reading in the Content Areas (3)
- EDCI 4006 Student Teaching in Grades 6-12 Mathematics and Sciences (9)

**Total Semester Hours: 12** 

121-122 Total Sem. Hrs.

<sup>1</sup> - Chemistry Electives: CHEM 4010, CHEM 4011, CHEM 4150, CHEM 4160, CHEM 4552, CHEM 4553, CHEM 4556, CHEM 4557, CHEM 4558, CHEM 4559, CHEM 4561, CHEM 4562, CHEM 4563 CHEM 4564, CHEM 4571, CHEM 4581, CHEM 4594, CHEM 4597.

In addition, the student must take EDCI 2500 as one of the General Education social science courses. Students should plan their course work so that the last semester of the senior year can accommodate the 12 hours that are required to be taken concurrently (EDCI 4006 and EDCI 3136). BIOL 1208 and BIOL 1209 labs should be included in the freshman year.

# **Department of Geology & Geophysics**

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The geology curriculum prepares undergraduates for graduate study in geology and geophysics and related fields and for a wide range of professional careers, including teaching, research, resource exploration and development, and environmental management and remediation. The curriculum has three areas of concentration: geology, environmental geology, and geophysics. All three areas are designed to provide students with a sound foundation in geology and to prepare them for entry into a graduate program or directly into a professional career.

Geology students in all areas of concentration follow the same basic curriculum during the first four semesters of study. Emphasis for all students is on fundamental geologic processes operating on and within the earth through time. Students during this time receive a firm foundation in mineralogy, the history of the biosphere, petrology, structural geology and sedimentology, as well as basic courses in biology, chemistry, physics, and mathematics. The geophysics concentration has additional emphasis on mathematics and physics starting in the fifth semester. Laboratory and field studies are integrated into the curriculum at all levels and include a six-week field geology course at the department's permanent field camp in the Colorado Front Range, taken ideally between the sixth and seventh semesters.

The curriculum is designed to leave much of the final two to three semesters of study relatively unstructured so that students, with the guidance and approval of the department, can develop a program of advanced course work most appropriate to their area of concentration and career objectives. Students in any concentration area take, in addition to the first five semesters of courses, 12 hours of geology 4000-level electives.

Undergraduate thesis research is encouraged. Geology students may earn a maximum of nine hours of GEOL 3909, which can be followed by GEOL 3999 for the semester that the student defends their undergraduate thesis to a committee. Ideally, the first GEOL 3909 course would be taken in the junior year and continue through the senior year. One 4000-level geology course may be substituted for a minimum of three hours of GEOL 3909 and three hours of GEOL 3999, or the HNRS equivalent for undergraduate thesis research (e.g. HNRS 4000).

For exceptional undergraduate geology majors (overall GPA>3.5), the department offers an accelerated BS - Masters Degree Program. This program bridges the undergraduate program and MS program into a five-year program of study that includes undergraduate research, including a senior thesis, and completing graduate course work while an undergraduate student.

Graduate and undergraduate majors in geology must pay a \$35 field service fee each semester. This fee helps offset courserelated costs, such as transportation costs associated with course field trips and course materials. Part-time students enrolled in seminar courses only and students registered for thesis or dissertation only are exempt from the fee. Additional information concerning fees for field geology courses is available from the Geology field camp director, Department of Geology & Geophysics.

# **Geology Minor**

An undergraduate *minor in geology* is available (20 hours). Required courses are: GEOL 1201, GEOL 1202 and 12 additional hours, of which at least nine of the additional hours must be taken at the 3000 or 4000 level (excluding GEOL 3909 and GEOL 3999).

# Geology, B.S.Geol.

# Areas of Concentration

# **Environmental Geology**

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001 and GEOL 1201; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 2: "C" or better in CHEM 1201 and GEOL 1202; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 3: "C" or better in BIOL 1201, MATH 1550, and CSC 1240; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 4: "C" or better in GEOL 2081 and PHYS 1201; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 5: "C" or better in GEOL 3032/GEOL 3041; 2.0 Cumulative, LSU and Semester GPA.

Recommended as preparation for a career in environmental geology and related fields or entrance to graduate study.

# Semester 1

**CRITICAL:** "C" or better in ENGL 1001 and GEOL 1201; 2.0 Cumulative, LSU and Semester GPA.

- CHEM 1201 General Chemistry I (3)
- ENGL 1001 English Composition (3)
- GEOL 1201 Principles of Geology I (4)
- MATH 1550 Analytic Geometry and Calculus I (5)

**Total Semester Hours: 15** 

# Semester 2

**CRITICAL:** "C" or better in CHEM 1201 and GEOL 1202; 2.0 Cumulative, LSU and Semester GPA.

- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- GEOL 1202 Principles of Geology II (4)
- MATH 1552 Analytic Geometry and Calculus II (4)

• BIOL 1201 Biology for Science Majors I (3)

## **Total Semester Hours: 16**

## Semester 3

**CRITICAL:** "C" or better in BIOL 1201, MATH 1550, and CSC 1240; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1202 Biology for Science Majors II (3)
- CSC 1240 Statistics and Graphics with MATLAB (3)
- PHYS 1201 General Physics for Physics Majors (4)
- PHYS 1208 General Physics Laboratory for Physics Majors (1) or
- PHYS 2108 Introductory Physics Laboratory (1)
- First Course in Foreign Language Sequence (4)

## **Total Semester Hours: 15**

## Semester 4

**CRITICAL:** "C" or better in GEOL 2081 and PHYS 1201; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 2000 English Composition (3)
- GEOL 2081 Mineralogy (4)
- PHYS 1202 General Physics for Physics Majors (4)
- PHYS 1209 General Physics Laboratory for Physics Majors (1) or
- PHYS 2109 General Physics Laboratory (1)
- General Education course Social Sciences (3)

## **Total Semester Hours: 15**

## Semester 5

**CRITICAL:** "C" or better in GEOL 3032/GEOL 3041; 2.0 Cumulative, LSU and Semester GPA.

- GEOL 3032 Introduction to Sedimentology and Depositional Environments (4)
- GEOL 3041 Igneous and Metamorphic Petrology (4)
- General Education course Humanities (ENGL/HNRS 2000-level) (3)
- PHYS 2203 Introductory Modern Physics (3)

## Semester 6

- GEOL 3061 Evolution of the Biosphere (4)
- GEOL 3071 Structural Geology (4)
- General Education course Social Sciences (2000-level) (3)
- General Education course Humanities (3)

## **Total Semester Hours: 14**

## Semester 7

#### SUMMER SESSION: Geology Field Camp.

• GEOL 3666 Field Geology (6)

## **Total Semester Hours: 6**

## Semester 8

- Area of Concentration Courses (9)<sup>1</sup>
- Free Electives (6)

# Total Semester Hours: 15

## Semester 9

- Area of Concentration Course (3)<sup>1</sup>
- Free Electives (4)
- General Education course Arts (3)

## Total Semester Hours: 10

## 120 Total Sem. Hrs.

<sup>1</sup> - Area of Concentration Course: Twelve hours of geology electives that must be chosen from GEOL 4020, GEOL

4023, GEOL 4043, GEOL 4062, GEOL 4081, GEOL 4084, GEOL 4085, GEOL 4150, GEOL 4164 and GEOL 4182

# Geology

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001 and GEOL 1201; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 2: "C" or better in CHEM 1201 and GEOL 1202; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 3: "C" or better in BIOL 1201, MATH 1550, and CSC 1240; Admission to the College; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 4: "C" or better in GEOL 2081 and PHYS

SEMESTER 4: "C" or better in GEOL 2081 and PHYS 1201/PHYS 2001; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 5: "C" or better in GEOL 3032/GEOL 3041; 2.0 Cumulative, LSU and Semester GPA.

Recommended as preparation for a career in geology and related fields, or entrance to a graduate study.

# Semester 1

**CRITICAL:** "C" or better in ENGL 1001 and GEOL 1201; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 1001 English Composition (3)
- CHEM 1201 General Chemistry I (3)
- GEOL 1201 Principles of Geology I (4)
- MATH 1550 Analytic Geometry and Calculus I (5)

**Total Semester Hours: 15** 

## Semester 2

**CRITICAL:** "C" or better in CHEM 1201 and GEOL 1202; 2.0 Cumulative, LSU and Semester GPA.

- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- GEOL 1202 Principles of Geology II (4)
- MATH 1552 Analytic Geometry and Calculus II (4)

• BIOL 1201 Biology for Science Majors I (3)

## **Total Semester Hours: 16**

## Semester 3

**CRITICAL:** "C" or better in BIOL 1201, MATH 1550, and CSC 1240; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1202 Biology for Science Majors II (3)
- PHYS 1201 General Physics for Physics Majors (4) or
- PHYS 2001 General Physics I (3)
- PHYS 1208 General Physics Laboratory for Physics Majors (1) or
- PHYS 2108 Introductory Physics Laboratory (1)
- CSC 1240 Statistics and Graphics with MATLAB (3)
- First Course in Foreign Language Sequence (4)

## Total Semester Hours: 15-14

## Semester 4

**CRITICAL:** "C" or better in GEOL 2061/GEOL 2081 and PHYS 1201/PHYS 2001; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 2000 English Composition (3)
- GEOL 2081 Mineralogy (4)
- PHYS 1202 General Physics for Physics Majors (4) or
- PHYS 2002 General Physics II (3)
- PHYS 1209 General Physics Laboratory for Physics Majors (1) or
- PHYS 2109 General Physics Laboratory (1)
- General Education course Arts (3)

Total Semester Hours: 15-14

# Semester 5

**CRITICAL:** "C" or better in GEOL 3032/GEOL 3041; 2.0 Cumulative, LSU and Semester GPA.

- GEOL 3032 Introduction to Sedimentology and Depositional Environments (4)
- GEOL 3041 Igneous and Metamorphic Petrology (4)
- General Education course -Humanities (ENGL/HNRS 2000-level) (3)
- General Education course Social Sciences (3)

# Total Semester Hours: 14

# Semester 6

- GEOL 3061 Evolution of the Biosphere (4)
- GEOL 3071 Structural Geology (4)
- General Education course Social Sciences (2000-level) (3)
- General Education course Humanities (3)
- Free Electives (3)

# Total Semester Hours: 17

# Semester 7

#### SUMMER SESSION: Geology Field Camp.

• GEOL 3666 Field Geology (6)

# **Total Semester Hours: 6**

# Semester 8

- Free Electives (6)
- GEOL 4000-level Courses (6)<sup>1</sup>

## Total Semester Hours: 12

# Semester 9

- GEOL 4000-level Courses (6)<sup>1</sup>
- Free Electives (4-6)

Total Semester Hours: 10-12

# 120 Total Sem. Hrs.

<sup>1</sup> - Area of Concentration Course: Twelve hours of 4000-level geology electives.

# Geophysics

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001 and GEOL 1201; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 2: "C" or better in CHEM 1201 and GEOL 1202; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 3: "C" or better in BIOL 1201 and MATH 1550 and CSC 1240; Admission to the College; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 4: "C" or better in GEOL 2081 and PHYS 1201; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 5: "C" or better in GEOL 3032/GEOL 3041; 2.0 Cumulative, LSU and Semester GPA.

Recommended as preparation for a career in geophysics and related fields or entrance to graduate study.

# Semester 1

**CRITICAL:** "C" or better in ENGL 1001 and GEOL 1201; 2.0 Cumulative, LSU and Semester GPA.

- CHEM 1201 General Chemistry I (3)
- ENGL 1001 English Composition (3)
- GEOL 1201 Principles of Geology I (4)
- MATH 1550 Analytic Geometry and Calculus I (5)

## Total Semester Hours: 15

## Semester 2

**CRITICAL:** "C" or better in CHEM 1201 and GEOL 1202; 2.0 Cumulative, LSU and Semester GPA.

- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- GEOL 1202 Principles of Geology II (4)
- MATH 1552 Analytic Geometry and Calculus II (4)
- BIOL 1201 Biology for Science Majors I (3)

## Total Semester Hours: 16

# Semester 3

**CRITICAL:** "C" or better in BIOL 1201, MATH 1550, and CSC 1240; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

- CSC 1240 Statistics and Graphics with MATLAB (3)
- MATH 2065 Elementary Differential Equations (3) or
- MATH 2090 Elementary Differential Equations and Linear Algebra (4)
- PHYS 1201 General Physics for Physics Majors (4)
- PHYS 1208 General Physics Laboratory for Physics Majors (1) or
- PHYS 2108 Introductory Physics Laboratory (1)
- First Course in Foreign Language Sequence (4)

## Total Semester Hours: 16-15

## Semester 4

**CRITICAL:** "C" or better in GEOL 2081 and PHYS 1201; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 2000 English Composition (3)
- PHYS 1202 General Physics for Physics Majors (4)
- PHYS 1209 General Physics Laboratory for Physics Majors (1) or
- PHYS 2109 General Physics Laboratory (1)
- GEOL 2081 Mineralogy (4)
- General Education course Social Sciences (3)

## **Total Semester Hours: 15**

## Semester 5

**CRITICAL:** "C" or better in GEOL 3032/ GEOL 3041; 2.0 Cumulative, LSU and Semester GPA.

- PHYS 2203 Introductory Modern Physics (3)
- GEOL 3041 Igneous and Metamorphic Petrology (4)
- GEOL 3032 Introduction to Sedimentology and Depositional Environments (4)
- General Education course Social Sciences (2000-level) (3)
- General Education course Humanities (ENGL/HNRS 2000-level) (3)

# Semester 6

- GEOL 3061 Evolution of the Biosphere (4)
- GEOL 3071 Structural Geology (4)
- PETE 3036 Well Logging (3)
- General Education course Humanities (3)
- Free Elective (0-1)

## Total Semester Hours: 15-14

## Semester 7

#### SUMMER-Six week field study course.

• GEOL 3666 Field Geology (6)

## Total Semester Hours: 6

## Semester 8

- GEOL 4000-level Course (3)
- Area of Concentration Course (6)<sup>1</sup>
- General Education course Arts (3)

## **Total Semester Hours: 12**

# Semester 9

- Area of Concentration Course (3)<sup>1</sup>
- Free Electives (6)

# **Total Semester Hours: 9**

# 120 Total Sem. Hrs.

 AREA OF CONCENTRATION COURSES: Nine hours of geology electives that must be chosen from: GEOL 4019, GEOL 4045, GEOL 4060, GEOL 4062, GEOL 4066, GEOL 4068, GEOL 4107, GEOL 4150, GEOL 4182.

# **Department of Mathematics**

OFFICE	301 Lockett Hall
TELEPHONE	225-578-1665
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WEBSITE	www.math.lsu.edu
E-MAIL	department@math.lsu.edu

Students majoring in mathematics may choose from several areas of concentration. Each concentration requires the following lower division mathematics courses (totaling 22 sem. hrs.): MATH 1550 (or MATH 1551), MATH 1552 (or MATH 1553), MATH 2057 (or MATH 2058), MATH 2060 (or EXST 3201), MATH 2085, and two courses from MATH 2020, MATH 2025, MATH 2030. Each concentration requires additional courses (see recommended paths) and a capstone experience. Credit for mathematics courses numbered below 1550 will not be counted toward the required credits for mathematics majors.

Those students who are planning to pursue a graduate degree in mathematics are strongly advised to include MATH 4031, MATH 4032, MATH 4035, MATH 4153, and MATH 4200 in their curriculum even if they do not select the mathematics area of concentration.

Honors courses offered in mathematics are MATH 1551, MATH 1553, and MATH 2058. The honors option is available to students in upper division mathematics courses. (See "Honors Option" in the "Honors College" section in this catalog.) A special curriculum leading to the BS degree in mathematics with departmental honors is offered. Details are available from the departmental office.

No student may receive more than nine semester hours of credit in mathematics courses numbered below 1550, with the exception of students who are pursuing the elementary education degree and following the 12 hour sequence specified in that curriculum. No student who has already received credit for a mathematics course numbered 1550 or above may be registered in a mathematics course numbered below 1550, unless given special permission by the Department of Mathematics.

## **Mathematics Minor**

The requirements for an undergraduate *minor in mathematics* are as follows: MATH 1550 (or MATH 1551), MATH 1552 (or MATH 1553), MATH 2057 (or MATH 2058), MATH 2085 (or MATH 2070 or MATH 2090), and at least nine semester hours at the 3000 or 4000 level, but excluding MATH 3903 and MATH 4005.

# Mathematics, B.S.

# Areas of Concentration

Consult "Degree Requirements of the College" in this section of the catalog for specific instructions regarding electives and the general education literature and social sciences requirements.

# **Actuarial Science**

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 2: "C" or better in MATH 1550; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 3: "C" or better in MATH 1552; 2.0 Cumulative, LSU and Semester GPA; Admission to the College. SEMESTER 4: "C" or better in MATH 2057; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 5: "C" or better in MATH 2085, MATH 2020/MATH 2025/MATH 2030; 2.0 Cumulative, LSU and Semester GPA.

# Semester 1

**CRITICAL:** "C" or better in ENGL 1001; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5) or
- MATH 1551 HONORS: Analytic Geometry and Calculus I (5)
- Foreign Language Course (4)
- General Education course Natural Sciences (3)<sup>1</sup>
- Natural Sciences Lab (0-1)

#### Total Semester Hours: 15-16

## Semester 2

**CRITICAL:** "C" or better in MATH 1550; 2.0 Cumulative, LSU and Semester GPA.

- MATH 1552 Analytic Geometry and Calculus II

   (4)
- General Education course Natural Sciences (3)<sup>1</sup>
- Natural Sciences Lab (2-1)
- General Education course Arts (3)
- General Education course Social Sciences (3)

#### Total Semester Hours: 15-14

## Semester 3

**CRITICAL:** "C" or better in MATH 1552; 2.0 Cumulative, LSU and Semester GPA; Admission to the College.

- MATH 2020 Solving Discrete Problems (3) or
- MATH 2025 Integral Transforms and Their Applications (3) or
- MATH 2030 Discrete Dynamical Systems (3)
- MATH 2057 Multidimensional Calculus (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Humanities (English/Honors 2000-level) (3)
- ACCT 2001 Introductory Financial Accounting (3)

## **Total Semester Hours: 15**

## Semester 4

**CRITICAL:** "C" or better in MATH 2057; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 2000 English Composition (3)
- MATH 2085 Linear Algebra (3)
- MATH 2020 Solving Discrete Problems (3) or
- MATH 2025 Integral Transforms and Their Applications (3) or
- MATH 2030 Discrete Dynamical Systems (3)
- ECON 2030 Economic Principles (3) <sup>2</sup>
- General Education course Humanities (3)

## **Total Semester Hours: 15**

## Semester 5

**CRITICAL:** "C" or better in MATH 2085, MATH 2020/MATH 2025/MATH 2030; 2.0 Cumulative, LSU and Semester GPA.

- MATH 3355 Probability (3)
- EXST 2201 Introduction to Statistical Analysis (4)
- FIN 3715 Business Finance (3)
- Approved Electives (6)

## Total Semester Hours: 16

## Semester 6

- EXST 3201 Statistical Analysis II (4)
- MATH 4058 Elementary Stochastic Processes (3)
- Approved Electives (9)

## Total Semester Hours: 16

## Semester 7

- MATH 4050 Interest Theory (5)
- MATH 4056 Mathematical Statistics (4)
- Approved Electives (6)

## Total Semester Hours: 15

# Semester 8

- MATH 4020 Capstone Course (3) or
- MATH 4997 Vertically Integrated Research (3) or
- EXST 4087 Special Topics in Applied Statistics (3)
- MATH 4153 Finite Dimensional Vector Spaces (3)
- Approved Electives (7)

## Total Semester Hours: 13

# 120 Total Sem. Hrs.

<sup>1</sup> - A mathematics major must take a two-semester sequence from one of the following two lists:

- 1. Biological Sciences: BIOL 1001, BIOL 1002 or BIOL 1201, BIOL 1202
- Physical Sciences: ASTR 1101, ASTR 1102; CHEM 1001, CHEM 1002; CHEM 1201, CHEM 1202; GEOL 1001, GEOL 1003; GEOL 1001, GEOL 2020; GEOL 1111, GEOL 1003; GEOL 1111, GEOL 2020; PHYS 1201, PHYS 1202; PHYS 2001, PHYS 2002; PHYS 2110, PHYS 2112; PHYS 2110, PHYS 2113.

The two-semester sequence must include two hours of corresponding laboratory credit. The student must also take a one-semester course chosen from whichever list above was not used for the two-semester sequence.

<sup>2</sup> - ECON 2030 applies as three hours toward the university general education social sciences requirement. However, since it is also a concentration course, it must be passed with a grade of "C" of better.

# **Computational Mathematics**

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 2: "C" or better in MATH 1550; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 3: "C" or better in MATH 1552; 2.0 Cumulative, LSU and Semester GPA; Admission to the College. SEMESTER 4: "C" or better in MATH 2057; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 5: "C" or better in MATH 2085, MATH 2020/MATH 2025/MATH 2030; 2.0 Cumulative, LSU and Semester GPA.

# Semester 1

**CRITICAL:** "C" or better in ENGL 1001; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5) or
- MATH 1551 HONORS: Analytic Geometry and Calculus I (5)
- Foreign Language Course (4)
- General Education course Natural Sciences (3)<sup>1</sup>

• Natural Sciences Lab (1)

## Total Semester Hours: 15-16

#### Semester 2

**CRITICAL:** "C" or better in MATH 1550; 2.0 Cumulative, LSU and Semester GPA.

- MATH 1552 Analytic Geometry and Calculus II (4)
- General Education Course Social Sciences (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- Natural Sciences Lab (1)
- General Education course Arts (3)

#### Total Semester Hours: 15-14

#### Semester 3

**CRITICAL:** "C" or better in MATH 1552; 2.0 Cumulative, LSU and Semester GPA; Admission to the College.

- MATH 2057 Multidimensional Calculus (3)
- MATH 2060 Technology Lab (1)
- MATH 2020 Solving Discrete Problems (3) or
- MATH 2025 Integral Transforms and Their Applications (3) or
- MATH 2030 Discrete Dynamical Systems (3)
- General Education Course Social Sciences (2000-level) (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Humanities (English/honors 2000-level) (3)

#### Total Semester Hours: 16

## Semester 4

**CRITICAL:** "C" or better in MATH 2057; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 2000 English Composition (3)
- MATH 2085 Linear Algebra (3)

- MATH 2020 Solving Discrete Problems (3) or
- MATH 2025 Integral Transforms and Their Applications (3) or
- MATH 2030 Discrete Dynamical Systems (3)
- General Education course Humanities (3)
- Approved Elective (3)

#### **Total Semester Hours: 15**

## Semester 5

**CRITICAL:** "C" or better in MATH 2085, MATH 2020/MATH 2025/MATH 2030; 2.0 Cumulative, LSU and Semester GPA.

- MATH 2065 Elementary Differential Equations

   (3)<sup>2</sup>
- MATH 4065 Numerical Analysis (3)
- MATH 4064 Numerical Linear Algebra (3)
- Approved Electives (6)

## **Total Semester Hours: 15**

## Semester 6

- MATH 4031 Advanced Calculus I (3)
- MATH 4066 Numerical Differential Equations (3)
- Area of Concentration Course  $(3)^3$
- Approved Electives (6)

## **Total Semester Hours: 15**

## Semester 7

- MATH 4025 Optimization Theory and Applications (3)
- MATH 4035 Advanced Calculus of Several Variables (3) or
- MATH 4032 Advanced Calculus II (3)
- Approved Electives (6)
- Area of Concentration Course (3)<sup>3</sup>

#### **Total Semester Hours: 15**

# Semester 8

- MATH 4020 Capstone Course (3)
- Area of Concentration Course (3)<sup>3</sup>
- Approved Electives (8)

#### Total Semester Hours: 14

## 120 Total Sem. Hrs.

<sup>1</sup> - A mathematics major must take a two-semester sequence from one of the following two lists:

- Biological Sciences: BIOL 1001, BIOL 1002 or BIOL 1201, BIOL 1202
- Physical Sciences: ASTR 1101, ASTR 1102; CHEM 1001, CHEM 1002; CHEM 1201, CHEM 1202; GEOL 1001, GEOL 1003; GEOL 1001, GEOL 2020; GEOL 1111, GEOL 1003; GEOL 1111, GEOL 2020; PHYS 1201, PHYS 1202; PHYS 2001, PHYS 2002; PHYS 2110, PHYS 2112; PHYS 2110, PHYS 2113.

The two-semester sequence must include two hours of corresponding laboratory credit. The student must also take a one-semester course chosen from whichever list above was not used for the two-semester sequence.

<sup>2</sup> - Students may choose to take MATH 2090 and waive MATH 2065 as well as the core requirement of MATH 2085. The two-hour difference will be added to approved electives.

<sup>3</sup> - Select from the following: MATH 4340, MATH 4036, MATH 3355, MATH 4058, CSC 4356, CSC 4357, ME 4823, EE 3160, or upper division courses in engineering and science that have a strong computational component with the approval of the mathematics department.

# **Mathematics**

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 2: "C" or better in MATH 1550; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 3: "C" or better in MATH 1552; 2.0 Cumulative, LSU and Semester GPA; Admission to the

#### College.

SEMESTER 4: "C" or better in MATH 2057; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 5: "C" or better in MATH 2085, MATH 2020/MATH 2025/MATH 2030; 2.0 Cumulative, LSU and Semester GPA.

# Semester 1

**CRITICAL:** "C" or better in ENGL 1001; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- Foreign Language Course (4)
- General Education course Natural Sciences (3)<sup>1</sup>
- Natural Sciences Lab (0-1)

## Total Semester Hours: 15-16

# Semester 2

**CRITICAL:** "C" or better in MATH 1550; 2.0 Cumulative, LSU and Semester GPA.

- MATH 1552 Analytic Geometry and Calculus II (4)
- General Education course Social Sciences (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- Natural Sciences Lab (2-1)
- General Education course Arts (3)

Total Semester Hours: 15-14

# Semester 3

**CRITICAL:** "C" or better in MATH 1552; 2.0 Cumulative, LSU and Semester GPA; Admission to the College.

- MATH 2057 Multidimensional Calculus (3)
- MATH 2060 Technology Lab (1)
- MATH 2020 Solving Discrete Problems (3) or
- MATH 2025 Integral Transforms and Their Applications (3) or
- MATH 2030 Discrete Dynamical Systems (3)

- Approved Elective (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Humanities (English/honors 2000-level) (3)

## Semester 4

**CRITICAL:** "C" or better in MATH 2057; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 2000 English Composition (3)
- MATH 2085 Linear Algebra (3)
- MATH 2020 Solving Discrete Problems (3) or
- MATH 2025 Integral Transforms and Their Applications (3) or
- MATH 2030 Discrete Dynamical Systems (3)
- General Education course Humanities (3)
- Approved Elective (3)

## Total Semester Hours: 15

## Semester 5

**CRITICAL:** "C" or better in MATH 2085, MATH 2020/MATH 2025/MATH 2030; 2.0 Cumulative, LSU and Semester GPA.

- MATH 4200 Abstract Algebra I (3)
- Approved Elective (3)
- General Education course Social Sciences (2000-level) (3)
- Area of Concentration Courses (3)<sup>2</sup>
- MATH 4031 Advanced Calculus I (3)

## Total Semester Hours: 15

## Semester 6

- MATH 4201 Abstract Algebra II (3) or
- MATH 4153 Finite Dimensional Vector Spaces (3)
- MATH 4032 Advanced Calculus II (3) or

- MATH 4035 Advanced Calculus of Several Variables (3) or
- MATH 4036 Complex Variables (3)
- Approved Electives (6)
- Area of Concentration Course (3)<sup>2</sup>

## **Total Semester Hours: 15**

# Semester 7

- MATH 4020 Capstone Course (3) or
- MATH 4997 Vertically Integrated Research (3)
- Approved Electives (9)
- Area of Concentration Course (3)<sup>2</sup>

## **Total Semester Hours: 15**

# Semester 8

- MATH 4039 Introduction to Topology (3)
- Area of Concentration Course (3)<sup>2</sup>
- Approved Electives (8)

# Total Semester Hours: 14

# 120 Total Sem. Hrs.

<sup>1</sup> - A mathematics major must take a two-semester sequence from one of the following two lists:

- 1. Biological Sciences: BIOL 1001, BIOL 1002 or BIOL 1201, BIOL 1202
- Physical Sciences: ASTR 1101, ASTR 1102; CHEM 1001, CHEM 1002; CHEM 1201, CHEM 1202; GEOL 1001, GEOL 1003; GEOL 1001, GEOL 2020; GEOL 1111, GEOL 1003; GEOL 1111, GEOL 2020; PHYS 1201, PHYS 1202; PHYS 2001, PHYS 2002; PHYS 2110, PHYS 2112; PHYS 2110, PHYS 2113.

The two-semester sequence must include two hours of corresponding laboratory credit. The student must also take a one-semester course chosen from whichever list above was not used for the two-semester sequence.

 <sup>2</sup> - Select from: MATH 2065, MATH 2070, MATH 3355, MATH 4024, MATH 4025, MATH 4027, MATH 4032, MATH 4035, MATH 4036, MATH 4056, MATH 4058, MATH 4064, MATH 4153, MATH 4066, MATH 4065, MATH 4158, MATH 4171, MATH 4172, MATH 4181, MATH 4201, MATH 4325, MATH 4340, MATH 4345, MATH 4700, MATH 4997, MATH 4999.

**NOTE:** At most six credit hours of the 30 hours in the concentration may be from MATH 4020, MATH 4997 or MATH 4999.

# Mathematics and a Second Discipline

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 2: "C" or better in MATH 1550; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 3: "C" or better in MATH 1552; 2.0 Cumulative, LSU and Semester GPA; Admission to the College. SEMESTER 4: "C" or better in MATH 2057; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 5: "C" or better in MATH 2085, MATH 2020/MATH 2025/MATH 2030; 2.0 Cumulative, LSU and Semester GPA.

## Semester 1

**CRITICAL:** "C" or better in ENGL 1001; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- First Course in Foreign Language Sequence (4)
- General Education course Natural Sciences (3)<sup>1</sup>
- Natural Sciences Lab (0-1)

#### Total Semester Hours: 15-16

## Semester 2

**CRITICAL:** "C" or better in MATH 1550; 2.0 Cumulative, LSU and Semester GPA.

- MATH 1552 Analytic Geometry and Calculus II

   (4)
- General Education course Social Sciences (3)
- General Education course Natural Sciences (3)<sup>1</sup>

- Natural Sciences Lab (2-1)
- General Education course Arts (3)

#### Total Semester Hours: 15-14

## Semester 3

**CRITICAL:** "C" or better in MATH 1552; 2.0 Cumulative, LSU and Semester GPA; Admission to the College.

- MATH 2057 Multidimensional Calculus (3)
- MATH 2060 Technology Lab (1)
- MATH 2020 Solving Discrete Problems (3) or
- MATH 2025 Integral Transforms and Their Applications (3) or
- MATH 2030 Discrete Dynamical Systems (3)
- Second Discipline Course (3)<sup>2</sup>
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Humanities (English/honors 2000-level) (3)

#### **Total Semester Hours: 16**

## Semester 4

**CRITICAL:** "C" or better in MATH 2057; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 2000 English Composition (3)
- MATH 2085 Linear Algebra (3)
- MATH 2020 Solving Discrete Problems (3) or
- MATH 2025 Integral Transforms and Their Applications (3) or
- MATH 2030 Discrete Dynamical Systems (3)
- General Education course Humanities (3)
- Second Discipline Course (3)<sup>2</sup>

## Total Semester Hours: 15

#### Semester 5

**CRITICAL:** "C" or better in MATH 2085; MATH 2020/MATH 2025/MATH 2030; 2.0 Cumulative, LSU and Semester GPA.

- MATH 4023 Applied Algebra (3) or
- MATH 4200 Abstract Algebra I (3)
- General Education course Social Sciences (2000-level) (3)
- Area of Concentration Course (3)<sup>3</sup>
- Second Discipline Course (3)<sup>2</sup>
- Approved Elective (3)

#### Total Semester Hours: 15

## Semester 6

- MATH 4031 Advanced Calculus I (3) or
- MATH 4036 Complex Variables (3)
- Area of Concentration Course (3)<sup>3</sup>
- Second Discipline Courses (6)<sup>2</sup>
- Approved Elective (3)

#### **Total Semester Hours: 15**

#### Semester 7

- MATH 4020 Capstone Course (3) or
- MATH 4997 Vertically Integrated Research (3)
- Area of Concentration Course (3)<sup>3</sup>
- Second Discipline Course (3)<sup>2</sup>
- Approved Electives (6)

#### **Total Semester Hours: 15**

## Semester 8

- Second Discipline Course (3)<sup>2</sup>
- Approved Electives (11)

## Total Semester Hours: 14

120 Total Sem. Hrs.

<sup>1</sup> - A mathematics major must take a two-semester sequence from one of the following two lists:

- Biological Sciences: BIOL 1001, BIOL 1002 or BIOL 1201, BIOL 1202
- Physical Sciences: ASTR 1101, ASTR 1102; CHEM 1001, CHEM 1002; CHEM 1201, CHEM 1202; GEOL 1001, GEOL 1003; GEOL 1001, GEOL 2020; GEOL 1111, GEOL 1003; GEOL 1111, GEOL 2020; PHYS 1201, PHYS 1202; PHYS 2001, PHYS 2002; PHYS 2110, PHYS 2112; PHYS 2110, PHYS 2113.

The two-semester sequence must include two hours of corresponding laboratory credit. The student must also take a one-semester course chosen from whichever list above was not used for the two-semester sequence.

<sup>2</sup> - Second Discipline Electives:

21 credit hours from another discipline. 12 of these must be at the 3000 or 4000 level, and 6 of the 12 must be at the 4000 level. Courses should form a coherent sequence in one department. Selection of the second discipline courses should be completed and approved by the department and dean's office by the end of the sophomore year.

<sup>3 -</sup> Select courses from: MATH 3355, MATH 4024, MATH 4025, MATH 4027, MATH 4032, MATH 4035, MATH 4036, MATH 4039, MATH 4058, MATH 4064, MATH 4065, MATH 4066, MATH 4153, MATH 4158, MATH 4171, MATH 4172, MATH 4181, MATH 4201, MATH 4325, MATH 4340, MATH 4345, MATH 4700, MATH 4997, MATH 4999.

NOTE: At most six credit hours of the 39 hours in the concentration may be from MATH 4020, MATH 4997 or MATH 4999.

# **Mathematical Statistics**

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 2: "C" or better in MATH 1550; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 3: "C" or better in MATH 1552; 2.0 Cumulative, LSU and Semester GPA; Admission to the College. SEMESTER 4: "C" or better in MATH 2057; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 5: "C" or better in MATH 2085, MATH 2020/MATH 2025/MATH 2030; 2.0 Cumulative, LSU and Semester GPA.

# Semester 1

**CRITICAL:** "C" or better in ENGL 1001; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- Foreign Language Course (4)
- General Education course Natural Sciences (3)<sup>1</sup>
- Natural Sciences Lab (0-1)

## Total Semester Hours: 15-16

## Semester 2

**CRITICAL:** "C" or better in MATH 1550; 2.0 Cumulative, LSU and Semester GPA.

- MATH 1552 Analytic Geometry and Calculus II (4)
- General Education course Natural Sciences (3)<sup>1</sup>
- Natural Sciences Lab (2-1)
- General Education course Arts (3)
- General Education course Social Sciences (3)

#### Total Semester Hours: 15-14

## Semester 3

**CRITICAL:** "C" or better in MATH 1552; 2.0 Cumulative, LSU and Semester GPA; Admission to the College.

- MATH 2057 Multidimensional Calculus (3)
- MATH 2020 Solving Discrete Problems (3) or
- MATH 2025 Integral Transforms and Their Applications (3) or
- MATH 2030 Discrete Dynamical Systems (3)
- General Education course Social Sciences (2000-level) (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Humanities (English/honors 2000-level) (3)

## **Total Semester Hours: 15**

#### Semester 4

**CRITICAL:** "C" or better in MATH 2057; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 2000 English Composition (3)
- MATH 2085 Linear Algebra (3)
- MATH 2020 Solving Discrete Problems (3) or
- MATH 2025 Integral Transforms and Their Applications (3) or
- MATH 2030 Discrete Dynamical Systems (3)
- General Education course Humanities (3)
- Approved Elective (3)

## **Total Semester Hours: 15**

## Semester 5

**CRITICAL:** "C" or better in MATH 2085, MATH 2020/MATH 2025/MATH 2030; 2.0 Cumulative, LSU and Semester GPA.

- MATH 3355 Probability (3)
- EXST 2201 Introduction to Statistical Analysis (4)
- Approved Electives (9)

# Total Semester Hours: 16

## Semester 6

- EXST 3201 Statistical Analysis II (4)
- MATH 4031 Advanced Calculus I (3)
- Approved Electives (9)

## **Total Semester Hours: 16**

## Semester 7

- MATH 4035 Advanced Calculus of Several Variables (3) or
- MATH 4058 Elementary Stochastic Processes (3) or

- MATH 4153 Finite Dimensional Vector Spaces (3)
- MATH 4056 Mathematical Statistics (4)
- EXST 4012 Introduction to Sampling Techniques (3)
- MATH 4020 Capstone Course (3) or
- MATH 4997 Vertically Integrated Research (3) or
- EXST 4087 Special Topics in Applied Statistics (3)

## Semester 8

- MATH 4035 Advanced Calculus of Several Variables (3) or
- MATH 4058 Elementary Stochastic Processes (3) or
- MATH 4153 Finite Dimensional Vector Spaces (3)
- Approved Electives (12)

## Total Semester Hours: 15

# 120 Total Sem. Hrs.

<sup>1</sup> - A mathematics major must take a two-semester sequence from one of the following two lists:

- Biological Sciences: BIOL 1001, BIOL 1002 or BIOL 1201, BIOL 1202
- Physical Sciences: ASTR 1101, ASTR 1102; CHEM 1001, CHEM 1002; CHEM 1201, CHEM 1202; GEOL 1001, GEOL 1003; GEOL 1001, GEOL 2020; GEOL 1111, GEOL 1003; GEOL 1111, GEOL 2020; PHYS 1201, PHYS 1202; PHYS 2001, PHYS 2002; PHYS 2110, PHYS 2112; PHYS 2110, PHYS 2113.

The two-semester sequence must include two hours of corresponding laboratory credit. The student must also take a one-semester course chosen from whichever list above was not used for the two-semester sequence..

# Secondary Education - Mathematics

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 2: "C" or better in MATH 1550; 2.5 Cumulative and LSU GPA; 2.0 Semester GPA. SEMESTER 3: "C" or better in MATH 1552; 2.5 Cumulative and LSU GPA; 2.0 Semester GPA; Admission to the College. SEMESTER 4: "C" or better in MATH 2057; 2.5 Cumulative and LSU GPA; 2.0 Semester GPA. SEMESTER 5: "C" or better in MATH 2057, MATH 2020/MATH 2025/MATH 2030; 2.5 Cumulative and LSU GPA; 2.0 Semester GPA.

This concentration is part of the Geaux Teach–Math and Sciences Program. Students will obtain a degree in mathematics and, upon completing this concentration and meeting any additional requirements of the Louisiana Department of Education, will be eligible for certification in the state of Louisiana as teachers in grades 6-12.

# Semester 1

**CRITICAL:** "C" or better in ENGL 1001; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- BASC 2010 Inquiry Approaches to Math and Science Teaching (1)
- General Education Course Arts (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- Natural Sciences Lab (0-1)

Total Semester Hours: 15-16

## Semester 2

**CRITICAL:** "C" or better in MATH 1550; 2.5 Cumulative and LSU GPA; 2.0 Semester GPA.

- MATH 1552 Analytic Geometry and Calculus II (4)
- BASC 2011 Inquiry-Based Math and Science Lesson Design (1)
- General Education course Social Sciences (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- Natural Sciences Lab (2-1)
- Approved Elective (3)

## Semester 3

**CRITICAL:** "C" or better in MATH 1552; 2.5 Cumulative and LSU GPA; 2.0 Semester GPA; Admission to the College.

- EDCI 2500 Knowing and Learning in Mathematics and Science (3)
- MATH 2057 Multidimensional Calculus (3)
- MATH 2060 Technology Lab (1)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Humanities (English/honors 2000-level) (3)
- MATH 2025 Integral Transforms and Their Applications (3) or
- MATH 2030 Discrete Dynamical Systems (3)

## Total Semester Hours: 16

# Semester 4

**CRITICAL:** "C" or better in MATH 2057; 2.5 Cumulative and LSU GPA; 2.0 Semester GPA.

- ENGL 2000 English Composition (3)
- EDCI 3550 Classroom Interactions (3)
- MATH 2020 Solving Discrete Problems (3)
- MATH 2085 Linear Algebra (3)
- General Education course Humanities (3)

## Total Semester Hours: 15

# Semester 5

**CRITICAL:** "C" or better in MATH 2085, MATH 2020/MATH 2025/MATH 2030; 2.5 Cumulative and LSU GPA; 2.0 Semester GPA.

- MATH 3002 Mathematics Classroom Presentations (2)
- MATH 3355 Probability (3)
- MATH 4031 Advanced Calculus I (3)
- Foreign Language Course (4)
- BIOL 4005 Science Research Methods (3) or
- CHEM 4005 Science Research Methods (3) or

• PHYS 4005 Science Research Methods (3)

## **Total Semester Hours: 15**

## Semester 6

- MATH 3003 Functions & Modeling (3)
- MATH 4005 Geometry (3)
- MATH 4700 History of Mathematics (3)
- PHIL 2786 History & Philosophy of Science, Technology, and Mathematics (3)
- Approved Elective (3)

## **Total Semester Hours: 15**

# Semester 7

- EDCI 4500 Instructional Models for Mathematics and Science (3)
- MATH 4019 Calculus Internship Capstone (2)
- MATH 4023 Applied Algebra (3) or
- MATH 4181 Elementary Number Theory (3) or
- MATH 4200 Abstract Algebra I (3)
- Approved Elective (8)

## **Total Semester Hours: 16**

# Semester 8

- EDCI 4006 Student Teaching in Grades 6-12 Mathematics and Sciences (9)
- EDCI 3136 Reading in the Content Areas (3)

## **Total Semester Hours: 12**

## 120 Total Sem. Hrs.

<sup>1</sup> - A mathematics major must take a two-semester sequence from one of the following two lists:

- 1. Biological Sciences: BIOL 1001, BIOL 1002 or BIOL 1201, BIOL 1202
- Physical Sciences: ASTR 1101, ASTR 1102; CHEM 1001, CHEM 1002; CHEM 1201, CHEM 1202; GEOL 1001, GEOL 1003; GEOL 1001, GEOL 2020; GEOL 1111, GEOL 1003; GEOL

1111, GEOL 2020; PHYS 1201, PHYS 1202; PHYS 2001, PHYS 2002; PHYS 2110, PHYS 2112; PHYS 2110, PHYS 2113.

The two-semester sequence must include two hours of corresponding laboratory credit. The student must also take a one-semester course chosen from whichever list above was not used for the two-semester sequence.

**NOTE:** EDCI 2500 will count as one of the General Education Social Sciences courses. Students should plan their course work so that the last semester of the senior year can accommodate the 12 hours that are required to be taken concurrently (EDCI 4006 and EDCI 3136).

# **Department of Physics & Astronomy**

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TELEPHONE	225-578-2261
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WEBSITE	www.phys.lsu.edu

The Department of Physics & Astronomy offers master's degrees for medical physics studies. For additional information, see the section, "The Graduate School" in this catalog.

The undergraduate degree in physics provides rigorous training in problem solving, critical thinking, mathematical and computational skills, and experimental technique. The degree prepares the student for careers not only in physics, but other areas of science and engineering, as well as professional programs such as medicine and law.

Students majoring in physics pick from one of five concentrations: physics, astronomy, medical physics, second discipline and secondary education (GEAUX TEACH). The introductory sequence for majors is PHYS 1201, PHYS 1202, and PHYS 2203, plus the accompanying lab courses PHYS 1208, PHYS 1209, and PHYS 2207. Students may use the 9 hours of PHYS 2110, PHYS 2112, PHYS 2113 to substitute for the 8 hours of PHYS 1201 and PHYS 1202. Students also take 3 semesters of calculus, plus differential equations and linear algebra.

Advanced training in physics consists of courses in computational physics, PHYS 2411, instrumentation electronics, PHYS 3098 and a series of courses that go into greater depth over the same material covered in the introductory sequence. This common core of courses consists of mathematical methods and mechanics, PHYS 2221, electromagnetism, PHYS 2231 and PHYS 4132, and thermodynamics, PHYS 4125. Although not all concentrations require them, students who are contemplating graduate study in physics, astronomy, or engineering should take advanced mechanics, PHYS 4123 and quantum mechanics, PHYS 4141. PHYS 4125 and PHYS 4132 are optional for students in the secondary education concentration, but are strongly recommended as the required physics electives for that concentration. All undergraduate majors are encouraged to participate in one of the many research groups in the department and can receive academic credit towards their degree by doing so.

Students majoring in physics may complete the minor in Nuclear Science, provided that they take at least 9 hours of the classes listed for the minor in addition to any being used to complete their physics major.

**Prerequisites** • All prerequisites in physics courses should be rigidly observed.

**Corequisites** • A student may not continue in a course after dropping a corequisite course prior to the last day of the midsemester examination period.

# **Nuclear Science Minor**

Undergraduate students on this campus may choose to minor in nuclear science. The following conditions must be met:

- Approval from the Department of Physics & Astronomy
- At least 22 credit hours in nuclear science, medical physics and health physics, and physics courses. Required courses are PHYS 2110, PHYS 2112, PHYS 2113, PHYS 2108, PHYS 2109 (or PHYS 1201, PHYS 1202, PHYS 1208, PHYS 1209), plus 12 additional credit hours which must be taken from the following: MEDP 2051, MEDP 4331, MEDP 4351, MEDP 4352; NS 4352, NS 4411, NS 4570; and PHYS 2203, PHYS 2207, PHYS 3098, PHYS 4271.

# **Physics Minor**

An undergraduate *minor in physics* is available. Required courses are: PHYS 1201, PHYS 1202, PHYS 1208, PHYS 1209 (or PHYS 2110, PHYS 2112, PHYS 2113, PHYS 2108, PHYS 2109), and PHYS 2221, plus three additional courses, for a total of 22-23 hours. The three additional courses, at least one of which must be at the 4000 level, must be chosen from the following: PHYS 2203, PHYS 2231, PHYS 2411, PHYS 3098, or any three credit hour PHYS or ASTR course numbered from 4100 to 4299.

# Physics, B.S.

# Areas of Concentration

Students planning to enter graduate school are encouraged to select a modern foreign language.

# Astronomy

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in MATH 1022/MATH 1023 and ENGL 1001; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 2: "C" or better in MATH 1550; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 3: "C" or better in MATH 1552 and PHYS 1201/PHYS 2110; Admission to the College; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 4: "C" or better in MATH 2057 and PHYS 1202/PHYS 2113; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 5: "C" or better in MATH 2090 and PHYS

2203; 2.0 Cumulative, LSU and Semester GPA.

## Semester 1

**CRITICAL:** "C" or better in MATH 1022/MATH 1023 and ENGL 1001; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- PHYS 1201 General Physics for Physics Majors (4)<sup>1</sup>
- PHYS 1208 General Physics Laboratory for Physics Majors (1)
- General Education course Arts (3)

## **Total Semester Hours: 16**

## Semester 2

**CRITICAL:** "C" or better in MATH 1550; 2.0 Cumulative, LSU and Semester GPA.

• MATH 1552 Analytic Geometry and Calculus II (4)

- PHYS 1202 General Physics for Physics Majors (4)<sup>1</sup>
- PHYS 1209 General Physics Laboratory for Physics Majors (1)
- General Education course Humanities (3)
- General Education Course Humanities (ENGL/HNRS 2000-Level) (3)

#### Total Semester Hours: 15

## Semester 3

**CRITICAL:** "C" or better in MATH 1552 and PHYS 1201/PHYS 2110; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

- ASTR 1101 The Solar System (3)
- ENGL 2000 English Composition (3)
- MATH 2057 Multidimensional Calculus (3)
- PHYS 2203 Introductory Modern Physics (3)
- PHYS 2207 Introductory Modern Physics Laboratory (1)
- CSC 1253 Computer Science I with C++ (3) or equivalent programming course

## Total Semester Hours: 16

## Semester 4

**CRITICAL:** "C" or better in MATH 2057 and PHYS 1202/PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

- ASTR 1102 Stellar Astronomy (3)
- MATH 2090 Elementary Differential Equations and Linear Algebra (4)
- PHYS 2221 Introduction to Mechanics (3)
- PHYS 3098 Instrumentation Electronics for Scientists (3)
- BIOL 1001 General Biology (3) or
- BIOL 1201 Biology for Science Majors I (3)

#### **Total Semester Hours: 16**

## Semester 5

**CRITICAL:** "C" or better in MATH 2090 and PHYS 2203; 2.0 Cumulative, LSU and Semester GPA.

- ASTR 4221 Introductory Astrophysics (3)<sup>2</sup>
- PHYS 2231 Electricity and Magnetism (3)
- PHYS 2411 Computational Science I (3)
- PHYS 4123 Intermediate Mechanics (3)
- General Education Course Social Sciences (2000-level) (3)

#### **Total Semester Hours: 15**

## Semester 6

- ASTR 4222 Introductory Astrophysics (3)<sup>2</sup>
- PHYS 4132 Electromagnetism and Electromagnetic Waves (3)
- PHYS 4125 Thermodynamics and Statistical Mechanics (3)
- PHYS 4141 Introduction to Quantum Mechanics (3)
- Foreign Language Course (4)

#### **Total Semester Hours: 16**

## Semester 7

- ASTR 4261 Modern Observational Techniques (3)<sup>2</sup>
- General Education Course Social Sciences (3)
- Approved Electives (6)

## Total Semester Hours: 12

## Semester 8

- PHYS 4135 Modern Optics (3) <sup>2</sup>
- Approved Electives (11)

#### **Total Semester Hours: 14**

# 120 Total Sem. Hrs.

<sup>1</sup> - Students may take the complete PHYS 2110, PHYS 2112, PHYS 2113 sequence in place of the PHYS 1201, PHYS 1202 sequence. A student who chooses the three

semester sequence will require one less credit hour from free electives

<sup>2</sup> - ASTR 4221 and ASTR 4222 are taught in alternate years with ASTR 4261 and PHYS 4135. Students are to switch the semester that these courses are taken depending on what is offered that year.

# **Medical Physics**

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in MATH 1022/MATH 1023 and ENGL 1001; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 2: "C" or better in MATH 1550; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 3: "C" or better in MATH 1552 and PHYS 1201/PHYS 2110; Admission to the College; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 4: "C" or better in MATH 2057 and PHYS 1202/PHYS 2113; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 5: "C" or better in MATH 2090 and PHYS

SEMESTER 5: "C" or better in MATH 2090 and PHYS 2203; 2.0 Cumulative, LSU and Semester GPA.

# Semester 1

**CRITICAL:** "C" or better in MATH 1022/MATH 1023 and ENGL 1001; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- PHYS 1208 General Physics Laboratory for Physics Majors (1)
- PHYS 1201 General Physics for Physics Majors (4) <sup>1</sup>
- General Education course Arts (3)

#### **Total Semester Hours: 16**

## Semester 2

**CRITICAL:**"C" or better in MATH 1550; 2.0 Cumulative, LSU and Semester GPA.

MATH 1552 Analytic Geometry and Calculus II

 (4)

- PHYS 1202 General Physics for Physics Majors (4)<sup>1</sup>
- PHYS 1209 General Physics Laboratory for Physics Majors (1)
- General Education Course Humanities (3)
- General Education Course Humanities (ENGL/HNRS 2000-Level) (3)

# Semester 3

**CRITICAL:** "C" or better in MATH 1552 and PHYS 1201/PHYS 2110; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

- MATH 2057 Multidimensional Calculus (3)
- ENGL 2000 English Composition (3)
- CHEM 1201 General Chemistry I (3)
- PHYS 2203 Introductory Modern Physics (3)
- PHYS 2207 Introductory Modern Physics Laboratory (1)
- CSC 1253 Computer Science I with C++ (3) or equivalent programming course

# Total Semester Hours: 16

# Semester 4

**CRITICAL:** "C" or better in MATH 2057 and PHYS 1202/PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- MATH 2090 Elementary Differential Equations and Linear Algebra (4)
- PHYS 2221 Introduction to Mechanics (3)
- MEDP 2051 Radiation Science with Applications
   (3)

# Total Semester Hours: 15

# Semester 5

**CRITICAL:** "C" or better in MATH 2090 and PHYS 2203; 2.0 Cumulative, LSU and Semester GPA.

- CHEM 2060 Survey of Organic Chemistry (3)
- BIOL 1201 Biology for Science Majors I (3)
- PHYS 2231 Electricity and Magnetism (3)
- PHYS 2411 Computational Science I (3)
- General Education course Social Sciences (2000-level) (3)

# Total Semester Hours: 15

# Semester 6

- BIOL 1202 Biology for Science Majors II (3)
- PHYS 3098 Instrumentation Electronics for Scientists (3)
- NS 4411 Fundamentals of Nuclear Radiation Science (3)
- PHYS 4132 Electromagnetism and Electromagnetic Waves (3)
- Foreign Language Course (4)

# Total Semester Hours: 16

# Semester 7

- PHYS 4123 Intermediate Mechanics (3)
- MEDP 4352 Radiation Detection Laboratory (1)
- MEDP 4351 Radiation Detection and Instrumentation (2)
- General Education course Social Sciences (3)
- Approved Electives (6)

# **Total Semester Hours:15**

# Semester 8

- BIOL 2160 Human Physiology (3)
- PHYS 4141 Introduction to Quantum Mechanics (3)
- PHYS 4125 Thermodynamics and Statistical Mechanics (3)
- Approved Elective (3)

## **Total Semester Hours: 12**

# 120 Total Sem. Hrs.

<sup>1</sup> - Students may take the complete PHYS 2110, PHYS 2112, PHYS 2113 sequence in place of the PHYS 1201, PHYS 1202 sequence. A student who chooses the three semester sequence will require one less credit hour from free electives.

# Physics

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in MATH 1022/MATH 1023 and ENGL 1001; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 2: "C" or better in MATH 1550; 2.0

Cumulative, LSU and Semester GPA.

SEMESTER 3: "C" or better in MATH 1552 and PHYS

1201/PHYS 2110; Admission to the College; 2.0

Cumulative, LSU and Semester GPA.

SEMESTER 4: "C" or better in MATH 2057 and PHYS 1202/PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 5: "C" or better in MATH 2090 and PHYS 2203; 2.0 Cumulative, LSU and Semester GPA.

# Semester 1

**CRITICAL:** "C" or better in MATH 1022/MATH 1023 and ENGL 1001; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- PHYS 1201 General Physics for Physics Majors (4) <sup>1</sup>
- PHYS 1208 General Physics Laboratory for Physics Majors (1)
- General Education Course Arts (3)

# Total Semester Hours: 16

# Semester 2

**CRITICAL:** "C" or better in MATH 1550; 2.0 Cumulative, LSU and Semester GPA.

- MATH 1552 Analytic Geometry and Calculus II (4)
- PHYS 1202 General Physics for Physics Majors (4)<sup>1</sup>

- PHYS 1209 General Physics Laboratory for Physics Majors (1)
- General Education Course Humanities (ENGL/HNRS 2000-Level) (3)
- General Education course Humanities (3)

# Total Semester Hours: 15

## Semester 3

**CRITICAL:** "C" or better in MATH 1552 and PHYS 1201/PHYS 2110; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

- MATH 2057 Multidimensional Calculus (3)
- ENGL 2000 English Composition (3)
- PHYS 2203 Introductory Modern Physics (3)
- PHYS 2207 Introductory Modern Physics Laboratory (1)
- CSC 1253 Computer Science I with C++ (3) or equivalent programming course
- Approved Electives (3)

## Total Semester Hours: 16

# Semester 4

**CRITICAL:** "C" or better in MATH 2057 and PHYS 1202/PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

- MATH 2090 Elementary Differential Equations and Linear Algebra (4)
- PHYS 2221 Introduction to Mechanics (3)
- PHYS 3098 Instrumentation Electronics for Scientists (3)
- CHEM 1201 General Chemistry I (3)
- BIOL 1001 General Biology (3) or
- BIOL 1201 Biology for Science Majors I (3)

## **Total Semester Hours: 16**

# Semester 5

**CRITICAL:** "C" or better in MATH 2090 and PHYS 2203; 2.0 Cumulative, LSU and Semester GPA.

- PHYS 4123 Intermediate Mechanics (3)
- CHEM 1202 General Chemistry (3)
- PHYS 2231 Electricity and Magnetism (3)
- PHYS 2411 Computational Science I (3)
- General Education Course Social Sciences (2000-level) (3)

# Semester 6

- PHYS 4132 Electromagnetism and Electromagnetic Waves (3)
- PHYS 4125 Thermodynamics and Statistical Mechanics (3)
- PHYS 4141 Introduction to Quantum Mechanics (3)
- Foreign Language Course (4)

# Total Semester Hours: 13

# Semester 7

- PHYS 4142 Introduction to Quantum Mechanics (3)
- PHYS 4000-Level Course (3)<sup>2</sup>
- General Education Course Social Sciences (3)
- Approved Electives (6)

# Total Semester Hours: 15

## Semester 8

- PHYS 4399 Senior Thesis (3)
- PHYS 4000-Level Course (3)<sup>2</sup>
- Approved Electives (8)

# Total Semester Hours: 14

# 120 Total Sem. Hrs.

<sup>1</sup> - Students may take the complete PHYS 2110, PHYS 2112, PHYS 2113 sequence in place of the PHYS 1201, PHYS 1202 sequence. A student who chooses the three semester sequence will require one less credit hour from free electives.

<sup>2</sup> - Area of Concentration Course: two 4000-level PHYS electives. With permission, a 4000-level MATH may be substituted for a 4000-level PHYS course.

# Physics & Second Discipline

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in MATH 1022/MATH 1023 and ENGL 1001; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 2: "C" or better in MATH 1550; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 3: "C" or better in MATH 1552 and PHYS 1201/PHYS 2110; Admission to the College; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 4: "C" or better in MATH 2057 and PHYS 1202/PHYS 2113; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 5: "C" or better in MATH 2090 and PHYS 2203; 2.0 Cumulative, LSU and Semester GPA.

# Semester 1

**CRITICAL:** "C" or better in MATH 1022/MATH 1023 and ENGL 1001; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- PHYS 1201 General Physics for Physics Majors (4) <sup>1</sup>
- PHYS 1208 General Physics Laboratory for Physics Majors (1)
- General Education course Arts (3)

# Total Semester Hours: 16

# Semester 2

**CRITICAL:** "C" or better in MATH 1550; 2.0 Cumulative, LSU and Semester GPA.

- MATH 1552 Analytic Geometry and Calculus II (4)
- PHYS 1202 General Physics for Physics Majors (4) <sup>1</sup>
- PHYS 1209 General Physics Laboratory for Physics Majors (1)
- General Education course Humanities (3)

• General Education Course - Humanities (ENGL/HNRS 2000-Level) (3)

#### Total Semester Hours: 15

## Semester 3

**CRITICAL:** "C" or better in MATH 1552 and PHYS 1201/PHYS 2110; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

- MATH 2057 Multidimensional Calculus (3)
- PHYS 2203 Introductory Modern Physics (3)
- PHYS 2207 Introductory Modern Physics Laboratory (1)
- ENGL 2000 English Composition (3)
- CSC 1253 Computer Science I with C++ (3) or equivalent programming course
- Area of Concentration Course (3)<sup>2</sup>

#### **Total Semester Hours: 16**

#### Semester 4

**CRITICAL:** "C" or better in MATH 2057 and PHYS 1202/PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

- MATH 2090 Elementary Differential Equations and Linear Algebra (4)
- PHYS 2221 Introduction to Mechanics (3)
- PHYS 3098 Instrumentation Electronics for Scientists (3)
- Area of Concentration Course (3)<sup>2</sup>
- BIOL 1001 General Biology (3) or
- BIOL 1201 Biology for Science Majors I (3)

#### Total Semester Hours: 16

## Semester 5

**CRITICAL:** "C" or better in MATH 2090 and PHYS 2203; 2.0 Cumulative, LSU and Semester GPA.

- PHYS 2231 Electricity and Magnetism (3)
- PHYS 2411 Computational Science I (3)

- Area of Concentration Course (3)<sup>2</sup>
- General Education Course Social Sciences (2000-level) (3)
- Approved Elective (3)

#### **Total Semester Hours: 15**

## Semester 6

- PHYS 4125 Thermodynamics and Statistical Mechanics (3)
- PHYS 4132 Electromagnetism and Electromagnetic Waves (3)
- Foreign Language Course (4)
- Area of Concentration Course (3)<sup>2</sup>

#### **Total Semester Hours: 13**

## Semester 7

- General Education course Social Sciences (3)
- Area of Concentration Courses (6)<sup>2</sup>
- Approved Electives (6)

#### **Total Semester Hours: 15**

## Semester 8

- Area of Concentration Courses  $(6)^2$
- Approved Electives (8)

## **Total Semester Hours: 14**

## 120 Total Sem. Hrs.

<sup>1</sup> - Students may take the complete PHYS 2110, PHYS 2112, PHYS 2113 sequence in place of the PHYS 1201, PHYS 1202 sequence. A student who chooses the three semester sequence will require one less credit hour from free electives.

<sup>2</sup> - At least 24 semester hours from an approved discipline outside of the Department of Physics & Astronomy; any second area may be chosen with consent of the dean and department advisor. The approved area form must be submitted no later than the sophomore year.

# Secondary Education - Physics

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in MATH 1022/MATH 1023 and ENGL 1001; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 2: "C" or better in MATH 1550; 2.0 Semester GPA; 2.5 Cumulative and LSU GPA.

SEMESTER 3: "C" or better in MATH 1552 and PHYS 1201/PHYS 2110; Admission to the College; 2.0 Semester GPA; 2.5 Cumulative and LSU GPA.

SEMESTER 4: "C" or better in MATH 2057 and PHYS 1202/PHYS 2113; 2.0 Semester GPA; 2.5 Cumulative and LSU GPA.

SEMESTER 5: "C" or better in MATH 2090 and PHYS 2203; 2.0 Semester GPA; 2.5 Cumulative and LSU GPA.

This concentration is part of the Geaux Teach–Math and Sciences Program. Students will obtain a degree in physics and, upon completing this concentration and meeting any additional requirements of the Louisiana Department of Education, will be eligible for certification in the state of Louisiana as teachers in grades 6-12.

# Semester 1

**CRITICAL:** "C" or better in MATH 1022/MATH 1023 and ENGL 1001; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 1001 English Composition (3)
- BASC 2010 Inquiry Approaches to Math and Science Teaching (1)
- MATH 1550 Analytic Geometry and Calculus I (5)
- PHYS 1201 General Physics for Physics Majors (4) <sup>1</sup>
- PHYS 1208 General Physics Laboratory for Physics Majors (1)

# Total Semester Hours: 14

# Semester 2

**CRITICAL:** "C" or better in MATH 1550; 2.0 Semester GPA; 2.5 Cumulative and LSU GPA.

- BASC 2011 Inquiry-Based Math and Science Lesson Design (1)
- MATH 1552 Analytic Geometry and Calculus II (4)
- PHYS 1202 General Physics for Physics Majors (4)<sup>1</sup>

- PHYS 1209 General Physics Laboratory for Physics Majors (1)
- General Education Course Humanities (ENGL/HNRS 2000-Level) (3)
- General Education course Arts (3)

## Total Semester Hours: 16

## Semester 3

**CRITICAL:** "C" or better in MATH 1552 and PHYS 1201/PHYS 2110; Admission to the College; 2.0 Semester GPA; 2.5 Cumulative and LSU GPA.

- EDCI 2500 Knowing and Learning in Mathematics and Science (3) <sup>2</sup>
- MATH 2057 Multidimensional Calculus (3)
- PHYS 2203 Introductory Modern Physics (3)
- ENGL 2000 English Composition (3)
- PHYS 2207 Introductory Modern Physics Laboratory (1)
- CSC 1253 Computer Science I with C++ (3) or equivalent programming course

# Total Semester Hours: 16

# Semester 4

**CRITICAL:** "C" or better in MATH 2057 and PHYS 1202/PHYS 2113; 2.0 Semester GPA; 2.5 Cumulative and LSU GPA.

- EDCI 3550 Classroom Interactions (3)
- MATH 2090 Elementary Differential Equations and Linear Algebra (4)
- PHYS 2221 Introduction to Mechanics (3)
- PHYS 3098 Instrumentation Electronics for Scientists (3)
- BIOL 1001 General Biology (3) or
- BIOL 1201 Biology for Science Majors I (3)

## Total Semester Hours: 16

# Semester 5

**CRITICAL:** "C" or better in MATH 2090 and PHYS 2203; 2.0 Semester GPA; 2.5 Cumulative and LSU GPA.

- PHIL 2786 History & Philosophy of Science, Technology, and Mathematics (3)
- PHYS 2231 Electricity and Magnetism (3)
- PHYS 2411 Computational Science I (3)
- General Education Course Humanities (3)
- ASTR 1101 The Solar System (3) or
- CHEM 1201 General Chemistry I (3)

## Total Semester Hours: 15

## Semester 6

- PHYS 4005 Science Research Methods (3)
- ASTR 1102 Stellar Astronomy (3) or
- CHEM 1202 General Chemistry (3)
- PHYS 4000-Level Courses (6)<sup>2</sup>
- Foreign Language Course (4)

## Total Semester Hours: 16

## Semester 7

- EDCI 4500 Instructional Models for Mathematics and Science (3)
- General Education course Social Sciences (3)
- Approved Electives (9)

## Total Semester Hours: 15

# Semester 8

- EDCI 4006 Student Teaching in Grades 6-12 Mathematics and Sciences (9)
- EDCI 3136 Reading in the Content Areas (3)

## Total Semester Hours: 12

# 120 Total Sem. Hrs.

<sup>1</sup> - Students may take the complete PHYS 2110, PHYS 2112, PHYS 2113 sequence in place of the PHYS 1201,

PHYS 1202 sequence. A student who chooses the three semester sequence will require one less credit hour from free electives.

<sup>2</sup> - EDCI 2500 will count as one of the General Education social science courses. Some general education courses are taken in different years than in the standard curriculum. Students should plan their course work so that the last semester of the senior year can accommodate the 12 hours that are required to be taken concurrently (EDCI 4006 and EDCI 3136). PHYS 4125 and PHYS 4132 are not required for this concentration, but may be used as physics 4000 electives.

# **PRINT ONLY - SCI- PROGRAM FILTERS**

# **College of Science**

• • • • • • • • • • • • • • • • • • • •	B. PETERSON
Dean	
ANDREW W. MAVERICK	SAMUEL J. BENTLEY
Associate Dean for Student Services	Associate Dean for Research
ZAKIYA S. WILSON-KENNEDY	CARLY L. BLOSS
Assistant Dean for Diversity and Inclusion	Assistant Dean for Finance and Administratio
JAMES J. MADDEN	KATHRYN T. LOVELESS
Director of Special Programs	Assistant Dean for Student Services
ROBBY S. BOWEN	SHALLENE E. JOSEPH
Director of Pre-Health Programs	Academic Counselor
ERIN F. SNYDER	ERIN D. PECK
Academic Coordinator	Academic Counselor
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Academic Coordinator	Recruitment Coordinator
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# **Departments and Curricula**

- Department of Biological Sciences
- Department of Chemistry
- Department of Geology & Geophysics

- Department of Mathematics
- Department of Physics & Astronomy

The College of Science offers preparation for careers in biochemistry, biological sciences, chemistry, geology and geophysics, mathematics, microbiology, and physics and astronomy. Students are also provided strong academic backgrounds for professional study in medicine, dentistry, pharmacy, and many other careers that require in-depth study of science and mathematics.

The departments within the college, the various curricula, and the degrees that may be earned are shown in the chapter "Degree Programs." These curricula provide broad general education as well as knowledge of the structure of science. Students in the college may also choose curricula that provide pre-medical or pre-dental preparation, including curricula in biochemistry, biological sciences, chemistry with a pre-professional concentration, and physics with a medical physics concentration. Classroom and laboratory study may be supplemented by contact with active research programs.

The departments of the college offer work leading to bachelor's, master's, and doctoral degrees.

# **Degree Programs**

All undergraduate degrees in the College of Science are Bachelor of Science degrees. The following programs are offered by the College of Science:

- Biochemistry
- Biological Sciences
- Microbiology
- Chemistry
- Geology
- Mathematics
- Physics

#### **Admission Requirements**

Students who contemplate entering this college should give special attention to the mathematics and science courses they select and should consult a representative of the department they plan to enter prior to completing their initial registration.

Admission requests to the College of Science must be submitted to 124 Hatcher Hall by the last day to add courses for the semester in which the student is seeking admission. For more information, please see the "Apply for Admission to the College of Science" website.

Students will be eligible for admission to the College of Science when they:

- have earned 24 or more semester hours of credit in courses numbered 1000 or above;
- have maintained a grade point average of at least 2.00 on both LSU and cumulative averages;
- have passed all courses in mathematics and science with grades of "C-" or better or received special approval of the dean of the college;
- have passed ENGL 1001 or the equivalent with a grade of "C-" or better;

• have earned credit in either MATH 1022, MATH 1023, MATH 1550, or MATH 1551 with a grade of "C-" or better. In addition to the above requirements, students majoring in Biochemistry, Biological Sciences, and Microbiology must have earned credit in BIOL 1201; BIOL 1202; CHEM 1201; and MATH 1550 before entry into the College of Science.

In addition to the above requirements, students with a Secondary Education concentration must achieve the following before entry into the College of Science:

- 2.50 LSU and Cumulative GPA
- Minimum ACT composite of 22/SAT composite of 1030 OR earned passing scores on the Praxis Core Academic Skills for Educators (PRAXIS CORE)
- Submit the College of Science Secondary Education Application and Conduct Form

Students transferring from another institution must meet university transfer admission requirements. Transfer students must also meet the current admission requirements of the College of Science and receive approval of the dean of the college.

Students admitted to the College of Science that plan to enroll in colleges or universities other than LSU-Baton Rouge Campus for academic credit must obtain *prior approval* from the dean on a course-specific basis. All questions regarding credit earned while in high school (ie: AP, CLEP, Dual Enrollment) may be directed to the Office of Undergraduate Admissions.

# **Degree Requirements of the College**

The college offers the bachelor's degree in curricula designed to give students a thorough education in a particular scientific discipline. In addition, a core of material representing a broad exposure to the human cultural heritage is an integral part of the curricula in the college. That core consists of the following course work:

**English** • Nine semester hours including ENGL 1001, ENGL 2000, and three hours chosen from 2000-level or above English or Honors course from the general education humanities list. Some curricula require an additional three hours in English.

**Mathematics** • A minimum of five semester hours of calculus (MATH 1550). Most curricula require additional credits in mathematics. Degree credit will not be allowed for mathematics courses numbered below 1550.

**Foreign Language** • Students may satisfy the college foreign language requirement by passing four semester hours in foreign language. Some curricula require eight semester hours in a single foreign language.

International students whose native language is not English and who did not attend an English-speaking high school may satisfy the foreign language requirement as follows:

- As shown above (in a language other than the student's native language); or
- By passing six to nine hours (depending on curriculum) in the student's native language in courses that may be taken for credit by native speakers of the language; or
- By taking six to nine hours (depending on curriculum) of English and/or speech (CMST) above the minimum requirements in the curriculum for the BS degree. The courses must be pre-approved by the dean and must be taken at LSU. At least three hours must be at the 2000-level or above

**Sciences** • Eleven hours including a two-semester sequence of study in a biological science or a physical science and a onesemester course in the alternative field not chosen for the one-year requirement. The one-year sequence must include two hours of laboratory credit. Courses selected to meet this requirement must be chosen from courses offered by departments in the College of Science and come from the approved list.

Arts, Humanities, and Social Sciences • These hours must be taken from the General Education list.

- Arts Three hours
- Humanities Nine hours. In some curricula, three hours chosen from the general education humanities list, in addition to the English and foreign language requirements described above.
- Social Sciences Six hours. At least three hours must be at the 2000 level or above.

#### Academic Policies of the College

- All students must complete a curriculum established by their department and approved by the faculty and the dean of the college.
- No curriculum in the college requires less than 120 semester hours; some curricula require more.
- University and College Residency Policies:
  - University Residency: LSU requires all candidates for bachelor's degrees fulfill a minimum residence requirement of at least 25 percent of the total number of hours required for the degree at this university.
  - College of Science Residency: Students in all degree programs of the college *must earn at least 24 of the last 30 semester hours* offered toward their degrees while *admitted to the College of Science* at LSU.
  - Course Residency: Students in all degree programs of the college must earn at least 18 credit hours of math and science courses on the LSU-Baton Rouge campus. These courses must be required for the degree and offered by departments in the College of Science.
    - In all degree programs, at least nine of these 18 hours must be in courses numbered 3000 or above and offered by the department administering the major program.
    - Students majoring in Biological Sciences, Microbiology, or Biochemistry may use a maximum of three semester hours in research courses (BIOL 3999) toward their 18-hour course residency requirement. However, research courses cannot be used toward the upper-level portion of this requirement (9 hours of courses numbered 3000 or higher).

- o Courses used to satisfy college residency requirements must be passed with a grade of "C-" or better.
- Independent & Distance Learning courses, Online Distance Learning courses, and courses in which credit was earned through credit examination may not be used to satisfy the college residence requirements.
- Grade and Satisfactory Academic Progress Requirements
  - The following courses must be passed with a grade of "C-" or better:
    - All required science, computer science, and mathematics courses
    - All restricted, second discipline, and advanced sciences electives
    - ENGL 1001 and ENGL 2000.
  - If a student makes a "D" or "F" in a course requiring a "C-" or better, the course must be taken and not dropped the next semester the student is in residence and the course is offered. Students who do not comply with this policy will be placed on academic probation.
  - Required courses in English and Mathematics must be scheduled each semester until they are satisfactorily passed. Sequential scheduling of courses in the major field is necessary.
  - o Students are expected to make reasonable and satisfactory progress in a degree program.
  - A required course may be dropped *once*, but normally, *not* a second time.
- Approved Elective Requirements:

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- Non-participation courses in kinesiology may be taken for elective credit. A maximum of three semester hours will be allowed in kinesiology participation (activity) courses.
- Twelve semester hours of ROTC may be allowed for degree credit, with no more than six of the twelve semester hours in courses numbered below 3000. However, the sum of basic (1000/2000 level) ROTC course credits and kinesiology activity course credits allowed toward the degree may not exceed six semester hours.
- Students may choose any degree credit courses offered by the university as free electives; however, major specific exclusions exist and are noted on individual degree audits. Students are encouraged to consult a college advisor for more information.
- Graduation Requirements:
  - Application for the bachelor's degree must be made in writing. Students must complete a graduation contract, approved by the dean of the college, during the semester prior to the semester in which the degree is to be awarded.
  - In order to meet graduation requirements, students must have a 2.00 LSU and cumulative grade point average. A 2.50 LSU and cumulative grade point average is required for students graduating in any of the secondary education concentrations.

# **College Probation**

A student in the College of Science will be placed on College probation if they:

- fail to earn a 2.00 semester average in a regular semester or a summer term;
- do not remediate course deficiencies during the next semester the course is offered;
- fail to adhere to the Academic Policies of the College; or
- enter the college with deficiencies.

At the discretion of the dean, a student who is on college probation and fails to meet academic requirements, including earning a 2.00 or better semester average and/or remediating course deficiencies, will be declared ineligible to continue in the college. Students declared ineligible to continue in the college must choose a new major better aligned with their abilities and interests outside the College of Science. Students who have been dropped may petition the College of Science for a readmission plan via the appeal process; however, readmission is not guaranteed. Students seeking readmission are encouraged to schedule an appointment with a college academic advisor.

A student on college probation who earns a 2.00 or better semester GPA, remediates course deficiencies, and makes satisfactory progress in the degree program will be removed from college probation. If a student is unable to remediate course deficiencies due to fall/spring only course options, that student will be continued on college probation until the course is offered for remediation.

# Earning Two Degrees or one Degree with Two Majors

With the dean's approval, a student may be enrolled in two bachelor's degree programs concurrently and thereby either earn two degrees, or earn one degree with two majors listed on the transcript, provided all requirements are completed as of the same commencement.

A student may earn one degree, with two majors listed on the transcript (a "Double Major"), by completing the residence and academic requirements for each major and the degree program to which it belongs.

A student may earn two degrees (a "Dual Degree") by, in addition to completing residence and academic requirements for each major, earning 30 hours more than required for the degree that requires the fewer number of hours.

If the two programs are in different colleges, the student must be accepted for admission to both colleges and must adhere to the regulations of both colleges. The student must declare a home college, where registration will be initiated and permanent files maintained, and must maintain contact with the second college to ensure that satisfactory progress is being made toward the requirements of its degree program. Students pursuing degrees in different colleges must complete a graduation contract with both colleges.

# **Pre-Medical and Pre-Dental Counseling**

Pre-Health Advisors are available to help students with applications to medical and dental schools. This application process begins one and one-half years prior to professional school entry. Students are encouraged to begin researching professional school admission requirements and information regarding the application process as early as possible. Information regarding the pre-medical/pre-dental program at LSU and the application process is available online at the College of Science's Premedical/Predental Advising website.

The College of Science sponsors the Pre-Medical/Pre-Dental Review Committee that provides letters of evaluation for LSU students applying to professional schools. Students wishing to use the services of the LSU Pre-Medical/Pre-Dental Review Committee must: (1) have a minimum 3.0 cumulative and science GPA, (2) have been enrolled on the LSU main campus as a full time student for at least two semesters, (3) attend a mandatory informational meeting during the fall of their application year (typically the junior year), and (4) meet all registration deadlines. The College of Science maintains an email listserv for pre-medical/pre-dental students as well as social media sites to communicate with students. Information about joining these groups can be found on the Premedical/Predental Advising website.

# **Pass-Fail Option**

Students in the College of Science may register for courses in the college on a pass-fail basis under the following conditions:

- Only students with a 2.50 average or better may participate.
- Only *free elective* courses may be taken on a pass-fail basis. Required courses, restricted electives, courses offered by the Ogden Honors College, courses required for a minor, and courses germane to the major and the career for which the student is preparing may not be taken on a pass-fail basis.
- Eligible students may take one course per semester, up to a total of 12 hours toward the degree, on a pass-fail basis.
- Students must have written permission, by signatures on a petition form, from the dean of this college, the instructor of the course, and the student's department chair.
- Registration for a course on a pass-fail basis will not be permitted until the required work in the same area has been satisfactorily completed.
- Pass-fail registration must be completed before the final day for adding courses.

**Students from other colleges** who wish to register for courses in this college on a pass-fail basis will present a petition form to the dean of this college. If the petition is approved, the student will then present the form to the instructor concerned for the appropriate action.

Courses offered by the College of Science that are required in a student's curriculum or are normally considered important in preparation for the student's career will not be approved on a pass-fail basis.

# **Distance Learning Programs Credit and Intersession Credit**

LSU Continuing Education offers Online Distance Learning (ODL) courses. Credit earned through this LSU division may be accepted toward meeting degree requirements only with prior approval of the dean of the college and may not exceed a total of 12 hours.

Students in residence may take ODL courses only in exceptional cases (e.g., conflicts between single sections of required courses) and with specific written approval of the dean of the college. Students are not permitted to enroll in Math or Science courses via ODL.

Students may not be enrolled in ODL courses during the semester in which they intend to graduate.

Students in the College of Science may not register for more than **three** semester hours of credit during Intersession without approval of the dean.

# **Minor Field Requirements (Optional)**

A student in the College of Science may earn a minor in a second field under the following conditions:

- The minor must include at least 15 semester hours of course work, of which at least six semester hours must be taken on this campus and at least three of the six hours must be at the 3000- or 4000-level.
- Each course used in the minor must be passed with a grade of "C-" or better.
- Courses used for the minor may not be taken on a pass/fail basis.
- If a student takes a minor course during a semester abroad, the course must be completed for a letter grade. "S/U Grading" will not be approved for minor courses taken abroad.
- All minors must declared with the College of Science and approved by the dean.

The department offering the minor may impose additional requirements; the specific requirements of the department must be stated in the catalog.

Students in other colleges who wish to obtain a minor in one of the departments of the College of Science must meet the same requirements listed above.

# **Teacher Preparation Program for Grades 6-12**

The departments of Biological Sciences, Chemistry, Mathematics, and Physics & Astronomy offer undergraduate degree programs with an area of concentration in secondary education (middle school and high school). Students in the program may receive a BS in biological sciences, chemistry, mathematics, or physics and qualify for teacher certification. The curricula have been developed cooperatively with faculty in the College of Human Sciences and Education and include courses taught jointly by faculty in the College of Science and the College of Human Sciences and Education. Students completing these degree programs and meeting any additional requirements of the Louisiana Department of Education will be eligible for certification in the state of Louisiana as teachers in grades 6-12.

The following requirements pertain to students enrolled in the secondary education concentration:

Admission Requirements:

- Minimum cumulative and LSU grade point average of 2.50
- Passing scores on all parts of the Praxis Core Academic Skills for Educators (PRAXIS CORE) or minimum ACT composite score of 22 or minimum SAT composite score of 1030

Retention Requirements:

• Minimum cumulative and LSU grade point average of 2.50 for entry into and continuation in upper-level (3000/4000-level) education courses, including student teaching

Degree Requirements:

- Satisfactory completion of an approved program of study as determined by all of the following: faculty of the college in which the major/concentration resides, the university, and the Louisiana Board of Elementary and Secondary Education
- Minimum cumulative and LSU GPA of 2.50 on all work completed
- Passing scores on all required parts of the Praxis II Series

• Grade of "C-" or higher in course work as specified by the Louisiana Board of Elementary and Secondary Education Application for Student Teaching:

An application for student teaching must be made to the College of Human Sciences and Education Office of Student Services no later than three weeks after classes begin in the semester prior to student teaching. Late applications cannot be guaranteed consideration.

A second option for students interested in middle/high school science teaching is to pursue a traditional bachelor's degree in science and then complete a master's degree in the LSU College of Human Sciences and Education. The master's degree program (Holmes Program) begins in June and requires 12 consecutive months of course work and classroom experience leading to both the master's degree and teaching certification. Information about the program and potential scholarship assistance is available through the College of Human Sciences and Education, Office of Student Services.

# **Department of Biological Sciences**

OFFICE 202 Life Sciences Building

TELEPHONE 225-578-2601

FAX 225-578-2597

WEBSITE www.biology.lsu.edu

#### For information regarding the GRADUATE PROGRAM, click here.

The Department of Biological Sciences offers a comprehensive background in biology for teacher preparation, graduate studies, and for professional programs in medicine, dentistry, pharmacy, and veterinary medicine. The department offers Bachelor of Science degrees in biochemistry, biological sciences, and microbiology. All degrees require a core of departmental courses that include BIOL 1201, BIOL 1202, BIOL 1208, BIOL 1209, BIOL 2051, BIOL 2153, BIOL 3040, and either BIOL 4087 or BIOL 4093 and BIOL 4094. In addition, all students are required to take a specified number of approved biochemistry, biological sciences may fulfill the requirement for these electives with courses from all areas of the department while students seeking the biochemistry and microbiology degrees take courses specific to those degrees. All students in the department may earn a maximum of six hours of BIOL 3999. A maximum of three hours of BIOL 3999 may be taken as advanced biochemistry, biological sciences, or microbiology electives. BIOL 3999 may not be used as a laboratory course. Students may earn more than one degree or one degree with multiple majors in the department but biological science courses numbered 3000 and above (excluding BIOL 3040 and BIOL 4087 or BIOL 4093 and BIOL 4094) may only be applied to one degree or major within the Department of Biological Sciences. This policy also applies to transfer students who enter with a

degree earned in one of the Department of Biological Sciences majors. Majors in the department are ineligible for the departmental minor.

# **Admission into the Department of Biological Sciences**

In addition to admission to the College of Science, entry into any of the three majors (biochemistry, biological sciences, and microbiology) in the Department of Biological Sciences requires earned credit in BIOL 1201 and BIOL 1202; CHEM 1201; and MATH 1550.

# **Biochemistry**, **B.S.**

**Biochemistry** 

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001 and CHEM 1201; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 2: "C" or better in BIOL 1201 and MATH 1550; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 3: "C" or better in BIOL 1202 and CHEM 1202; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 4: "C" or better in CHEM 2261 and MATH 1552; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 5: "C" or better in BIOL 2051 or BIOL 2153; 2.0 Cumulative, LSU and Semester GPA.

# Semester 1

CRITICAL: "C" or better in ENGL 1001 and CHEM 1201; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)
- CHEM 1201 General Chemistry I (3)
- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)

**Total Semester Hours: 15** 

## Semester 2

CRITICAL: "C" or better in BIOL 1201 and MATH 1550; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1)
- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- MATH 1552 Analytic Geometry and Calculus II (4) or
- MATH 1554 Calculus II for Life Sciences (4)

• General Education course - Arts (3)

### Total Semester Hours: 16

### Semester 3

**CRITICAL:** "C" or better in BIOL 1202 and CHEM 1202; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 2051 General Microbiology (4) or
- BIOL 2153 Principles of Genetics (4)
- CHEM 2001 Analytical Chemistry (3)
- CHEM 2261 Organic Chemistry (3)
- PHYS 2001 General Physics I (3)
- PHYS 2108 Introductory Physics Laboratory (1)

### **Total Semester Hours: 14**

### Semester 4

CRITICAL: "C" or better in CHEM 2261 and MATH 1552; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 2153 Principles of Genetics (4) or
- BIOL 2051 General Microbiology (4)
- ENGL 2000 English Composition (3)
- CHEM 2262 Organic Chemistry (3)
- CHEM 2364 Organic Chemistry Laboratory (2)
- PHYS 2002 General Physics II (3)
- PHYS 2109 General Physics Laboratory (1)

Total Semester Hours: 16

## Semester 5

CRITICAL: "C" or better in BIOL 2051 or BIOL 2153; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 4093 General Biochemistry I (3)<sup>2</sup>
- BIOL 3040 Evolution (3)
- Approved Biochemistry Elective (3)<sup>3</sup>
- First Course in Foreign Language Sequence (4)<sup>1</sup>
- General Education course Humanities (English/Honors 2000-level) (3)

## **Total Semester Hours: 16**

# Semester 6

- BIOL 4094 General Biochemistry II (3)<sup>2</sup>
- BIOL 4001 Physical Chemistry (3)
- Second Course in Foreign Language Sequence (4)<sup>1</sup>
- General Education course Humanities (English/Honors 2000-level) (3)

### **Total Semester Hours: 13**

## Semester 7

- BIOL 4385 Biochemistry Laboratory (3)
- Approved Biochemistry Electives (6)<sup>3</sup>
- General Education course Social Sciences (3)
- General Education course Social Sciences (2000-level) (3)

### Total Semester Hours: 15

# Semester 8

- Approved Biochemistry Elective (3)<sup>3</sup>
- Approved Electives (12)

### **Total Semester Hours: 15**

## 120 Total Sem. Hrs.

<sup>1</sup> - OPTION: Complete foreign language requirement (shown in semesters 5 and 6) in semesters 2 and 3 if continuing in the language studied in high school.

<sup>2</sup> - Class is offered in FALL or SPRING only. Check schedule book.

 $^{3}$  - Approved biochemistry electives must come from the following list, must include at least one laboratory course, and must include at least one course from Group 1 and at least two courses from Group 2. Courses from any of the groups can be used for the remainder of the 12-hour requirements:

## Group 1:

- BIOL 4596 Biophysics of Macromolecules (3)
- CHEM 4150 Environmental Chemistry (3)
- CHEM 4160 Industrial Organic Chemistry (3)
- CHEM 4552 Instrumental Methods of Measurement and Analysis (2)
- CHEM 4561 Physical Organic Chemistry (3)
- CHEM 4562 Intermediate Organic Chemistry (3)
- CHEM 4563 Organic Structure Elucidation (3)
- CHEM 4564 Advanced Organic and Inorganic Laboratory (3)
- CHEM 4570 Inorganic Chemistry (3)

### Group 2:

- BIOL 3060 Introductory Plant Physiology (4)
- PLHL 3060 Introductory Plant Physiology (4)
- BIOL 3090 Cell Biology (3)
- BIOL 3156 Developmental Zoology (4)
- BIOL 4097 Biochemistry of Aging (3)
- BIOL 4110 Introductory Microbial Physiology (3)
- BIOL 4132 Eukaryotic Molecular Genetics (3)
- BIOL 4158 Endocrinology (3)
- BIOL 4160 Vertebrate Physiology (3)
- BIOL 4165 Environmental Adaptations (3)
- BIOL 4177 Neurobiology (3)
- BIOL 4246 Microbial Genetics (3)
- BIOL 4400 Molecular Genetics Laboratory (3)
- BIOL 4450 Cell Biology of the Nucleus (3)
- BIOL 4753 Human Molecular Genetics (3)

### Group 3:

BIOL 3999 can also be taken as a biochemistry elective but does not count as a laboratory course.

- BIOL 4002 Insect Biology (3)
- ENTM 4002 Insect Biology (3)
- BIOL 4015 Conservation Biology (4)
- BIOL 4084 Geomicrobiology (3)
- GEOL 4084 Geomicrobiology (3)
- BIOL 4090 Marine and Environmental Microbiology (3)
- OCS 4090 Marine and Environmental Microbiology (3)
- BIOL 4115 Microbial Ecology (3)
- BIOL 4253 Principles of Ecology (3)
- BIOL 4256 Microbial Ecology and Nutrient Cycling in Soils (4)
- AGRO 4056 Microbial Ecology and Nutrient Cycling in Soils (4)
- EMS 4056 Microbial Ecology and Nutrient Cycling in Soils (4)
- BIOL 4262 Marine Communities (3)
- BIOL 4308 Plants in Coastal Environments (3)
- OCS 4308 Plants in Coastal Environments (3)
- BIOL 4020 Taxonomy and Ecology of Wetland Plants (4)
- RNR 4020 Taxonomy and Ecology of Wetland Plants (4)
- BIOL 4041 Plant Taxonomy (4)
- BIOL 4054 Introductory Mycology (4)
- PLHL 4054 Introductory Mycology (4)
- BIOL 4105 Parasitology (3)
- BIOL 4125 Prokaryotic Diversity (3)
- BIOL 4126 Methods in Microbial Diversity (4)
- BIOL 4141 Mammalogy (4)

- BIOL 4142 Ornithology (4)
- BIOL 4145 Ichthyology (4)
- RNR 4145 Ichthyology (4)
- BIOL 4146 Herpetology (4)
- BIOL 4154 Invertebrate Zoology (4)
- BIOL 4162 Food Microbiology (4)
- NFS 4162 Food Microbiology (4)
- BIOL 4163 Industrial Microbiology (4)
- NFS 4163 Industrial Microbiology (4)

# **Biological Sciences Minor**

An undergraduate *minor in biological sciences* is available to students majoring in curricula outside the Department of Biological Sciences. Required courses are BIOL 1201, BIOL 1202, BIOL 1208, BIOL 1209, BIOL 2051, BIOL 2153, BIOL 3040, BIOL 4087, and at least three more hours of biological sciences in a course at the 3000 level (excluding BIOL 3999, BIOL 4003, BIOL 4005) or above (total of 26 hours).

# **Biological Sciences, B.S.**

# **Biological Sciences**

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001 and CHEM 1201; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 2: "C" or better in BIOL 1201 and MATH 1550; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 3: "C" or better in BIOL 1202 and CHEM 1202; Admission to the College; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 4: "C" or better in CHEM 2261; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 4: C of better in CHEM 2201; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 5: "C" or better in BIOL 2051 or BIOL 2153; 2.0 Cumulative, LSU and Semester GPA.

## Semester 1

CRITICAL: "C" or better in ENGL 1001 and CHEM 1201; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)
- CHEM 1201 General Chemistry I (3)
- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)

### **Total Semester Hours: 15**

### Semester 2

CRITICAL: "C" or better in BIOL 1201 and MATH 1550; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1)
- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- MATH 1552 Analytic Geometry and Calculus II (4) or
- MATH 1554 Calculus II for Life Sciences (4) or
- EXST 2201 Introduction to Statistical Analysis (4)
- General Education course Arts (3)

### Semester 3

**CRITICAL:** "C" or better in BIOL 1202 and CHEM 1202; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 2051 General Microbiology (4) or
- BIOL 2153 Principles of Genetics (4)
- CHEM 2261 Organic Chemistry (3)
- First Course in Foreign Language Sequence (4)<sup>1</sup>
- General Education course Humanities (English/Honors 2000-level) (3)

### Total Semester Hours: 14

### Semester 4

CRITICAL: "C" or better in CHEM 2261; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 2153 Principles of Genetics (4) or
- BIOL 2051 General Microbiology (4)
- ENGL 2000 English Composition (3)
- CHEM 2262 Organic Chemistry (3)
- CHEM 2364 Organic Chemistry Laboratory (2)
- Second Course in Foreign Language Sequence (4)<sup>1</sup>

### Total Semester Hours: 16

### Semester 5

CRITICAL: "C" or better in BIOL 2051 or BIOL 2153; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 4087 Basic Biochemistry (4)<sup>2</sup>
- PHYS 2001 General Physics I (3)

- PHYS 2108 Introductory Physics Laboratory (1)
- BIOL 3040 Evolution (3)
- Approved Elective (3)

## Semester 6

- PHYS 2002 General Physics II (3)
- PHYS 2109 General Physics Laboratory (1)
- General Education course Social Sciences (3)
- Approved Bioloigical Sciences Electives (6)<sup>2</sup>
- Approved Elective (3)

### Total Semester Hours: 16

## Semester 7

- General Education course Social Sciences (2000-level) (3)
- Approved Biological Sciences Electives (6)<sup>3</sup>
- Approved Electives (5)

### Total Semester Hours: 14

## Semester 8

- General Education course Humanities (English/Honors 2000-level) (3)
- Approved Biological Sciences Electives (5)<sup>2</sup>
- Approved Electives (7)

## **Total Semester Hours: 15**

## 120 Total Sem. Hrs.

<sup>1</sup> - Option: Begin foreign language requirement (shown in semesters 3 and 4) in Semester 2 if continuing in the language studied in high school.

<sup>2</sup>- Option: BIOL 4087 or BIOL 4093 and BIOL 4094 in consecutive semesters. If student takes BIOL 4093 and BIOL 4094, two hours will apply towards the approved free electives.

<sup>3</sup>- Approved biological sciences electives (17 hours required) are BIOL courses numbered 3000 and higher and must include two courses with laboratories (excluding independent research BIOL 3999). Further, biological sciences electives must include at least one course from three of the following groups:

## 1) molecular and cellular biology:

- BIOL 3090 Cell Biology (3)
- BIOL 3116 Advanced Microbiology Laboratory (3)
- BIOL 4001 Physical Chemistry (3)
- BIOL 4097 Biochemistry of Aging (3)
- BIOL 4104 Histology (4)
- BIOL 4123 Immunology (3)
- BIOL 4124 Microbial Pathogens (3)
- BIOL 4132 Eukaryotic Molecular Genetics (3)
- BIOL 4177 Neurobiology (3)
- BIOL 4190 Introductory Virology (3)
- BIOL 4215 Molecular Biology of Bacterial Disease (3)
- BIOL 4246 Microbial Genetics (3)
- BIOL 4385 Biochemistry Laboratory (3)
- BIOL 4400 Molecular Genetics Laboratory (3)
- BIOL 4450 Cell Biology of the Nucleus (3)
- BIOL 4596 Biophysics of Macromolecules (3)
- BIOL 4753 Human Molecular Genetics (3)

### 2) physiology, anatomy, and development:

- BIOL 3060 Introductory Plant Physiology (4) or
- PLHL 3060 Introductory Plant Physiology (4)
- BIOL 3152 Comparative Anatomy of the Vertebrates (4)
- BIOL 3156 Developmental Zoology (4)
- BIOL 4110 Introductory Microbial Physiology (3)
- BIOL 4155 Environmental Physiology (3)
- BIOL 4158 Endocrinology (3)
- BIOL 4160 Vertebrate Physiology (3)
- BIOL 4165 Environmental Adaptations (3)
- BIOL 4170 Comparative Animal Physiology (3)
- BIOL 4200 Microbial Morphogenesis (3)
- BIOL 4444 Seed Physiology (3) or
- PLHL 4444 Seed Physiology (3)

### 3) ecology and evolution:

- BIOL 4015 Conservation Biology (4) or
- RNR 4015 Conservation Biology (4)
- BIOL 4084 Geomicrobiology (3) or
- GEOL 4084 Geomicrobiology (3)
- BIOL 4090 Marine and Environmental Microbiology (3) or
- OCS 4090 Marine and Environmental Microbiology (3)
- BIOL 4115 Microbial Ecology (3)

- BIOL 4253 Principles of Ecology (3)
- BIOL 4256 Microbial Ecology and Nutrient Cycling in Soils (4) or
- AGRO 4056 Microbial Ecology and Nutrient Cycling in Soils (4) or
- EMS 4056 Microbial Ecology and Nutrient Cycling in Soils (4)
- BIOL 4262 Marine Communities (3)
- BIOL 4308 Plants in Coastal Environments (3) or
- OCS 4308 Plants in Coastal Environments (3)

### 4) organismal diversity:

- BIOL 4002 Insect Biology (3) or
- ENTM 4002 Insect Biology (3)
- BIOL 4020 Taxonomy and Ecology of Wetland Plants (4) or
- RNR 4020 Taxonomy and Ecology of Wetland Plants (4)
- BIOL 4041 Plant Taxonomy (4)
- BIOL 4054 Introductory Mycology (4) or
- PLHL 4054 Introductory Mycology (4)
- BIOL 4105 Parasitology (3)
- BIOL 4125 Prokaryotic Diversity (3)
- BIOL 4126 Methods in Microbial Diversity (4)
- BIOL 4141 Mammalogy (4)
- BIOL 4142 Ornithology (4)
- BIOL 4145 Ichthyology (4) or
- RNR 4145 Ichthyology (4)
- BIOL 4146 Herpetology (4)
- BIOL 4154 Invertebrate Zoology (4)
- BIOL 4162 Food Microbiology (4) or
- NFS 4162 Food Microbiology (4)
- BIOL 4163 Industrial Microbiology (4) or
- NFS 4163 Industrial Microbiology (4)

### Areas of Concentration

Marine Biology

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001 and CHEM 1201; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 2: "C" or better in BIOL 1201 and MATH 1550; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 3: "C" or better in BIOL 1202 and CHEM 1202; Admission to the College; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 4: "C" or better in CHEM 2261; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 5: "C" or better in BIOL 2051 or BIOL 2153; 2.0 Cumulative, LSU and Semester GPA.

### Semester 1

CRITICAL: "C" or better in ENGL 1001 and CHEM 1201; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)
- CHEM 1201 General Chemistry I (3)
- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)

**Total Semester Hours: 15** 

### Semester 2

CRITICAL: "C" or better in BIOL 1201 and MATH 1550; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1)
- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- OCS 1005 Introduction to Oceanography (3)
- MATH 1552 Analytic Geometry and Calculus II (4) or
- MATH 1554 Calculus II for Life Sciences (4) or
- EXST 2201 Introduction to Statistical Analysis (4)

#### **Total Semester Hours: 16**

### Semester 3

**CRITICAL:** "C" or better in BIOL 1202 and CHEM 1202; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 2051 General Microbiology (4) or
- BIOL 2153 Principles of Genetics (4)
- CHEM 2261 Organic Chemistry (3)
- First Course in Foreign Language Sequence (4)<sup>1</sup>
- General Education courses Humanities (English/Honors at the 2000-level) (3)

#### **Total Semester Hours: 14**

### Semester 4

CRITICAL: "C" or better in CHEM 2261; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 2153 Principles of Genetics (4) or
- BIOL 2051 General Microbiology (4)
- ENGL 2000 English Composition (3)
- CHEM 2262 Organic Chemistry (3)
- CHEM 2364 Organic Chemistry Laboratory (2)
- Second Course in Foreign Language Sequence (4)<sup>1</sup>

### **Total Semester Hours: 16**

### Semester 5

CRITICAL: "C" or better in BIOL 2051 or BIOL 2153; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 4087 Basic Biochemistry (4)<sup>2</sup>
- PHYS 2001 General Physics I (3)
- PHYS 2108 Introductory Physics Laboratory (1)
- BIOL 3040 Evolution (3)
- Approved Elective (5)

Total Semester Hours: 16

### Semester 6

- PHYS 2002 General Physics II (3)
- PHYS 2109 General Physics Laboratory (1)
- General Education course Social Sciences (3)
- Approved Biological Sciences Electives (6)<sup>3</sup>
- General Education course Arts (3)

#### **Total Semester Hours: 16**

### Semester 7

- BIOL 4262 Marine Communities (3)
- BIOL 4090 Marine and Environmental Microbiology (3) or
- BIOL 4145 Ichthyology (4) or
- BIOL 4154 Invertebrate Zoology (4)
- Approved Area of Concentration Elective (3)<sup>4</sup>
- Approved Elective (3-4)
- General Education Course Social Sciences (2000-level) (3)

### Semester 8

- General Education course Humanities (English/Honors 2000-level) (3)
- Approved Area of Concentration Electives (3-2)<sup>4</sup>
- Approved Electives (5-6)

Total Semester Hours: 11

### 120 Total Sem. Hrs.

<sup>1</sup> - Option: Complete foreign language requirement (shown in Semester 3 and 4) in Semesters 1 and 2 if continuing in the language studied in high school.

<sup>2</sup> - Option: BIOL 4087 and BIOL 4093 and BIOL 4094 in consecutive semesters. If a student takes BIOL 4093 and BIOL 4094 two hours will apply towards the approved free electives.

<sup>3</sup> - See list and requirements for biological sciences electives here.

<sup>4</sup> - Choose five to six hours from the following: BIOL 3999, BIOL 4020, BIOL 4090, BIOL 4145, BIOL 4154, BIOL 4155, BIOL 4253, BIOL 4254, BIOL 4263, BIOL 4308.

### Secondary Education - Biological Sciences

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001 and CHEM 1201; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 2: "C" or better in BIOL 1201 and MATH 1550; 2.5 Cumulative and LSU GPA; 2.0 Semester GPA. SEMESTER 3: "C" or better in BIOL 1202 and CHEM 1202; Admission to the College; 2.5 Cumulative and LSU GPA; 2.0 Semester GPA. SEMESTER 4: "C" or better in CHEM 2261; 2.5 Cumulative and LSU GPA; 2.0 Semester GPA.

SEMESTER 5: "C" or better in BIOL 2051 or BIOL 2153; 2.5 Cumulative and LSU GPA; 2.0 Semester GPA.

This concentration is part of the Geaux Teach–Math and Sciences Program. Students will obtain a degree in biological sciences and, upon completing this concentration, and meeting any additional requirements of the Louisiana Department of Education, will be eligible for certification in the state of Louisiana as teachers in grades 6-12.

### Semester 1

CRITICAL: "C" or better in ENGL 1001 and CHEM 1201; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)
- CHEM 1201 General Chemistry I (3)
- BASC 2010 Inquiry Approaches to Math and Science Teaching (1)
- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)

### Semester 2

CRITICAL: "C" or better in BIOL 1201 and MATH 1550; 2.5 Cumulative and LSU GPA; 2.0 Semester GPA.

- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1)
- BASC 2011 Inquiry-Based Math and Science Lesson Design (1)
- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- MATH 1552 Analytic Geometry and Calculus II (4) or
- MATH 1554 Calculus II for Life Sciences (4) or
- EXST 2201 Introduction to Statistical Analysis (4)
- General Education course Arts (3)

### Total Semester Hours: 17

### Semester 3

**CRITICAL:** "C" or better in BIOL 1202 and CHEM 1202; Admission to the College; 2.5 Cumulative and LSU GPA; 2.0 Semester GPA.

- BIOL 2051 General Microbiology (4) or
- BIOL 2153 Principles of Genetics (4)
- CHEM 2261 Organic Chemistry (3)
- EDCI 2500 Knowing and Learning in Mathematics and Science (3)
- First Course in Foreign Language Sequence (4)<sup>1</sup>
- General Education course Humanities (English/Honors at the 2000-level) (3)

Total Semester Hours: 17

### Semester 4

CRITICAL: "C" or better in CHEM 2261; 2.5 Cumulative and LSU GPA; 2.0 Semester GPA.

- BIOL 2153 Principles of Genetics (4) or
- BIOL 2051 General Microbiology (4)
- EDCI 3550 Classroom Interactions (3)
- CHEM 2262 Organic Chemistry (3)
- CHEM 2364 Organic Chemistry Laboratory (2)
- Second Course in Foreign Language Sequence (4)<sup>1</sup>

### **Total Semester Hours: 16**

### Semester 5

CRITICAL: "C" or better in BIOL 2051 or BIOL 2153; 2.5 Cumulative and LSU GPA; 2.0 Semester GPA.

- PHIL 2786 History & Philosophy of Science, Technology, and Mathematics (3)
- PHYS 2001 General Physics I (3)
- PHYS 2108 Introductory Physics Laboratory (1)
- ENGL 2000 English Composition (3)
- BIOL 3040 Evolution (3)
- Approved Biological Sciences Electives (4)<sup>2</sup>

### Total Semester Hours: 17

### Semester 6

- BIOL 4087 Basic Biochemistry (4)<sup>3</sup>
- BIOL 4003 Science Teaching in Secondary School III: Instructional Strategies in the Sciences (1)
- BIOL 4005 Science Research Methods (3)
- PHYS 2002 General Physics II (3)
- PHYS 2109 General Physics Laboratory (1)
- Approved Biological Sciences Elective (3)<sup>2</sup>

#### **Total Semester Hours: 15**

### Semester 7

- EDCI 4500 Instructional Models for Mathematics and Science (3)
- Approved Biological Sciences Electives (7)<sup>2</sup>
- General Education course Social Sciences (3)
- General Education course Humanities (English/Honors 2000-level) (3)

### **Total Semester Hours: 16**

### Semester 8

- EDCI 3136 Reading in the Content Areas (3)
- EDCI 4006 Student Teaching in Grades 6-12 Mathematics and Sciences (9)

#### Total Semester Hours: 12

### 126 Total Sem. Hrs.

<sup>1</sup> - Option: Begin foreign language requirement (shown in Semesters 3 and 4) in Semester 1 and 2 if continuing in the language studied in high school.

<sup>2</sup> - See list and requirements for Biological Science electives here.

<sup>3</sup> - Students who have taken both BIOL 4093 and BIOL 4094 may substitute these courses for BIOL 4087.

#### NOTE:

Students must see an advisor in their sophomore year.

EDCI 2500 will count as one of the general education social science courses. Students should plan their course work so that last semester of the senior year can accommodate the 12 hours that are required to be taken concurrently (EDCI 4006 and EDCI 3136).

This concentration requires a total of 126 hours for the degree.

# Microbiology, B.S.

Microbiology

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001 and CHEM 1201; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 2: "C" or better in BIOL 1201 and MATH 1550; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 3: "C" or better in BIOL 1202 and CHEM 1202; Admission to the College; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 4: "C" or better in BIOL 2051; CHEM 2261; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 5: "C" or better in BIOL 2153; 2.0 Cumulative, LSU and Semester GPA.

## Semester 1

CRITICAL: "C" or better in ENGL 1001 and CHEM 1201; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)
- CHEM 1201 General Chemistry I (3)
- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)

### **Total Semester Hours: 15**

### Semester 2

CRITICAL: "C" or better in BIOL 1201 and MATH 1550; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1)
- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- MATH 1552 Analytic Geometry and Calculus II (4) or
- MATH 1554 Calculus II for Life Sciences (4) or

- EXST 2201 Introduction to Statistical Analysis (4)
- General Education course Arts (3)

### Semester 3

**CRITICAL:** "C" or better in BIOL 1202 and CHEM 1202; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 2051 General Microbiology (4) or
- BIOL 2153 Principles of Genetics (4)
- CHEM 2261 Organic Chemistry (3)
- General Education course Humanities (English/Honors 2000-level) (3)
- First Course in Foreign Language Sequence (4)<sup>1</sup>

### **Total Semester Hours: 14**

### Semester 4

CRITICAL: "C" or better in BIOL 2051; CHEM 2261; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 2153 Principles of Genetics (4) or
- BIOL 2051 General Microbiology (4)
- CHEM 2262 Organic Chemistry (3)
- ENGL 2000 English Composition (3)
- Second Course in Foreign Language Sequence (4)<sup>1</sup>
- Approved Elective (2)

Total Semester Hours: 16

## Semester 5

CRITICAL: "C" or better in BIOL 2153; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 3116 Advanced Microbiology Laboratory (3)
- CHEM 2364 Organic Chemistry Laboratory (2)
- PHYS 2001 General Physics I (3)
- PHYS 2108 Introductory Physics Laboratory (1)
- General Education course Social Sciences (3)
- General Education course Humanities (English/Honors 2000-level) (3)

### **Total Semester Hours: 15**

# Semester 6

- BIOL 4110 Introductory Microbial Physiology (3)
- BIOL 3040 Evolution (3)
- PHYS 2002 General Physics II (3)
- PHYS 2109 General Physics Laboratory (1)
- Approved Microbiology Elective (3)<sup>3</sup>
- Approved Elective (3)

# Total Semester Hours: 16

# Semester 7

- BIOL 4087 Basic Biochemistry (4)<sup>2</sup>
- BIOL 4246 Microbial Genetics (3)
- Approved Microbiology Electives (4)<sup>3</sup>
- General Education course Social Sciences (2000-level) (3)

# Total Semester Hours: 14

# Semester 8

- BIOL 4115 Microbial Ecology (3) or
- BIOL 4125 Prokaryotic Diversity (3)
- Approved Microbiology Elective (3)<sup>3</sup>
- Approved Electives (8)

## Total Semester Hours: 14

# 120 Total Sem. Hrs.

<sup>1</sup> - OPTION: Begin foreign language requirement (shown in Semesters 3 and 4) in Semester 2 if continuing in the language studied in high school.

 $^2$  - Option: BIOL 4087 or BIOL 4093 and BIOL 4094 in consecutive semesters. If student takes BIOL 4093 and BIOL 4094, two hours will apply toward the approved free electives.

<sup>3</sup> - APPROVED MICROBIOLOGY ELECTIVES (10 hrs required) must come from the following list and must include at least two laboratory courses (excluding independent research BIOL 3999):

- BIOL 3090 Cell Biology (3)
- BIOL 3999 Undergraduate Research in Biological Sciences (1-3)
- BIOL 4054 Introductory Mycology (4) or
- PLHL 4054 Introductory Mycology (4)

- BIOL 4084 Geomicrobiology (3) or
- GEOL 4084 Geomicrobiology (3)
- BIOL 4090 Marine and Environmental Microbiology (3) or
- OCS 4090 Marine and Environmental Microbiology (3)
- BIOL 4105 Parasitology (3)
- BIOL 4106 Parasitology Laboratory (1)
- BIOL 4115 Microbial Ecology (3)
- BIOL 4123 Immunology (3)
- BIOL 4124 Microbial Pathogens (3)
- BIOL 4125 Prokaryotic Diversity (3)
- BIOL 4126 Methods in Microbial Diversity (4)
- BIOL 4132 Eukaryotic Molecular Genetics (3)
- BIOL 4162 Food Microbiology (4) or
- NFS 4162 Food Microbiology (4)
- BIOL 4163 Industrial Microbiology (4) or
- NFS 4163 Industrial Microbiology (4)
- BIOL 4190 Introductory Virology (3)
- BIOL 4200 Microbial Morphogenesis (3)
- BIOL 4215 Molecular Biology of Bacterial Disease (3)
- BIOL 4256 Microbial Ecology and Nutrient Cycling in Soils (4) or
- AGRO 4056 Microbial Ecology and Nutrient Cycling in Soils (4) or
- EMS 4056 Microbial Ecology and Nutrient Cycling in Soils (4)
- BIOL 4400 Molecular Genetics Laboratory (3)

# **Department of Chemistry**

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#### For information regarding the GRADUATE PROGRAM, click here.

Students obtain a thorough working knowledge of the fundamentals of chemistry, supplemented by study in physics, mathematics, and other sciences. The curriculum is further enriched by the requirement of a broad basic background in the social sciences and humanities. The department offers special lecture and laboratory courses for its majors.

Chemistry majors must select one of nine areas of concentration, preferably in their sophomore year. The different concentrations can be grouped according to whether or not they prepare the student for an *active career in chemistry* or for *another profession*, such as medicine, dentistry, or veterinary medicine.

Active Careers in Chemistry • These concentrations are recommended for students who seek a professional career in chemistry or plan to pursue graduate studies in chemistry or a closely related field. The areas of concentration listed in this section are certified by the American Chemical Society. Students successfully completing those concentrations will receive a certificate upon graduation. The chemistry concentration provides a broad background in chemistry. It is recommended to students who desire a career in chemistry but do not yet know which branch of chemistry best suits them. The biological chemistry concentration ties knowledge of chemistry to the structure of living systems. The chemical physics concentration investigates chemical systems based on fundamental physical, mathematical, and theoretical principles. The environmental chemistry concentration emphasizes chemistry in various environmental fields. The materials concentration connects chemistry and materials used in electronic, optical, and other devices. The polymer concentration explores synthetic and biological macromolecules, including plastics.

The secondary education concentration leads to certification as a chemistry teacher in grades seven through 12.

**Chemistry for Other Professions** • The *pre-professional* concentration is designed primarily for students who will apply for graduate education in another profession, such as medicine, dentistry, or veterinary medicine. The *chemistry and a second discipline* concentration allows students to develop their interests and abilities in other disciplines outside of chemistry, whether or not graduate education is contemplated. Students may choose second disciplines such as computer science, geology, engineering, business administration, history, foreign languages, political science, and others.

# **Chemistry Minor**

Requirements are a minimum of 23 semester hours of chemistry: CHEM 1201, CHEM 1202, CHEM 1212 (or CHEM 1421, CHEM 1422, CHEM 1431) and a minimum of 15 semester hours at 2000 level or above. These additional 15 hours must include a two to three semester laboratory course and at least six semester hours at the 3000 level or above. The following courses cannot be taken to meet the requirements of the *minor in Chemistry*: CHEM 2900, CHEM 3900, CHEM 4003, and CHEM 4005. Interested students should contact the Undergraduate Chemistry Office.

# Chemistry, B.S.

Areas of Concentration

**Biological Chemistry** 

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001 and CHEM 1201/CHEM 1421; 2.0 Cumulative, LSU and Semester GPA.
SEMESTER 2: "C" or better in MATH 1550/MATH 1551; 2.0 Cumulative, LSU and Semester GPA.
SEMESTER 3: "C" or better in CHEM 1212/CHEM 1431 and MATH 1552; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.
SEMESTER 4: "C" or better in CHEM 2261/CHEM 2461 and PHYS 2110; 2.0 Cumulative, LSU and Semester GPA.
SEMESTER 5: "C" or better in CHEM 2262/CHEM 2462 and PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

Students completing this concentration will receive American Chemical Society certification.

### Semester 1

CRITICAL: "C" or better in ENGL 1001 and CHEM 1201/CHEM 1421; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)

- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- CHEM 1201 General Chemistry I (3) or
- CHEM 1421 HONORS: General Chemistry (3)

### Semester 2

CRITICAL: "C" or better in MATH 1550/MATH 1551; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1)
- CHEM 1202 General Chemistry (3) or
- CHEM 1422 HONORS: General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2) or
- CHEM 1431 HONORS: General Chemistry Laboratory (2)
- MATH 1552 Analytic Geometry and Calculus II (4)
- General Education course Arts (3)

**Total Semester Hours: 16** 

### Semester 3

**CRITICAL:** "C" or better in CHEM 1212/CHEM 1431 and MATH 1552; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

- CHEM 2001 Analytical Chemistry (3)
- CHEM 2002 Analytical Chemistry Laboratory (1)
- MATH 2057 Multidimensional Calculus (3)
- PHYS 2110 Particle Mechanics (3)
- PHYS 2108 Introductory Physics Laboratory (1)
- CHEM 2261 Organic Chemistry (3) or
- CHEM 2461 HONORS: Organic Chemistry I (3)
- Approved Elective (3)

Total Semester Hours: 17

### Semester 4

CRITICAL: "C" or better in CHEM 2261/CHEM 2461 and PHYS 2110; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 2000 English Composition (3)
- PHYS 2113 Fields: Gravity, Electricity, and Magnetism (3)
- PHYS 2109 General Physics Laboratory (1)
- CHEM 2262 Organic Chemistry (3) or
- CHEM 2462 HONORS: Organic Chemistry II (3)
- CHEM 2364 Organic Chemistry Laboratory (2) or
- CHEM 2463 HONORS: Organic Chemistry Laboratory (2)
- Approved Elective (3)

### Semester 5

CRITICAL: "C" or better in CHEM 2262/CHEM 2462 and PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

- CHEM 3491 Physical Chemistry I (3)
- PHYS 2112 Fluids, Thermodynamics, Waves, and Modern Physics (3)
- BIOL 2051 General Microbiology (4) or
- BIOL 2153 Principles of Genetics (4)
- First Course in Foreign Language Sequence (4)

### **Total Semester Hours: 14**

### Semester 6

- CHEM 3492 Physical Chemistry II (3)
- CHEM 3493 Physical Chemistry Laboratory (3)
- CHEM 4564 Advanced Organic and Inorganic Laboratory (3)
- General Education course- Humanities (English/HNRS 2000-level) or Second Course in Foreign Language Sequence (3-4)
- General Education course Social Sciences (3)<sup>1</sup>

### Total Semester Hours: 15-16

### Semester 7

- BIOL 4093 General Biochemistry I (3)
- CHEM 4552 Instrumental Methods of Measurement and Analysis (2)
- CHEM 4570 Inorganic Chemistry (3)
- BIOL 3999 Undergraduate Research in Biological Sciences (1-3) or
- CHEM 3900 Research in Chemistry (1-3)<sup>2</sup>

• General Education course - Humanities (ENGL/HNRS 2000-level) (3)

### **Total Semester Hours: 13**

### Semester 8

- BIOL 4094 General Biochemistry II (3)
- BIOL 4385 Biochemistry Laboratory (3)
- CHEM 4553 Laboratory in Instrumental Methods of Measurement and Analysis (2)
- Approved Electives (4-3)
- General Education course Social Sciences (3)<sup>1</sup>

### Total Semester Hours: 15-14

### 120 Total Sem. Hrs.

<sup>1</sup> - One General Education Social Science course must be at least 2000-level.

<sup>2</sup> - CHEM 3900 in an approved biological chemistry project or BIOL 3999 including a comprehensive written report filed with the Department of Chemistry's Undergraduate Office.

\*\*The biological chemistry, pre-professional, and secondary education concentrations also require BIOL 1208 and BIOL 1209 laboratories.

# Chemistry

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001 and CHEM 1201/CHEM 1421; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 2: "C" or better in MATH 1550/MATH 1551; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 3: "C" or better in CHEM 1212/CHEM 1431 and MATH 1552; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 4: "C" or better in CHEM 2261/CHEM 2461 and PHYS 2110; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 5: "C" or better in CHEM 2262/CHEM 2462 and PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

Recommended for preparation as a chemical professional or for entrance to graduate study in chemistry. Students completing this concentration will receive American Chemical Society certification.

### Semester 1

CRITICAL: "C" or better in ENGL 1001 and CHEM 1201/CHEM 1421; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1201 Biology for Science Majors I (3)
- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- CHEM 1201 General Chemistry I (3) or

- CHEM 1421 HONORS: General Chemistry (3)
- General Education course Arts (3)

### Semester 2

CRITICAL: "C" or better in MATH 1550/MATH 1551; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1202 Biology for Science Majors II (3)
- MATH 1552 Analytic Geometry and Calculus II (4)
- CHEM 1202 General Chemistry (3) or
- CHEM 1422 HONORS: General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2) or
- CHEM 1431 HONORS: General Chemistry Laboratory (2)
- Approved Elective (3)

### Total Semester Hours: 15

### Semester 3

**CRITICAL:** "C" or better in CHEM 1212/CHEM 1431 and MATH 1552; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

- CHEM 2001 Analytical Chemistry (3)
- CHEM 2002 Analytical Chemistry Laboratory (1)
- MATH 2057 Multidimensional Calculus (3)
- PHYS 2110 Particle Mechanics (3)
- PHYS 2108 Introductory Physics Laboratory (1)
- CHEM 2261 Organic Chemistry (3) or
- CHEM 2461 HONORS: Organic Chemistry I (3)
- Approved Elective (3)

Total Semester Hours: 17

### Semester 4

CRITICAL: "C" or better in CHEM 2261/CHEM 2461 and PHYS 2110; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 2000 English Composition (3)
- PHYS 2113 Fields: Gravity, Electricity, and Magnetism (3)
- PHYS 2109 General Physics Laboratory (1)

- CHEM 2262 Organic Chemistry (3) or
- CHEM 2462 HONORS: Organic Chemistry II (3)
- CHEM 2364 Organic Chemistry Laboratory (2) or
- CHEM 2463 HONORS: Organic Chemistry Laboratory (2)
- Computer Science Programming Course (3)

### Semester 5

CRITICAL: "C" or better in CHEM 2262/CHEM 2462 and PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 2083 The Elements of Biochemistry (3)
- PHYS 2112 Fluids, Thermodynamics, Waves, and Modern Physics (3)
- CHEM 3491 Physical Chemistry I (3)
- First Course in Foreign Language Sequence (4)
- General Education course Humanities (English/honors 2000-level) (3)

### Total Semester Hours: 16

### Semester 6

- CHEM 3492 Physical Chemistry II (3)
- CHEM 3493 Physical Chemistry Laboratory (3)
- General Education course Humanities (English/honors 2000-level) or Second Course in Foreign Language Sequence (3-4)
- Approved Electives (4-3)

### Total Semester Hours: 13

### Semester 7

- CHEM 3900 Research in Chemistry (1-3)<sup>2</sup>
- CHEM 4552 Instrumental Methods of Measurement and Analysis (2)
- CHEM 4570 Inorganic Chemistry (3)
- General Education course Social Sciences (3)<sup>1</sup>
- Chemistry Elective (3)<sup>3</sup>

### Total Semester Hours: 13

### Semester 8

- CHEM 4553 Laboratory in Instrumental Methods of Measurement and Analysis (2)
- CHEM 4564 Advanced Organic and Inorganic Laboratory (3)

- CHEM 4571 Organometallic Chemistry (3)
- Chemistry Elective (3)<sup>3</sup>
- General Education course Social Sciences (3)<sup>1</sup>

### 120 Total Sem. Hrs.

<sup>1</sup> - One General Education Social Science course must be at least 2000-level.

<sup>2</sup> - Two semester hours of CHEM 3900 in an approved chemistry project.

<sup>3</sup> - CHEMISTRY ELECTIVES: CHEM 3900 (additional hours), CHEM 4010, CHEM 4011, CHEM 4150, CHEM 4160, CHEM 4556, CHEM 4557, CHEM 4558, CHEM 4559, CHEM 4561, CHEM 4562, CHEM 4563, CHEM 4571, CHEM 4581, CHEM 4594, CHEM 4597.

# **Chemical Physics**

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001 and CHEM 1201/CHEM 1421; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 2: "C" or better in MATH 1550/MATH 1551; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 3: "C" or better in CHEM 1212/CHEM 1431 and MATH 1552; Admission to the College; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 4: "C" or better in CHEM 2261/CHEM 2461 and PHYS 2110; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 5: "C" or better in CHEM 2262/CHEM 2462 and PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

Students completing this concentration will receive American Chemical Society certification.

### Semester 1

CRITICAL: "C" or better in ENGL 1001 and CHEM 1201/CHEM 1421; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1201 Biology for Science Majors I (3)
- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- CHEM 1201 General Chemistry I (3) or
- CHEM 1421 HONORS: General Chemistry (3)
- General Education course Arts (3)

Total Semester Hours: 17

### Semester 2

CRITICAL: "C" or better in MATH 1550/MATH 1551; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1202 Biology for Science Majors II (3)
- MATH 1552 Analytic Geometry and Calculus II (4)
- CHEM 1202 General Chemistry (3) or
- CHEM 1422 HONORS: General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2) or
- CHEM 1431 HONORS: General Chemistry Laboratory (2)
- Approved Elective (3)

### Semester 3

**CRITICAL:** "C" or better in CHEM 1212/CHEM 1431 and MATH 1552; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

- CHEM 2001 Analytical Chemistry (3)
- CHEM 2002 Analytical Chemistry Laboratory (1)
- MATH 2057 Multidimensional Calculus (3)
- PHYS 2110 Particle Mechanics (3)
- PHYS 2108 Introductory Physics Laboratory (1)
- CHEM 2261 Organic Chemistry (3) or
- CHEM 2461 HONORS: Organic Chemistry I (3)
- Approved Elective (3)

Total Semester Hours: 17

### Semester 4

CRITICAL: "C" or better in CHEM 2261/CHEM 2461 and PHYS 2110; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 2000 English Composition (3)
- PHYS 2113 Fields: Gravity, Electricity, and Magnetism (3)
- PHYS 2109 General Physics Laboratory (1)
- CHEM 2262 Organic Chemistry (3) or
- CHEM 2462 HONORS: Organic Chemistry II (3)
- CHEM 2364 Organic Chemistry Laboratory (2) or
- CHEM 2463 HONORS: Organic Chemistry Laboratory (2)
- MATH 2065 Elementary Differential Equations (3) or
- MATH 2085 Linear Algebra (3) or
- MATH 2090 Elementary Differential Equations and Linear Algebra (4)

### Semester 5

CRITICAL: "C" or better in CHEM 2262/CHEM 2462 and PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

- CHEM 3491 Physical Chemistry I (3)
- Computer Science Programming Course (3)
- First Course in Foreign Language Sequence (4)
- General Education course Humanities (English/Honors 2000-level) (3)
- PHYS 2112 Fluids, Thermodynamics, Waves, and Modern Physics (3)

### Total Semester Hours: 16

### Semester 6

- CHEM 3492 Physical Chemistry II (3)
- CHEM 3493 Physical Chemistry Laboratory (3)
- General Education course Humanities (English/Honors 2000-level) or Second Course in Foreign Language Sequence (3-4)
- Physics Elective (3)<sup>4</sup>

### Total Semester Hours: 12-13

### Semester 7

- CHEM 3900 Research in Chemistry (1-3)<sup>2</sup>
- CHEM 4552 Instrumental Methods of Measurement and Analysis (2)
- CHEM 4570 Inorganic Chemistry (3)
- Physics Elective (3)<sup>4</sup>
- General Education course Social Sciences (3)<sup>1</sup>

### Total Semester Hours: 14

### Semester 8

- CHEM 4553 Laboratory in Instrumental Methods of Measurement and Analysis (2)
- BIOL 2083 The Elements of Biochemistry (3)
- Chemistry Elective (3)<sup>3</sup>
- Approved Electives (3-1)
- General Education course Social Sciences (3)<sup>1</sup>

Total Semester Hours: 14-12

120 Total Sem. Hrs.

<sup>1</sup> - One General Education Social Science course must be at least 2000-level.

- <sup>2</sup> Three semester hours of CHEM 3900 in an approved physical chemistry project.
- <sup>3</sup> Chemistry Electives: CHEM 4581, CHEM 4594, CHEM 4596, CHEM 4597.

<sup>4</sup> - Physics Electives: PHYS 2221, PHYS 2231, PHYS 2411, PHYS 4123, PHYS 4125, PHYS 4141, PHYS 4142, PHYS 4261.

# Chemistry & Second Discipline

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001 and CHEM 1201/CHEM 1421; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 2: "C" or better in MATH 1550/MATH 1551; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 3: "C" or better in CHEM 1212/CHEM 1431 and MATH 1552; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 4: "C" or better in CHEM 2261/CHEM 2461 and PHYS 2110; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 5: "C" or better in CHEM 2262/CHEM 2462 and PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

### Semester 1

CRITICAL: "C" or better in ENGL 1001 and CHEM 1201/CHEM 1421; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1201 Biology for Science Majors I (3)
- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- CHEM 1201 General Chemistry I (3) or
- CHEM 1421 HONORS: General Chemistry (3)
- General Education course Arts (3)

Total Semester Hours: 17

### Semester 2

CRITICAL: "C" or better in MATH 1550/MATH 1551; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1202 Biology for Science Majors II (3)
- MATH 1552 Analytic Geometry and Calculus II (4)
- CHEM 1202 General Chemistry (3) or
- CHEM 1422 HONORS: General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2) or
- CHEM 1431 HONORS: General Chemistry Laboratory (2)
- Approved Elective (3)

### Semester 3

**CRITICAL:** "C" or better in CHEM 1212/CHEM 1431 and MATH 1552; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

- CHEM 2001 Analytical Chemistry (3)
- CHEM 2002 Analytical Chemistry Laboratory (1)
- MATH 2057 Multidimensional Calculus (3)
- PHYS 2110 Particle Mechanics (3)
- PHYS 2108 Introductory Physics Laboratory (1)
- CHEM 2261 Organic Chemistry (3) or
- CHEM 2461 HONORS: Organic Chemistry I (3)
- Approved Elective (3)

### Total Semester Hours: 17

### Semester 4

CRITICAL: "C" or better in CHEM 2261/CHEM 2461 and PHYS 2110; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 2000 English Composition (3)
- PHYS 2113 Fields: Gravity, Electricity, and Magnetism (3)
- PHYS 2109 General Physics Laboratory (1)
- CHEM 2262 Organic Chemistry (3) or
- CHEM 2462 HONORS: Organic Chemistry II (3)
- CHEM 2364 Organic Chemistry Laboratory (2) or
- CHEM 2463 HONORS: Organic Chemistry Laboratory (2)
- Second Discipline Course (3)<sup>2</sup>

### Total Semester Hours: 15

### Semester 5

CRITICAL: "C" or better in CHEM 2262/CHEM 2462 and PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

- CHEM 3491 Physical Chemistry I (3)
- Second Discipline Course (3)<sup>2</sup>
- First Course in Foreign Language Sequence (4)
- General Education course Humanities (English/honors 2000-level) (3)
- PHYS 2112 Fluids, Thermodynamics, Waves, and Modern Physics (3)

# Semester 6

- CHEM 3492 Physical Chemistry II (3)
- CHEM 3493 Physical Chemistry Laboratory (3)
- General Education course Humanities (English/honors 2000-level) or Second Course in Foreign Language Sequence (3-4)
- Approved Elective (4-3)

# Total Semester Hours: 13

# Semester 7

- CHEM 3900 Research in Chemistry (1-3) <sup>3</sup>
- CHEM 4552 Instrumental Methods of Measurement and Analysis (2)
- CHEM 4570 Inorganic Chemistry (3)
- Second Discipline Course (3)<sup>2</sup>
- General Education course Social Sciences (3)<sup>1</sup>

# Total Semester Hours: 13

# Semester 8

- CHEM 4553 Laboratory in Instrumental Methods of Measurement and Analysis (2)
- Second Discipline Courses (6)<sup>2</sup>
- Approved Electives (3)
- General Education course Social Sciences (3)<sup>1</sup>

#### **Total Semester Hours: 14**

# 120 Total Sem. Hrs.

<sup>1</sup> - One General Education Social Science course must be at least 2000-level.

 $^2$  - Second discipline courses: Courses should form a coherent sequence in one department with at least three courses numbered 3000 or above. If courses are from more than one department, student must obtain a minor in that discipline. Selection of the concentration courses should be completed and approved by the department and dean's office by the end of the sophomore year.

<sup>3</sup> - Two semester hours of CHEM 3900 in an approved chemistry project.

# **Environmental Chemistry**

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001 and CHEM 1201/CHEM 1421; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 2: "C" or better in MATH 1550/MATH 1551; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 3: "C" or better in CHEM 1212/CHEM 1431 and MATH 1552; Admission to the College; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 4: "C" or better in CHEM 2261/CHEM 2461 and PHYS 2110; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 5: "C" or better in CHEM 2262/CHEM 2462 and PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

Students completing this concentration will receive American Chemical Society certification.

# Semester 1

CRITICAL: "C" or better in ENGL 1001 and CHEM 1201/CHEM 1421; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1201 Biology for Science Majors I (3)
- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- CHEM 1201 General Chemistry I (3) or
- CHEM 1421 HONORS: General Chemistry (3)
- General Education course Arts (3)

#### Total Semester Hours: 17

### Semester 2

CRITICAL: "C" or better in MATH 1550/MATH 1551; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1202 Biology for Science Majors II (3)
- MATH 1552 Analytic Geometry and Calculus II (4)
- CHEM 1202 General Chemistry (3) or
- CHEM 1422 HONORS: General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2) or
- CHEM 1431 HONORS: General Chemistry Laboratory (2)
- Approved Elective (3)

Total Semester Hours: 15

#### Semester 3

**CRITICAL:** "C" or better in CHEM 1212/CHEM 1431 and MATH 1552; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

- CHEM 2001 Analytical Chemistry (3)
- CHEM 2002 Analytical Chemistry Laboratory (1)
- MATH 2057 Multidimensional Calculus (3)

- PHYS 2110 Particle Mechanics (3)
- PHYS 2108 Introductory Physics Laboratory (1)
- CHEM 2261 Organic Chemistry (3) or
- CHEM 2461 HONORS: Organic Chemistry I (3)
- Approved Elective (3)

#### Semester 4

CRITICAL: "C" or better in CHEM 2261/CHEM 2461 and PHYS 2110; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 2000 English Composition (3)
- PHYS 2113 Fields: Gravity, Electricity, and Magnetism (3)
- PHYS 2109 General Physics Laboratory (1)
- CHEM 2262 Organic Chemistry (3) or
- CHEM 2462 HONORS: Organic Chemistry II (3)
- CHEM 2364 Organic Chemistry Laboratory (2) or
- CHEM 2463 HONORS: Organic Chemistry Laboratory (2)
- Computer Science Programming Course (3)

**Total Semester Hours: 15** 

#### Semester 5

CRITICAL: "C" or better in CHEM 2262/CHEM 2462 and PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 2083 The Elements of Biochemistry (3)
- PHYS 2112 Fluids, Thermodynamics, Waves, and Modern Physics (3)
- CHEM 3491 Physical Chemistry I (3)
- First Course in Foreign Language Sequence (4)
- General Education course Humanities (English/honors 2000-level) (3)

#### Total Semester Hours: 16

- CHEM 3492 Physical Chemistry II (3)
- CHEM 3493 Physical Chemistry Laboratory (3)
- CHEM 4150 Environmental Chemistry (3)
- General Education course Humanities (English/honors 2000-level) or Second Course in Foreign Language Sequence (3-4)

# Semester 7

- CHEM 3900 Research in Chemistry (1-3)<sup>3</sup>
- CHEM 4552 Instrumental Methods of Measurement and Analysis (2)
- CHEM 4570 Inorganic Chemistry (3)
- General Education course Social Sciences (3)<sup>1</sup>
- Environmental Elective (3)<sup>2</sup>

#### **Total Semester Hours: 13**

# Semester 8

- CHEM 4553 Laboratory in Instrumental Methods of Measurement and Analysis (2)
- Environmental Elective (3)<sup>2</sup>
- Approved Electives (7-6)
- General Education course Social Sciences (3)<sup>1</sup>

### Total Semester Hours: 15-14

# 120 Total Sem. Hrs.

<sup>1</sup> - One General Education Social Science course must be at least 2000-level.

<sup>2</sup> - Environmental Electives: EVEG 3145; ENVS 4500, ENVS 4477; GEOL 4043, GEOL 4081; OCS 4165.

<sup>3</sup> - Two semester hours in CHEM 3900 in an approved environmental chemistry project.

# **Materials**

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001 and CHEM 1201/CHEM 1421; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 2: "C" or better in MATH 1550/MATH 1551; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 3: "C" or better in CHEM 1212/CHEM 1431 and MATH 1552; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 4: "C" or better in CHEM 2261/CHEM 2461 and PHYS 2110; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 5: "C" or better in CHEM 2262/CHEM 2462 and PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

Students completing this concentration will receive American Chemical Society certification.

# Semester 1

CRITICAL: "C" or better in ENGL 1001 and CHEM 1201/CHEM 1421; 2.0 Cumulative, LSU and Semester GPA.

• BIOL 1201 Biology for Science Majors I (3)

- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- CHEM 1201 General Chemistry I (3) or
- CHEM 1421 HONORS: General Chemistry (3)
- General Education course Arts (3)

### Semester 2

CRITICAL: "C" or better in MATH 1550/MATH 1551; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1202 Biology for Science Majors II (3)
- MATH 1552 Analytic Geometry and Calculus II (4)
- CHEM 1202 General Chemistry (3) or
- CHEM 1422 HONORS: General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2) or
- CHEM 1431 HONORS: General Chemistry Laboratory (2)
- Approved Elective (3)

**Total Semester Hours: 15** 

#### Semester 3

**CRITICAL:** "C" or better in CHEM 1212/CHEM 1431 and MATH 1552; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

- CHEM 2001 Analytical Chemistry (3)
- CHEM 2002 Analytical Chemistry Laboratory (1)
- MATH 2057 Multidimensional Calculus (3)
- PHYS 2110 Particle Mechanics (3)
- PHYS 2108 Introductory Physics Laboratory (1)
- CHEM 2261 Organic Chemistry (3) or
- CHEM 2461 HONORS: Organic Chemistry I (3)
- Approved Elective (3)

# Total Semester Hours: 17

### Semester 4

CRITICAL: "C" or better in CHEM 2261/CHEM 2461 and PHYS 2110; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 2000 English Composition (3)
- PHYS 2113 Fields: Gravity, Electricity, and Magnetism (3)
- PHYS 2109 General Physics Laboratory (1)
- ME 2733 Materials of Engineering (3)
- CHEM 2262 Organic Chemistry (3) or
- CHEM 2462 HONORS: Organic Chemistry II (3)
- CHEM 2364 Organic Chemistry Laboratory (2) or
- CHEM 2463 HONORS: Organic Chemistry Laboratory (2)

#### Semester 5

CRITICAL: "C" or better in CHEM 2262/CHEM 2462 and PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

- CHEM 3491 Physical Chemistry I (3)
- First Course in Foreign Language Sequence (4)
- General Education course Humanities (English/honors 2000-level) (3)
- Computer Science Programming Course (3)
- PHYS 2112 Fluids, Thermodynamics, Waves, and Modern Physics (3)

#### **Total Semester Hours: 16**

#### Semester 6

- CHEM 3492 Physical Chemistry II (3)
- CHEM 3493 Physical Chemistry Laboratory (3)
- ME 3701 Materials of Engineering Laboratory (1)
- General Education course Humanities (English/honors 2000-level) or Second Course in Foreign Language Sequence (3-4)
- Approved Elective (3-2)

#### Total Semester Hours: 13

#### Semester 7

- CHEM 3900 Research in Chemistry (1-3)<sup>2</sup>
- CHEM 4010 Macromolecular Systems I (3)
- CHEM 4552 Instrumental Methods of Measurement and Analysis (2)
- CHEM 4570 Inorganic Chemistry (3)
- General Education course Social Sciences (3)<sup>1</sup>

#### Total Semester Hours: 13

# Semester 8

- CHEM 4553 Laboratory in Instrumental Methods of Measurement and Analysis (2)
- CHEM 4564 Advanced Organic and Inorganic Laboratory (3)
- ME 4723 Advanced Materials Analysis (3)
- BIOL 2083 The Elements of Biochemistry (3)
- General Education course Social Sciences (3)<sup>1</sup>

Total Semester Hours: 14

120 Total Sem. Hrs.

<sup>1</sup> - One General Education Social Science course must be at least 2000-level.

<sup>2</sup> - Two semester hours of CHEM 3900 in an approved materials chemistry research project.

# Polymers

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001 and CHEM 1201/CHEM 1421; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 2: "C" or better in MATH 1550/MATH 1551; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 3: "C" or better in CHEM 1212/CHEM 1431 and MATH 1552; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 4: "C" or better in CHEM 2261/CHEM 2461 and PHYS 2110; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 5: "C" or better in CHEM 2262/CHEM 2462 and PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

Students completing this concentration will receive American Chemical Society certification.

# Semester 1

CRITICAL: "C" or better in ENGL 1001 and CHEM 1201/CHEM 1421; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1201 Biology for Science Majors I (3)
- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- CHEM 1201 General Chemistry I (3) or
- CHEM 1421 HONORS: General Chemistry (3)
- General Education course Arts (3)

Total Semester Hours: 17

### Semester 2

CRITICAL: "C" or better in MATH 1550/MATH 1551; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1202 Biology for Science Majors II (3)
- MATH 1552 Analytic Geometry and Calculus II (4)
- CHEM 1202 General Chemistry (3) or
- CHEM 1422 HONORS: General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2) or
- CHEM 1431 HONORS: General Chemistry Laboratory (2)
- Approved Elective (3)

#### Semester 3

**CRITICAL:** "C" or better in CHEM 1212/CHEM 1431 and MATH 1552; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

- CHEM 2001 Analytical Chemistry (3)
- CHEM 2002 Analytical Chemistry Laboratory (1)
- MATH 2057 Multidimensional Calculus (3)
- PHYS 2110 Particle Mechanics (3)
- PHYS 2108 Introductory Physics Laboratory (1)
- CHEM 2261 Organic Chemistry (3) or
- CHEM 2461 HONORS: Organic Chemistry I (3)
- Approved Elective (3)

Total Semester Hours: 17

#### Semester 4

CRITICAL: "C" or better in CHEM 2261/CHEM 2461 and PHYS 2110; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 2000 English Composition (3)
- PHYS 2113 Fields: Gravity, Electricity, and Magnetism (3)
- PHYS 2109 General Physics Laboratory (1)
- CHEM 2262 Organic Chemistry (3) or
- CHEM 2462 HONORS: Organic Chemistry II (3)
- CHEM 2364 Organic Chemistry Laboratory (2) or
- CHEM 2463 HONORS: Organic Chemistry Laboratory (2)
- Computer Science Programming Course (3)

#### Total Semester Hours: 15

# Semester 5

CRITICAL: "C" or better in CHEM 2262/CHEM 2462 and PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 2083 The Elements of Biochemistry (3)
- PHYS 2112 Fluids, Thermodynamics, Waves, and Modern Physics (3)
- CHEM 3491 Physical Chemistry I (3)
- First Course in Foreign Language Sequence (4)
- General Education course Humanities (English/honors 2000-level) (3)

### Total Semester Hours: 16

# Semester 6

- CHEM 3492 Physical Chemistry II (3)
- CHEM 3493 Physical Chemistry Laboratory (3)
- General Education course Humanities (English/honors 2000-level) or Second Course in Foreign Language Sequence (3-4)
- Approved Elective (4-3)

# Total Semester Hours: 13

### Semester 7

- CHEM 3900 Research in Chemistry (1-3)<sup>2</sup>
- CHEM 4010 Macromolecular Systems I (3)
- CHEM 4552 Instrumental Methods of Measurement and Analysis (2)
- CHEM 4570 Inorganic Chemistry (3)
- General Education course Social Sciences (3)<sup>1</sup>

#### Total Semester Hours: 13

#### Semester 8

- CHEM 4553 Laboratory in Instrumental Methods of Measurement and Analysis (2)
- CHEM 4011 Macromolecular Systems II (3)
- CHEM 4564 Advanced Organic and Inorganic Laboratory (3)
- Approved Electives (3)
- General Education course Social Sciences (3)<sup>1</sup>

#### Total Semester Hours: 14

# 120 Total Sem. Hrs.

<sup>1</sup> - One General Education Social Science course must be at least 2000-level.

<sup>2</sup> - Two semester hours of CHEM 3900 in an approved materials chemistry research project.

# **Pre-Professional Chemistry**

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001 and CHEM 1201/CHEM 1421; 2.0 Cumulative, LSU and Semester GPA.
SEMESTER 2: "C" or better in MATH 1550/MATH 1551; 2.0 Cumulative, LSU and Semester GPA.
SEMESTER 3: "C" or better in CHEM 1212/CHEM 1431 and MATH 1552; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.
SEMESTER 4: "C" or better in CHEM 2261/CHEM 2461 and PHYS 2110; 2.0 Cumulative, LSU and Semester GPA.
SEMESTER 5: "C" or better in CHEM 2262/CHEM 2462 and PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

# Semester 1

CRITICAL: "C" or better in ENGL 1001 and CHEM 1201/CHEM 1421; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)
- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- CHEM 1201 General Chemistry I (3) or
- CHEM 1421 HONORS: General Chemistry (3)

Total Semester Hours: 15

#### Semester 2

CRITICAL: "C" or better in MATH 1550/MATH 1551; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1)
- MATH 1552 Analytic Geometry and Calculus II (4)
- CHEM 1202 General Chemistry (3) or
- CHEM 1422 HONORS: General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2) or
- CHEM 1431 HONORS: General Chemistry Laboratory (2)
- General Education course Arts (3)

#### **Total Semester Hours: 16**

#### Semester 3

**CRITICAL:** "C" or better in CHEM 1212/CHEM 1431 and MATH 1552; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

- CHEM 2001 Analytical Chemistry (3)
- CHEM 2002 Analytical Chemistry Laboratory (1)
- MATH 2057 Multidimensional Calculus (3)
- PHYS 2110 Particle Mechanics (3)
- PHYS 2108 Introductory Physics Laboratory (1)
- CHEM 2261 Organic Chemistry (3) or
- CHEM 2461 HONORS: Organic Chemistry I (3)
- Approved Elective (3)

#### Semester 4

CRITICAL: "C" or better in CHEM 2261/CHEM 2461 and PHYS 2110; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 2000 English Composition (3)
- PHYS 2113 Fields: Gravity, Electricity, and Magnetism (3)
- PHYS 2109 General Physics Laboratory (1)
- CHEM 2262 Organic Chemistry (3) or
- CHEM 2462 HONORS: Organic Chemistry II (3)
- CHEM 2364 Organic Chemistry Laboratory (2) or
- CHEM 2463 HONORS: Organic Chemistry Laboratory (2)
- Approved Elective (3)

**Total Semester Hours: 15** 

# Semester 5

CRITICAL: "C" or better in CHEM 2262/CHEM 2462 and PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

- CHEM 3491 Physical Chemistry I (3)
- Pre-Professional Electives (4)<sup>1</sup>
- First Course in Foreign Language Sequence (4)
- General Education course Humanities (English/honors 2000-level) (3)
- PHYS 2112 Fluids, Thermodynamics, Waves, and Modern Physics (3)

Total Semester Hours: 17

- CHEM 3492 Physical Chemistry II (3)
- CHEM 3493 Physical Chemistry Laboratory (3)

- General Education course Humanities (English/honors 2000-level) or Second Course in Foreign Language Sequence (3-4)
- Pre-Professional Electives (4)<sup>1</sup>

#### Semester 7

- BIOL 4093 General Biochemistry I (3)
- CHEM 4552 Instrumental Methods of Measurement and Analysis (2)
- CHEM 4570 Inorganic Chemistry (3)
- General Education course Social Sciences (3)<sup>2</sup>
- Approved Elective (3)

#### **Total Semester Hours: 14**

#### Semester 8

- BIOL 4094 General Biochemistry II (3)
- BIOL 4385 Biochemistry Laboratory (3)
- CHEM 4553 Laboratory in Instrumental Methods of Measurement and Analysis (2)
- Approved Electives (2-1)
- General Education course Social Sciences (3)<sup>2</sup>

Total Semester Hours: 13-12

#### 120 Total Sem. Hrs.

<sup>1</sup> - Preprofessional Electives:BIOL 2051, BIOL 2153, BIOL 3156, BIOL 3152 or BIOL 4160; two semester hours of CHEM 3900 or BIOL 3999 in an approved project.

<sup>2</sup> - One General Education Social Science course must be at least 2000-level.

\*\*The biological chemistry, pre-professional, and secondary education concentrations also require BIOL 1208 and BIOL 1209 laboratories.

# Secondary Education - Chemistry

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001 and CHEM 1201/CHEM 1421; 2.0 Semester GPA; 2.0 Cumulative and LSU GPA. SEMESTER 2: "C" or better in MATH 1550/MATH 1551; 2.0 Semester GPA; 2.5 Cumulative and LSU GPA. SEMESTER 3: "C" or better in CHEM 1212/CHEM 1431 and MATH 1552; Admission to the College; 2.0 Semester GPA; 2.5 Cumulative and LSU GPA.

SEMESTER 4: "C" or better in CHEM 2261/CHEM 2461 and PHYS 2110; 2.0 Semester GPA; 2.5 Cumulative and LSU GPA. SEMESTER 5: "C" or better in CHEM 2262/CHEM 2462 and PHYS 2113; 2.0 Semester GPA; 2.5 Cumulative and LSU GPA.

This concentration is part of the Geaux Teach–Math and Sciences Program. Students will obtain a degree in chemistry and, upon completing this concentration and meeting any additional requirements of the Louisiana Department of Education, will be eligible for certification in the state of Louisiana as teachers in grades 6-12.

# Semester 1

**CRITICAL:** "C" or better in ENGL 1001 and CHEM 1201/CHEM 1421; 2.0 Semester GPA; 2.0 Cumulative and LSU GPA.

- BIOL 1201 Biology for Science Majors I (3)
- BIOL 1208 Biology Laboratory for Science Majors I (1)
- ENGL 1001 English Composition (3)
- BASC 2010 Inquiry Approaches to Math and Science Teaching (1)
- MATH 1550 Analytic Geometry and Calculus I (5)
- CHEM 1201 General Chemistry I (3) or
- CHEM 1421 HONORS: General Chemistry (3)

#### **Total Semester Hours: 16**

#### Semester 2

CRITICAL: "C" or better in MATH 1550/MATH 1551; 2.0 Semester GPA; 2.5 Cumulative and LSU GPA.

- BIOL 1202 Biology for Science Majors II (3)
- BIOL 1209 Biology Laboratory for Science Majors II (1)
- MATH 1552 Analytic Geometry and Calculus II (4)
- BASC 2011 Inquiry-Based Math and Science Lesson Design (1)
- CHEM 1202 General Chemistry (3) or
- CHEM 1422 HONORS: General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2) or
- CHEM 1431 HONORS: General Chemistry Laboratory (2)
- General Education course Arts (3)

#### Total Semester Hours: 17

#### Semester 3

**CRITICAL:** "C" or better in CHEM 1212/CHEM 1431 and MATH 1552; Admission to the College; 2.0 Semester GPA; 2.5 Cumulative and LSU GPA.

- CHEM 2001 Analytical Chemistry (3)
- CHEM 2002 Analytical Chemistry Laboratory (1)
- MATH 2057 Multidimensional Calculus (3)
- PHYS 2110 Particle Mechanics (3)

- PHYS 2108 Introductory Physics Laboratory (1)
- EDCI 2500 Knowing and Learning in Mathematics and Science (3)
- CHEM 2261 Organic Chemistry (3) or
- CHEM 2461 HONORS: Organic Chemistry I (3)

### Semester 4

**CRITICAL:** "C" or better in CHEM 2261/CHEM 2461 and PHYS 2110; 2.0 Semester GPA; 2.5 Cumulative and LSU GPA.

- ENGL 2000 English Composition (3)
- PHYS 2113 Fields: Gravity, Electricity, and Magnetism (3)
- PHYS 2109 General Physics Laboratory (1)
- EDCI 3550 Classroom Interactions (3)
- CHEM 2262 Organic Chemistry (3) or
- CHEM 2462 HONORS: Organic Chemistry II (3)
- CHEM 2364 Organic Chemistry Laboratory (2) or
- CHEM 2463 HONORS: Organic Chemistry Laboratory (2)

**Total Semester Hours: 15** 

#### Semester 5

**CRITICAL:** "C" or better in CHEM 2262/CHEM 2462 and PHYS 2113; 2.0 Semester GPA; 2.5 Cumulative and LSU GPA.

- BIOL 2083 The Elements of Biochemistry (3)
- CHEM 3491 Physical Chemistry I (3)
- PHYS 2112 Fluids, Thermodynamics, Waves, and Modern Physics (3)
- First course in foreign language sequence (4)
- General Education course Humanities (ENGL/HNRS 2000-level) (3)

#### **Total Semester Hours: 16**

- CHEM 4005 Science Research Methods (3)
- PHIL 2786 History & Philosophy of Science, Technology, and Mathematics (3)
- CHEM 3492 Physical Chemistry II (3)
- CHEM 3493 Physical Chemistry Laboratory (3)
- General Education course Humanities (English/honors 2000-level) or Second Course in Foreign Language Sequence (3-4)

# Semester 7

- CHEM 4003 Science Teaching in Secondary School III: Instructional Strategies in Science (1)
- EDCI 4500 Instructional Models for Mathematics and Science (3)
- CHEM 4570 Inorganic Chemistry (3)
- General Education course Social Sciences (3)
- Chemistry Elective (3)<sup>1</sup>

#### **Total Semester Hours: 13**

### Semester 8

- EDCI 3136 Reading in the Content Areas (3)
- EDCI 4006 Student Teaching in Grades 6-12 Mathematics and Sciences (9)

#### Total Semester Hours: 12

### 121-122 Total Sem. Hrs.

<sup>1</sup> - Chemistry Electives: CHEM 4010, CHEM 4011, CHEM 4150, CHEM 4160, CHEM 4552, CHEM 4553, CHEM 4556, CHEM 4557, CHEM 4558, CHEM 4559, CHEM 4561, CHEM 4562, CHEM 4563 CHEM 4564, CHEM 4571, CHEM 4581, CHEM 4594, CHEM 4597.

In addition, the student must take EDCI 2500 as one of the General Education social science courses. Students should plan their course work so that the last semester of the senior year can accommodate the 12 hours that are required to be taken concurrently (EDCI 4006 and EDCI 3136). BIOL 1208 and BIOL 1209 labs should be included in the freshman year.

# **Department of Geology & Geophysics**

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#### For information regarding the GRADUATE PROGRAM, click here.

The geology curriculum prepares undergraduates for graduate study in geology and geophysics and related fields and for a wide range of professional careers, including teaching, research, resource exploration and development, and environmental management and remediation. The curriculum has three areas of concentration: geology, environmental geology, and geophysics. All three areas are designed to provide students with a sound foundation in geology and to prepare them for entry into a graduate program or directly into a professional career.

Geology students in all areas of concentration follow the same basic curriculum during the first four semesters of study. Emphasis for all students is on fundamental geologic processes operating on and within the earth through time. Students during this time receive a firm foundation in mineralogy, the history of the biosphere, petrology, structural geology and sedimentology, as well as basic courses in biology, chemistry, physics, and mathematics. The geophysics concentration has additional emphasis on mathematics and physics starting in the fifth semester. Laboratory and field studies are integrated into the curriculum at all levels and include a six-week field geology course at the department's permanent field camp in the Colorado Front Range, taken ideally between the sixth and seventh semesters.

The curriculum is designed to leave much of the final two to three semesters of study relatively unstructured so that students, with the guidance and approval of the department, can develop a program of advanced course work most appropriate to their area of concentration and career objectives. Students in any concentration area take, in addition to the first five semesters of courses, 12 hours of geology 4000-level electives.

Undergraduate thesis research is encouraged. Geology students may earn a maximum of nine hours of GEOL 3909, which can be followed by GEOL 3999 for the semester that the student defends their undergraduate thesis to a committee. Ideally, the first GEOL 3909 course would be taken in the junior year and continue through the senior year. One 4000-level geology course may be substituted for a minimum of three hours of GEOL 3909 and three hours of GEOL 3999, or the HNRS equivalent for undergraduate thesis research (e.g. HNRS 4000).

For exceptional undergraduate geology majors (overall GPA>3.5), the department offers an accelerated BS - Masters Degree Program. This program bridges the undergraduate program and MS program into a five-year program of study that includes undergraduate research, including a senior thesis, and completing graduate course work while an undergraduate student.

Graduate and undergraduate majors in geology must pay a \$35 field service fee each semester. This fee helps offset courserelated costs, such as transportation costs associated with course field trips and course materials. Part-time students enrolled in seminar courses only and students registered for thesis or dissertation only are exempt from the fee. Additional information concerning fees for field geology courses is available from the Geology field camp director, Department of Geology & Geophysics.

# **Geology Minor**

An undergraduate *minor in geology* is available (20 hours). Required courses are: GEOL 1201, GEOL 1202 and 12 additional hours, of which at least nine of the additional hours must be taken at the 3000 or 4000 level (excluding GEOL 3909 and GEOL 3999).

# Geology, B.S.Geol.

Areas of Concentration

**Environmental Geology** 

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001 and GEOL 1201; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 2: "C" or better in CHEM 1201 and GEOL 1202; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 3: "C" or better in BIOL 1201, MATH 1550, and CSC 1240; Admission to the College; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 4: "C" or better in GEOL 2081 and PHYS 1201; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 5: "C" or better in GEOL 3032/GEOL 3041; 2.0 Cumulative, LSU and Semester GPA.

Recommended as preparation for a career in environmental geology and related fields or entrance to graduate study.

### Semester 1

CRITICAL: "C" or better in ENGL 1001 and GEOL 1201; 2.0 Cumulative, LSU and Semester GPA.

- CHEM 1201 General Chemistry I (3)
- ENGL 1001 English Composition (3)
- GEOL 1201 Principles of Geology I (4)
- MATH 1550 Analytic Geometry and Calculus I (5)

Total Semester Hours: 15

#### Semester 2

CRITICAL: "C" or better in CHEM 1201 and GEOL 1202; 2.0 Cumulative, LSU and Semester GPA.

- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- GEOL 1202 Principles of Geology II (4)
- MATH 1552 Analytic Geometry and Calculus II (4)
- BIOL 1201 Biology for Science Majors I (3)

#### **Total Semester Hours: 16**

#### Semester 3

**CRITICAL:** "C" or better in BIOL 1201, MATH 1550, and CSC 1240; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1202 Biology for Science Majors II (3)
- CSC 1240 Statistics and Graphics with MATLAB (3)
- PHYS 1201 General Physics for Physics Majors (4)
- PHYS 1208 General Physics Laboratory for Physics Majors (1) or
- PHYS 2108 Introductory Physics Laboratory (1)
- First Course in Foreign Language Sequence (4)

#### Total Semester Hours: 15

#### Semester 4

**CRITICAL:** "C" or better in GEOL 2081 and PHYS 1201; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 2000 English Composition (3)
- GEOL 2081 Mineralogy (4)
- PHYS 1202 General Physics for Physics Majors (4)
- PHYS 1209 General Physics Laboratory for Physics Majors (1) or
- PHYS 2109 General Physics Laboratory (1)
- General Education course Social Sciences (3)

### Semester 5

CRITICAL: "C" or better in GEOL 3032/GEOL 3041; 2.0 Cumulative, LSU and Semester GPA.

- GEOL 3032 Introduction to Sedimentology and Depositional Environments (4)
- GEOL 3041 Igneous and Metamorphic Petrology (4)
- General Education course Humanities (ENGL/HNRS 2000-level) (3)
- PHYS 2203 Introductory Modern Physics (3)

### Total Semester Hours: 14

### Semester 6

- GEOL 3061 Evolution of the Biosphere (4)
- GEOL 3071 Structural Geology (4)
- General Education course Social Sciences (2000-level) (3)
- General Education course Humanities (3)

### **Total Semester Hours: 14**

# Semester 7

#### SUMMER SESSION: Geology Field Camp.

• GEOL 3666 Field Geology (6)

#### Total Semester Hours: 6

#### Semester 8

- Area of Concentration Courses  $(9)^1$
- Free Electives (6)

# Total Semester Hours: 15

- Area of Concentration Course  $(3)^1$
- Free Electives (4)
- General Education course Arts (3)

### 120 Total Sem. Hrs.

<sup>1</sup> - Area of Concentration Course: Twelve hours of geology electives that must be chosen from GEOL 4020, GEOL 4023, GEOL 4043, GEOL 4062, GEOL 4081, GEOL 4084, GEOL 4085, GEOL 4150, GEOL 4164 and GEOL 4182

# Geology

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001 and GEOL 1201; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 2: "C" or better in CHEM 1201 and GEOL 1202; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 3: "C" or better in BIOL 1201, MATH 1550, and CSC 1240; Admission to the College; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 4: "C" or better in GEOL 2081 and PHYS 1201/PHYS 2001; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 5: "C" or better in GEOL 3032/GEOL 3041; 2.0 Cumulative, LSU and Semester GPA.

Recommended as preparation for a career in geology and related fields, or entrance to a graduate study.

# Semester 1

CRITICAL: "C" or better in ENGL 1001 and GEOL 1201; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 1001 English Composition (3)
- CHEM 1201 General Chemistry I (3)
- GEOL 1201 Principles of Geology I (4)
- MATH 1550 Analytic Geometry and Calculus I (5)

#### **Total Semester Hours: 15**

#### Semester 2

CRITICAL: "C" or better in CHEM 1201 and GEOL 1202; 2.0 Cumulative, LSU and Semester GPA.

- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- GEOL 1202 Principles of Geology II (4)
- MATH 1552 Analytic Geometry and Calculus II (4)
- BIOL 1201 Biology for Science Majors I (3)

#### Total Semester Hours: 16

### Semester 3

**CRITICAL:** "C" or better in BIOL 1201, MATH 1550, and CSC 1240; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

- BIOL 1202 Biology for Science Majors II (3)
- PHYS 1201 General Physics for Physics Majors (4) or
- PHYS 2001 General Physics I (3)
- PHYS 1208 General Physics Laboratory for Physics Majors (1) or
- PHYS 2108 Introductory Physics Laboratory (1)
- CSC 1240 Statistics and Graphics with MATLAB (3)
- First Course in Foreign Language Sequence (4)

#### Total Semester Hours: 15-14

#### Semester 4

**CRITICAL:** "C" or better in GEOL 2061/GEOL 2081 and PHYS 1201/PHYS 2001; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 2000 English Composition (3)
- GEOL 2081 Mineralogy (4)
- PHYS 1202 General Physics for Physics Majors (4) or
- PHYS 2002 General Physics II (3)
- PHYS 1209 General Physics Laboratory for Physics Majors (1) or
- PHYS 2109 General Physics Laboratory (1)
- General Education course Arts (3)

Total Semester Hours: 15-14

#### Semester 5

CRITICAL: "C" or better in GEOL 3032/GEOL 3041; 2.0 Cumulative, LSU and Semester GPA.

- GEOL 3032 Introduction to Sedimentology and Depositional Environments (4)
- GEOL 3041 Igneous and Metamorphic Petrology (4)
- General Education course Humanities (ENGL/HNRS 2000-level) (3)
- General Education course Social Sciences (3)

Total Semester Hours: 14

- GEOL 3061 Evolution of the Biosphere (4)
- GEOL 3071 Structural Geology (4)
- General Education course Social Sciences (2000-level) (3)
- General Education course Humanities (3)
- Free Electives (3)

#### Semester 7

#### SUMMER SESSION: Geology Field Camp.

• GEOL 3666 Field Geology (6)

#### Total Semester Hours: 6

### Semester 8

- Free Electives (6)
- GEOL 4000-level Courses (6)<sup>1</sup>

### Total Semester Hours: 12

#### Semester 9

- GEOL 4000-level Courses (6)<sup>1</sup>
- Free Electives (4-6)

Total Semester Hours: 10-12

#### 120 Total Sem. Hrs.

<sup>1</sup> - Area of Concentration Course: Twelve hours of 4000-level geology electives.

# Geophysics

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001 and GEOL 1201; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 2: "C" or better in CHEM 1201 and GEOL 1202; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 3: "C" or better in BIOL 1201 and MATH 1550 and CSC 1240; Admission to the College; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 4: "C" or better in GEOL 2081 and PHYS 1201; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 5: "C" or better in GEOL 3032/GEOL 3041; 2.0 Cumulative, LSU and Semester GPA.

Recommended as preparation for a career in geophysics and related fields or entrance to graduate study.

# Semester 1

CRITICAL: "C" or better in ENGL 1001 and GEOL 1201; 2.0 Cumulative, LSU and Semester GPA.

- CHEM 1201 General Chemistry I (3)
- ENGL 1001 English Composition (3)
- GEOL 1201 Principles of Geology I (4)
- MATH 1550 Analytic Geometry and Calculus I (5)

#### **Total Semester Hours: 15**

# Semester 2

CRITICAL: "C" or better in CHEM 1201 and GEOL 1202; 2.0 Cumulative, LSU and Semester GPA.

- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- GEOL 1202 Principles of Geology II (4)
- MATH 1552 Analytic Geometry and Calculus II (4)
- BIOL 1201 Biology for Science Majors I (3)

#### **Total Semester Hours: 16**

#### Semester 3

**CRITICAL:** "C" or better in BIOL 1201, MATH 1550, and CSC 1240; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

- CSC 1240 Statistics and Graphics with MATLAB (3)
- MATH 2065 Elementary Differential Equations (3) or
- MATH 2090 Elementary Differential Equations and Linear Algebra (4)
- PHYS 1201 General Physics for Physics Majors (4)
- PHYS 1208 General Physics Laboratory for Physics Majors (1) or
- PHYS 2108 Introductory Physics Laboratory (1)
- First Course in Foreign Language Sequence (4)

#### Total Semester Hours: 16-15

#### Semester 4

CRITICAL: "C" or better in GEOL 2081 and PHYS 1201; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 2000 English Composition (3)
- PHYS 1202 General Physics for Physics Majors (4)

- PHYS 1209 General Physics Laboratory for Physics Majors (1) or
- PHYS 2109 General Physics Laboratory (1)
- GEOL 2081 Mineralogy (4)
- General Education course Social Sciences (3)

# Semester 5

CRITICAL: "C" or better in GEOL 3032/ GEOL 3041; 2.0 Cumulative, LSU and Semester GPA.

- PHYS 2203 Introductory Modern Physics (3)
- GEOL 3041 Igneous and Metamorphic Petrology (4)
- GEOL 3032 Introduction to Sedimentology and Depositional Environments (4)
- General Education course Social Sciences (2000-level) (3)
- General Education course Humanities (ENGL/HNRS 2000-level) (3)

### Total Semester Hours: 17

# Semester 6

- GEOL 3061 Evolution of the Biosphere (4)
- GEOL 3071 Structural Geology (4)
- PETE 3036 Well Logging (3)
- General Education course Humanities (3)
- Free Elective (0-1)

### Total Semester Hours: 15-14

# Semester 7

#### SUMMER-Six week field study course.

• GEOL 3666 Field Geology (6)

#### Total Semester Hours: 6

#### Semester 8

- GEOL 4000-level Course (3)
- Area of Concentration Course (6)<sup>1</sup>
- General Education course Arts (3)

#### Total Semester Hours: 12

# Semester 9

- Area of Concentration Course  $(3)^1$
- Free Electives (6)

**Total Semester Hours: 9** 

120 Total Sem. Hrs.

<sup>1</sup> - AREA OF CONCENTRATION COURSES: Nine hours of geology electives that must be chosen from: GEOL 4019, GEOL 4045, GEOL 4060, GEOL 4066, GEOL 4068, GEOL 4107, GEOL 4150, GEOL 4182.

# **Department of Mathematics**

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TELEPHONE	225-578-1665
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WEBSITE	www.math.lsu.edu
E-MAIL	department@math.lsu.edu

#### For information regarding the GRADUATE PROGRAM, click here.

Students majoring in mathematics may choose from several areas of concentration. Each concentration requires the following lower division mathematics courses (totaling 22 sem. hrs.): MATH 1550 (or MATH 1551), MATH 1552 (or MATH 1553), MATH 2057 (or MATH 2058), MATH 2060 (or EXST 3201), MATH 2085, and two courses from MATH 2020, MATH 2025, MATH 2030. Each concentration requires additional courses (see recommended paths) and a capstone experience. Credit for mathematics courses numbered below 1550 will not be counted toward the required credits for mathematics majors.

Those students who are planning to pursue a graduate degree in mathematics are strongly advised to include MATH 4031, MATH 4032, MATH 4035, MATH 4153, and MATH 4200 in their curriculum even if they do not select the mathematics area of concentration.

Honors courses offered in mathematics are MATH 1551, MATH 1553, and MATH 2058. The honors option is available to students in upper division mathematics courses. (See "Honors Option" in the "Honors College" section in this catalog.) A special curriculum leading to the BS degree in mathematics with departmental honors is offered. Details are available from the departmental office.

No student may receive more than nine semester hours of credit in mathematics courses numbered below 1550, with the exception of students who are pursuing the elementary education degree and following the 12 hour sequence specified in that curriculum. No student who has already received credit for a mathematics course numbered 1550 or above may be registered in a mathematics course numbered below 1550, unless given special permission by the Department of Mathematics.

# **Mathematics Minor**

The requirements for an undergraduate *minor in mathematics* are as follows: MATH 1550 (or MATH 1551), MATH 1552 (or MATH 1553), MATH 2057 (or MATH 2058), MATH 2085 (or MATH 2070 or MATH 2090), and at least nine semester hours at the 3000 or 4000 level, but excluding MATH 3903 and MATH 4005.

# Mathematics, B.S.

# Areas of Concentration

Consult "Degree Requirements of the College" in this section of the catalog for specific instructions regarding electives and the general education literature and social sciences requirements.

# **Actuarial Science**

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001; 2.0 Cumulative, LSU and Semester GPA.
SEMESTER 2: "C" or better in MATH 1550; 2.0 Cumulative, LSU and Semester GPA.
SEMESTER 3: "C" or better in MATH 1552; 2.0 Cumulative, LSU and Semester GPA; Admission to the College.
SEMESTER 4: "C" or better in MATH 2057; 2.0 Cumulative, LSU and Semester GPA.
SEMESTER 5: "C" or better in MATH 2085, MATH 2020/MATH 2025/MATH 2030; 2.0 Cumulative, LSU and Semester GPA.

# Semester 1

CRITICAL: "C" or better in ENGL 1001; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5) or
- MATH 1551 HONORS: Analytic Geometry and Calculus I (5)
- CSC 1253 Computer Science I with C++ (3)
- General Education Natural Science course sequence (3)<sup>1</sup>
- Natural Sciences Lab (0-1)<sup>1</sup>

Total Semester Hours: 14-15

# Semester 2

CRITICAL: "C" or better in MATH 1550; 2.0 Cumulative, LSU and Semester GPA.

- MATH 1552 Analytic Geometry and Calculus II (4)
- MATH 2020 Solving Discrete Problems (3)<sup>2</sup>
- CSC 1254 Computer Science II with C++ (3)
- General Education Natural Science course sequence (3)<sup>1</sup>
- Natural Sciences Lab (2-1)<sup>1</sup>

#### Total Semester Hours: 15-14

CRITICAL: "C" or better in MATH 1552; 2.0 Cumulative, LSU and Semester GPA; Admission to the College.

- MATH 2057 Multidimensional Calculus (3)
- MATH 3050 Interest Theory (5)
- EXST 2201 Introduction to Statistical Analysis (4)
- ENGL 2000 English Composition (3) or
- HNRS 2000 Critical Analysis (3) or
- HNRS 2012 The 19th Century (3) or
- HNRS 2013 The 20th Century (3) or
- HNRS 2020 Contemporary Studies (3) or
- HNRS 2021 Colloquium in the Arts (3) or
- HNRS 2041 Classical Traditions: The Mediterranean World (4) or
- HNRS 2042 Modern Traditions: Europe and the West (4)

#### Total Semester Hours: 15

#### Semester 4

CRITICAL: "C" or better in MATH 2057; 2.0 Cumulative, LSU and Semester GPA.

- MATH 2085 Linear Algebra (3)
- MATH 3355 Probability (3)
- ACCT 2001 Introductory Financial Accounting (3)
- EXST 3201 Statistical Analysis II (4)
- ECON 2030 Economic Principles (3)<sup>3</sup>

#### **Total Semester Hours: 16**

#### Semester 5

**CRITICAL:** "C" or better in MATH 2085, MATH 2020/MATH 2025/MATH 2030; 2.0 Cumulative, LSU and Semester GPA.

- MATH 4056 Mathematical Statistics (3)
- CSC 3102 Advanced Data Structures and Algorithm Analysis (3)
- FIN 3716 Principles of Finance (3)
- General Education course Arts (3)
- Math course at 2000-level or higher (3)<sup>4</sup>

#### **Total Semester Hours: 15**

- CSC 3730 Machine Learning and Data Analytics (3) or
- CSC 2730 Data Science and Analytics (3)

• Approved Electives (11)

#### **Total Semester Hours: 14**

#### Semester 7

- MATH 4040 Short-term Actuarial Mathematics I (3) or
- MATH 4041 Short-term Actuarial Mathematics II (3) or
- MATH 4045 Long-term Actuarial Mathematics I (3) or
- MATH 4046 Long-term Actuarial Mathematics II (3)
- Foreign Language Course (4)
- General Education Natural Science course (alternate science) (3)<sup>1</sup>
- General Education course Humanities (3)
- Approved Elective (3)

#### Total Semester Hours: 16

#### Semester 8

- MATH 4020 Capstone Course (3) or
- MATH 4997 Vertically Integrated Research (3) or
- EXST 4087 Special Topics in Applied Statistics (3)
- MATH 4040 Short-term Actuarial Mathematics I (3) or
- MATH 4041 Short-term Actuarial Mathematics II (3) or
- MATH 4045 Long-term Actuarial Mathematics I (3) or
- MATH 4046 Long-term Actuarial Mathematics II (3)
- General Education course Humanities (English/honors 2000-level) (3)
- General Education course Social Sciences (3)
- Approved Elective (3)

Total Semester Hours: 15

# 120 Total Sem. Hrs.

<sup>1</sup> - A mathematics major must take a two-semester sequence from one of the following two lists:

- 1. Biological Sciences: BIOL 1001, BIOL 1002 or BIOL 1201, BIOL 1202
- Physical Sciences: ASTR 1101, ASTR 1102; CHEM 1001, CHEM 1002; CHEM 1201, CHEM 1202; GEOL 1001, GEOL 1003; GEOL 1001, GEOL 2020; GEOL 1111, GEOL 1003; GEOL 1111, GEOL 2020; PHYS 1201, PHYS 1202; PHYS 2001, PHYS 2002; PHYS 2110, PHYS 2112; PHYS 2110, PHYS 2113.

The two-semester sequence must include two hours of corresponding laboratory credit. The student must also take a one-semester course chosen from whichever list above was not used for the two-semester sequence.

 $^{2}$  - A student may substitute for MATH 2020 a 3-hour-or-more math course at the 2000-level or higher that is not otherwise required, upon passing the Math Department's Mathematical Maturity Exam.

<sup>3</sup>- ECON 2030 applies as three hours toward the university general education social sciences requirement. However, since it is also a concentration course, it must be passed with a grade of "C" of better.

<sup>4</sup>- It is recommended that this course be chosen from MATH 2025 or MATH 2030. In any case, the course must carry at least 3 hours' credit and must not be otherwise required.

# **Computational Mathematics**

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001; 2.0 Cumulative, LSU and Semester GPA.
SEMESTER 2: "C" or better in MATH 1550; 2.0 Cumulative, LSU and Semester GPA.
SEMESTER 3: "C" or better in MATH 1552; 2.0 Cumulative, LSU and Semester GPA; Admission to the College.
SEMESTER 4: "C" or better in MATH 2057; 2.0 Cumulative, LSU and Semester GPA.
SEMESTER 5: "C" or better in MATH 2057; 2.0 Cumulative, LSU and Semester GPA.

# Semester 1

CRITICAL: "C" or better in ENGL 1001; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5) or
- MATH 1551 HONORS: Analytic Geometry and Calculus I (5)
- Foreign Language Course (4)
- General Education course Natural Sciences (3)<sup>1</sup>
- Natural Sciences Lab (1)<sup>1</sup>

#### Total Semester Hours: 15-16

### Semester 2

CRITICAL: "C" or better in MATH 1550; 2.0 Cumulative, LSU and Semester GPA.

- MATH 1552 Analytic Geometry and Calculus II (4)
- General Education Course Social Sciences (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- Natural Sciences Lab (1)<sup>1</sup>
- General Education course Arts (3)

#### Total Semester Hours: 15-14

### Semester 3

CRITICAL: "C" or better in MATH 1552; 2.0 Cumulative, LSU and Semester GPA; Admission to the College.

- MATH 2057 Multidimensional Calculus (3)
- MATH 2060 Technology Lab (1)
- MATH 2020 Solving Discrete Problems (3)<sup>2</sup> or
- MATH 2025 Linear Algebra and Wavelets (3)<sup>2</sup> or
- MATH 2030 Discrete Dynamical Systems (3) <sup>2</sup>
- General Education Course Social Sciences (2000-level) (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Humanities (English/honors 2000-level) (3)

### Semester 4

CRITICAL: "C" or better in MATH 2057; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 2000 English Composition (3) or
- HNRS 2000 Critical Analysis (3) or
- HNRS 2012 The 19th Century (3) or
- HNRS 2013 The 20th Century (3) or
- HNRS 2020 Contemporary Studies (3) or
- HNRS 2021 Colloquium in the Arts (3) or
- HNRS 2041 Classical Traditions: The Mediterranean World (4) or
- HNRS 2042 Modern Traditions: Europe and the West (4)
- MATH 2085 Linear Algebra (3)
- Math course at 2000-level or higher  $(3)^3$
- General Education course Humanities (3)
- Approved Elective (3)

#### Total Semester Hours: 15

# Semester 5

**CRITICAL:** "C" or better in MATH 2085, MATH 2020/MATH 2025/MATH 2030; 2.0 Cumulative, LSU and Semester GPA.

- MATH 2065 Elementary Differential Equations (3)<sup>4</sup>
- MATH 4065 Numerical Analysis (3)
- MATH 4064 Numerical Linear Algebra (3)
- Approved Electives (6)

#### Total Semester Hours: 15

- MATH 4031 Advanced Calculus I (3)
- MATH 4066 Numerical Differential Equations (3)
- Area of Concentration Course (3)<sup>5</sup>
- Approved Electives (6)

### Semester 7

- MATH 4025 Optimization Theory and Applications (3)
- MATH 4035 Advanced Calculus of Several Variables (3) or
- MATH 4032 Advanced Calculus II (3)
- Approved Electives (6)
- Area of Concentration Course (3)<sup>5</sup>

#### Total Semester Hours: 15

### Semester 8

- MATH 4020 Capstone Course (3)
- Area of Concentration Course (3)<sup>3</sup>
- Approved Electives (8)

### Total Semester Hours: 14

# 120 Total Sem. Hrs.

<sup>1</sup> - A mathematics major must take a two-semester sequence from one of the following two lists:

- 1. Biological Sciences: BIOL 1001, BIOL 1002 or BIOL 1201, BIOL 1202
- Physical Sciences: ASTR 1101, ASTR 1102; CHEM 1001, CHEM 1002; CHEM 1201, CHEM 1202; GEOL 1001, GEOL 1003; GEOL 1001, GEOL 2020; GEOL 1111, GEOL 1003; GEOL 1111, GEOL 2020; PHYS 1201, PHYS 1202; PHYS 2001, PHYS 2002; PHYS 2110, PHYS 2112; PHYS 2110, PHYS 2113.

The two-semester sequence must include two hours of corresponding laboratory credit. The student must also take a one-semester course chosen from whichever list above was not used for the two-semester sequence.

 $^2$  - A student may substitute for MATH 2020, MATH 2025, or MATH 2030 a 3-hour-or-more math course at the 2000-level or higher that is not otherwise required, upon passing the Math Department's Mathematical Maturity Exam.

<sup>3</sup>- It is recommended that this course be chosen from MATH 2020, MATH 2025, or MATH 2030. In any case, the course must carry at least 3 hours' credit and must not be otherwise required.

<sup>4</sup>- Students may choose to take MATH 2090 and waive MATH 2065 as well as the core requirement of MATH 2085. The twohour difference will be added to approved electives.

<sup>5</sup> - Select from the following: MATH 4340, MATH 4036, MATH 3355, MATH 4058, CSC 4356 (ME 4573), CSC 4357 (ME 4583), ME 4823, EE 3160, EE 4160 or upper division courses in engineering and science that have a strong computational component with the approval of the mathematics department.

# **Mathematics**

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001; 2.0 Cumulative, LSU and Semester GPA.
SEMESTER 2: "C" or better in MATH 1550; 2.0 Cumulative, LSU and Semester GPA.
SEMESTER 3: "C" or better in MATH 1552; 2.0 Cumulative, LSU and Semester GPA; Admission to the College.
SEMESTER 4: "C" or better in MATH 2057; 2.0 Cumulative, LSU and Semester GPA.
SEMESTER 5: "C" or better in MATH 2057; 2.0 Cumulative, LSU and Semester GPA.

# Semester 1

CRITICAL: "C" or better in ENGL 1001; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- Foreign Language Course (4)
- General Education course Natural Sciences course sequence (3)<sup>1</sup>
- Natural Sciences Lab (0-1)<sup>1</sup>

Total Semester Hours: 15-16

# Semester 2

CRITICAL: "C" or better in MATH 1550; 2.0 Cumulative, LSU and Semester GPA.

- MATH 1552 Analytic Geometry and Calculus II (4)
- General Education course Social Sciences (3)
- General Education course Natural Science course sequence (3)<sup>1</sup>
- Natural Sciences Lab (2-1)<sup>1</sup>
- General Education course Arts (3)

#### Total Semester Hours: 15-14

#### Semester 3

CRITICAL: "C" or better in MATH 1552; 2.0 Cumulative, LSU and Semester GPA; Admission to the College.

- MATH 2057 Multidimensional Calculus (3)
- MATH 2060 Technology Lab (1)
- MATH 2020 Solving Discrete Problems (3)<sup>2</sup> or
- MATH 2025 Linear Algebra and Wavelets (3)<sup>2</sup> or
- MATH 2030 Discrete Dynamical Systems (3) <sup>2</sup>

- Approved Elective (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Humanities (English/honors 2000-level) (3)

#### Semester 4

CRITICAL: "C" or better in MATH 2057; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 2000 English Composition (3) or
- HNRS 2000 Critical Analysis (3) or
- HNRS 2012 The 19th Century (3) or
- HNRS 2013 The 20th Century (3) or
- HNRS 2020 Contemporary Studies (3) or
- HNRS 2021 Colloquium in the Arts (3) or
- HNRS 2041 Classical Traditions: The Mediterranean World (4) or
- HNRS 2042 Modern Traditions: Europe and the West (4)
- MATH 2085 Linear Algebra (3)
- Math course at 2000-level or higher (3)<sup>3</sup>
- General Education course Humanities (3)
- Approved Elective (3)

#### **Total Semester Hours: 15**

#### Semester 5

**CRITICAL:** "C" or better in MATH 2085, MATH 2020/MATH 2025/MATH 2030; 2.0 Cumulative, LSU and Semester GPA.

- MATH 4200 Abstract Algebra I (3)
- Approved Elective (3)
- General Education course Social Sciences (2000-level) (3)
- Area of Concentration Courses (3)<sup>4</sup>
- MATH 4031 Advanced Calculus I (3)

#### **Total Semester Hours: 15**

- MATH 4201 Abstract Algebra II (3) or
- MATH 4153 Finite Dimensional Vector Spaces (3)
- MATH 4032 Advanced Calculus II (3) or
- MATH 4035 Advanced Calculus of Several Variables (3) or
- MATH 4036 Complex Variables (3)

- Approved Electives (6)
- Area of Concentration Course (3)<sup>4</sup>

# Semester 7

- MATH 4020 Capstone Course (3) or
- MATH 4997 Vertically Integrated Research (3)
- Approved Electives (9)
- Area of Concentration Course (3)<sup>4</sup>

#### **Total Semester Hours: 15**

### Semester 8

- MATH 4039 Introduction to Topology (3)
- Area of Concentration Course (3)<sup>4</sup>
- Approved Electives (8)

### Total Semester Hours: 14

# 120 Total Sem. Hrs.

<sup>1</sup> - A mathematics major must take a two-semester sequence from one of the following two lists:

- 1. Biological Sciences: BIOL 1001, BIOL 1002 or BIOL 1201, BIOL 1202
- Physical Sciences: ASTR 1101, ASTR 1102; CHEM 1001, CHEM 1002; CHEM 1201, CHEM 1202; GEOL 1001, GEOL 1003; GEOL 1001, GEOL 2020; GEOL 1111, GEOL 1003; GEOL 1111, GEOL 2020; PHYS 1201, PHYS 1202; PHYS 2001, PHYS 2002; PHYS 2110, PHYS 2112; PHYS 2110, PHYS 2113.

The two-semester sequence must include two hours of corresponding laboratory credit. The student must also take a one-semester course chosen from whichever list above was not used for the two-semester sequence.

 $^{2}$  - A student may substitute for MATH 2020, MATH 2025, or MATH 2030 a 3-hour-or-more math course at the 2000-level or higher that is not otherwise required, upon passing the Math Department's Mathematical Maturity Exam.

<sup>3</sup>- It is recommended that this course be chosen from MATH 2020, MATH 2025, or MATH 2030. In any case, the course must carry at least 3 hours credit and must not be otherwise required.

<sup>4</sup>- Select from: MATH 2065, MATH 2070, MATH 3355, MATH 4024, MATH 4025, MATH 4027, MATH 4032, MATH 4035, MATH 4036, MATH 4056, MATH 4058, MATH 4064, MATH 4153, MATH 4066, MATH 4065, MATH 4158, MATH 4171, MATH 4172, MATH 4181, MATH 4201, MATH 4325, MATH 4340, MATH 4345, MATH 4700, MATH 4997, MATH 4999.

NOTE: At most six credit hours of the 30 hours in the concentration may be from MATH 4020, MATH 4997 or MATH 4999.

# Mathematics and a Second Discipline

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001; 2.0 Cumulative, LSU and Semester GPA.
SEMESTER 2: "C" or better in MATH 1550; 2.0 Cumulative, LSU and Semester GPA.
SEMESTER 3: "C" or better in MATH 1552; 2.0 Cumulative, LSU and Semester GPA; Admission to the College.
SEMESTER 4: "C" or better in MATH 2057; 2.0 Cumulative, LSU and Semester GPA.
SEMESTER 5: "C" or better in MATH 2085, MATH 2020/MATH 2025/MATH 2030; 2.0 Cumulative, LSU and Semester GPA.

# Semester 1

CRITICAL: "C" or better in ENGL 1001; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- Foreign Language Course (4)
- General Education course Natural Sciences (3)<sup>1</sup>
- Natural Sciences Lab (0-1)<sup>1</sup>

### Total Semester Hours: 15-16

### Semester 2

CRITICAL: "C" or better in MATH 1550; 2.0 Cumulative, LSU and Semester GPA.

- MATH 1552 Analytic Geometry and Calculus II (4)
- General Education course Social Sciences (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- Natural Science Lab (2-1)<sup>1</sup>
- General Education course Arts (3)

#### Total Semester Hours: 15-14

#### Semester 3

CRITICAL: "C" or better in MATH 1552; 2.0 Cumulative, LSU and Semester GPA; Admission to the College.

- MATH 2057 Multidimensional Calculus (3)
- MATH 2060 Technology Lab (1)
- MATH 2020 Solving Discrete Problems (3) or
- MATH 2025 Linear Algebra and Wavelets (3) or
- MATH 2030 Discrete Dynamical Systems (3)
- Second Discipline Course (3)<sup>3</sup>
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Humanities (English/honors 2000-level) (3)

# Semester 4

CRITICAL: "C" or better in MATH 2057; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 2000 English Composition (3) or
- HNRS 2000 Critical Analysis (3) or
- HNRS 2012 The 19th Century (3) or
- HNRS 2013 The 20th Century (3) or
- HNRS 2020 Contemporary Studies (3) or
- HNRS 2021 Colloquium in the Arts (3) or
- HNRS 2041 Classical Traditions: The Mediterranean World (4) or
- HNRS 2042 Modern Traditions: Europe and the West (4)
- MATH 2085 Linear Algebra (3)
- Math course at 2000-level or higher (3)<sup>4</sup>
- General Education course Humanities (3)
- Second Discipline Course (3)<sup>3</sup>

### **Total Semester Hours: 15**

# Semester 5

**CRITICAL:** "C" or better in MATH 2085; MATH 2020/MATH 2025/MATH 2030; 2.0 Cumulative, LSU and Semester GPA.

- MATH 4023 Applied Algebra (3) or
- MATH 4200 Abstract Algebra I (3)
- General Education course Social Sciences (2000-level) (3)
- Area of Concentration Course (3)<sup>5</sup>
- Second Discipline Course (3)<sup>3</sup>
- Approved Elective (3)

### **Total Semester Hours: 15**

# Semester 6

- MATH 4031 Advanced Calculus I (3) or
- MATH 4036 Complex Variables (3)
- Area of Concentration Course (3)<sup>5</sup>
- Second Discipline Courses (6)<sup>3</sup>
- Approved Elective (3)

#### Total Semester Hours: 15

# Semester 7

- MATH 4020 Capstone Course (3) or
- MATH 4997 Vertically Integrated Research (3)
- Area of Concentration Course (3)<sup>5</sup>
- Second Discipline Course (3)<sup>3</sup>
- Approved Electives (6)

### **Total Semester Hours: 15**

# Semester 8

- Second Discipline Course (3)<sup>5</sup>
- Approved Electives (11)

### Total Semester Hours: 14

# 120 Total Sem. Hrs.

<sup>1</sup> - A mathematics major must take a two-semester sequence from one of the following two lists:

- 1. Biological Sciences: BIOL 1001, BIOL 1002 or BIOL 1201, BIOL 1202
- Physical Sciences: ASTR 1101, ASTR 1102; CHEM 1001, CHEM 1002; CHEM 1201, CHEM 1202; GEOL 1001, GEOL 1003; GEOL 1001, GEOL 2020; GEOL 1111, GEOL 1003; GEOL 1111, GEOL 2020; PHYS 1201, PHYS 1202; PHYS 2001, PHYS 2002; PHYS 2110, PHYS 2112; PHYS 2110, PHYS 2113.

The two-semester sequence must include two hours of corresponding laboratory credit. The student must also take a one-semester course chosen from whichever list above was not used for the two-semester sequence.

 $^{2}$  - A student may substitute for MATH 2020, MATH 2025, or MATH 2030 a 3-hour-or-more math course at the 2000-level or higher that is not otherwise required, upon passing the Math Department's Mathematical Maturity Exam.

<sup>3</sup> Second Discipline Electives: 21 credit hours from another discipline. 12 of these must be at the 3000 or 4000 level, and 6 of the 12 must be at the 4000 level. Courses should form a coherent sequence in one department. Selection of the second discipline courses should be completed and approved by the department and dean's office by the end of the sophomore year.

<sup>4</sup>- It is recommended that this course be chosen from MATH 2020, MATH 2025, or MATH 2030. In any case, the course must carry at least 3 hours credit and must not be otherwise required.

<sup>5</sup>- Select courses from: MATH 3355, MATH 4024, MATH 4025, MATH 4027, MATH 4032, MATH 4035, MATH 4036, MATH 4039, MATH 4058, MATH 4064, MATH 4065, MATH 4066, MATH 4153, MATH 4158, MATH 4171, MATH 4172, MATH 4181, MATH 4201, MATH 4325, MATH 4340, MATH 4345, MATH 4700, MATH 4997, MATH 4999.

NOTE: At most six credit hours of the 39 hours in the concentration may be from MATH 4020, MATH 4997 or MATH 4999.

# **Mathematical Statistics**

# **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001; 2.0 Cumulative, LSU and Semester GPA.
SEMESTER 2: "C" or better in MATH 1550; 2.0 Cumulative, LSU and Semester GPA.
SEMESTER 3: "C" or better in MATH 1552; 2.0 Cumulative, LSU and Semester GPA; Admission to the College.
SEMESTER 4: "C" or better in MATH 2057; 2.0 Cumulative, LSU and Semester GPA.
SEMESTER 5: "C" or better in MATH 2057; 2.0 Cumulative, LSU and Semester GPA.

#### Semester 1

CRITICAL: "C" or better in ENGL 1001; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5) or
- MATH 1551 HONORS: Analytic Geometry and Calculus I (5)
- Foreign Language Course (4)
- General Education course Natural Sciences sequence (3)<sup>1</sup>
- Natural Sciences Lab (0-1)<sup>1</sup>

#### Total Semester Hours: 15-16

#### Semester 2

CRITICAL: "C" or better in MATH 1550; 2.0 Cumulative, LSU and Semester GPA.

- MATH 1552 Analytic Geometry and Calculus II (4)
- General Education course Natural Sciences sequence (3)<sup>1</sup>
- Natural Sciences Lab (2-1)<sup>1</sup>
- General Education course Arts (3)
- General Education course Social Sciences (3)

#### Total Semester Hours: 15-14

#### Semester 3

CRITICAL: "C" or better in MATH 1552; 2.0 Cumulative, LSU and Semester GPA; Admission to the College.

- MATH 2057 Multidimensional Calculus (3)
- MATH 2020 Solving Discrete Problems (3)<sup>2</sup> or
- MATH 2025 Linear Algebra and Wavelets (3)<sup>2</sup> or
- MATH 2030 Discrete Dynamical Systems (3) <sup>2</sup>
- General Education course Social Sciences (2000-level) (3)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Humanities (English/honors 2000-level) (3)

#### Total Semester Hours: 15

#### Semester 4

CRITICAL: "C" or better in MATH 2057; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 2000 English Composition (3) or
- HNRS 2000 Critical Analysis (3) or
- HNRS 2012 The 19th Century (3) or
- HNRS 2013 The 20th Century (3) or
- HNRS 2020 Contemporary Studies (3) or
- HNRS 2021 Colloquium in the Arts (3) or
- HNRS 2041 Classical Traditions: The Mediterranean World (4) or
- HNRS 2042 Modern Traditions: Europe and the West (4)
- MATH 2085 Linear Algebra (3)
- Math course at 2000-level or higher (3)<sup>3</sup>
- General Education course Humanities (3)
- Approved Elective (3)

#### **Total Semester Hours: 15**

#### Semester 5

**CRITICAL:** "C" or better in MATH 2085, MATH 2020/MATH 2025/MATH 2030; 2.0 Cumulative, LSU and Semester GPA.

- MATH 3355 Probability (3)
- EXST 2201 Introduction to Statistical Analysis (4)
- Approved Electives (9)

#### Total Semester Hours: 16

#### Semester 6

- EXST 3201 Statistical Analysis II (4)
- MATH 4031 Advanced Calculus I (3)
- Approved Electives (9)

#### Total Semester Hours: 16

- MATH 4035 Advanced Calculus of Several Variables (3) or
- MATH 4040 Short-term Actuarial Mathematics I (3) or
- MATH 4045 Long-term Actuarial Mathematics I (3) or
- MATH 4153 Finite Dimensional Vector Spaces (3)
- MATH 4056 Mathematical Statistics (3)

- EXST 4012 Introduction to Sampling Techniques (3)
- MATH 4020 Capstone Course (3) or
- MATH 4997 Vertically Integrated Research (3) or
- EXST 4087 Special Topics in Applied Statistics (3)

#### Semester 8

- MATH 4058 Elementary Stochastic Processes (3)
- Approved Electives (13)

#### **Total Semester Hours: 16**

#### 120 Total Sem. Hrs.

<sup>1</sup> - A mathematics major must take a two-semester sequence from one of the following two lists:

- 1. Biological Sciences: BIOL 1001, BIOL 1002 or BIOL 1201, BIOL 1202
- Physical Sciences: ASTR 1101, ASTR 1102; CHEM 1001, CHEM 1002; CHEM 1201, CHEM 1202; GEOL 1001, GEOL 1003; GEOL 1001, GEOL 2020; GEOL 1111, GEOL 1003; GEOL 1111, GEOL 2020; PHYS 1201, PHYS 1202; PHYS 2001, PHYS 2002; PHYS 2110, PHYS 2112; PHYS 2110, PHYS 2113.

The two-semester sequence must include two hours of corresponding laboratory credit. The student must also take a one-semester course chosen from whichever list above was not used for the two-semester sequence.

 $^{2}$  - A student may substitute for MATH 2020, MATH 2025, or MATH 2030 a 3-hour-or-more math course at the 2000-level or higher that is not otherwise required, upon passing the Math Department's Mathematical Maturity Exam.

<sup>3</sup>- It is recommended that this course be chosen from MATH 2020, MATH 2025, or MATH 2030. In any case, the course must carry at least 3 hours' credit and must not be otherwise required.

#### Secondary Education - Mathematics

### **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in ENGL 1001; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 2: "C" or better in MATH 1550; 2.5 Cumulative and LSU GPA; 2.0 Semester GPA.

SEMESTER 3: "C" or better in MATH 1552; 2.5 Cumulative and LSU GPA; 2.0 Semester GPA; Admission to the College.

SEMESTER 4: "C" or better in MATH 2057; 2.5 Cumulative and LSU GPA; 2.0 Semester GPA.

SEMESTER 5: "C" or better in MATH 2085, MATH 2020/MATH 2025/MATH 2030; 2.5 Cumulative and LSU GPA; 2.0 Semester GPA.

This concentration is part of the Geaux Teach–Math and Sciences Program. Students will obtain a degree in mathematics and, upon completing this concentration and meeting any additional requirements of the Louisiana Department of Education, will be eligible for certification in the state of Louisiana as teachers in grades 6-12.

CRITICAL: "C" or better in ENGL 1001; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- BASC 2010 Inquiry Approaches to Math and Science Teaching (1)
- General Education Course Arts (3)
- General Education course Natural Sciences sequence (3)<sup>1</sup>
- Natural Sciences Lab (0-1)

#### Total Semester Hours: 15-16

#### Semester 2

CRITICAL: "C" or better in MATH 1550; 2.5 Cumulative and LSU GPA; 2.0 Semester GPA.

- MATH 1552 Analytic Geometry and Calculus II (4)
- BASC 2011 Inquiry-Based Math and Science Lesson Design (1)
- General Education course Social Sciences (3)
- General Education course Natural Sciences sequence (3)<sup>1</sup>
- Natural Sciences Lab (2-1)
- Approved Elective (3)

#### Total Semester Hours: 16-15

#### Semester 3

**CRITICAL:** "C" or better in MATH 1552; 2.5 Cumulative and LSU GPA; 2.0 Semester GPA; Admission to the College.

- EDCI 2500 Knowing and Learning in Mathematics and Science (3)
- MATH 2057 Multidimensional Calculus (3)
- MATH 2060 Technology Lab (1)
- General Education course Natural Sciences (3)<sup>1</sup>
- General Education course Humanities (English/honors 2000-level) (3)
- MATH 2020 Solving Discrete Problems (3)<sup>2</sup>

#### **Total Semester Hours: 16**

#### Semester 4

CRITICAL: "C" or better in MATH 2057; 2.5 Cumulative and LSU GPA; 2.0 Semester GPA.

- ENGL 2000 English Composition (3) or
- HNRS 2000 Critical Analysis (3) or
- HNRS 2012 The 19th Century (3) or
- HNRS 2013 The 20th Century (3) or
- HNRS 2020 Contemporary Studies (3) or

- HNRS 2021 Colloquium in the Arts (3) or
- HNRS 2041 Classical Traditions: The Mediterranean World (4) or
- HNRS 2042 Modern Traditions: Europe and the West (4)
- EDCI 3550 Classroom Interactions (3)
- Math course at 2000-level or higher (3)<sup>3</sup>
- MATH 2085 Linear Algebra (3)
- General Education course Humanities (3)

#### Semester 5

**CRITICAL:** "C" or better in MATH 2085, MATH 2020/MATH 2025/MATH 2030; 2.5 Cumulative and LSU GPA; 2.0 Semester GPA.

- MATH 3002 Mathematics Classroom Presentations (2)
- MATH 3355 Probability (3)
- MATH 4031 Advanced Calculus I (3)
- Foreign Language Course (4)
- BIOL 4005 Science Research Methods (3) or
- CHEM 4005 Science Research Methods (3) or
- PHYS 4005 Science Research Methods (3)

#### **Total Semester Hours: 15**

#### Semester 6

- MATH 3003 Functions & Modeling (3)
- MATH 4005 Geometry (3)
- MATH 4700 History of Mathematics (3)
- PHIL 2786 History & Philosophy of Science, Technology, and Mathematics (3)
- Approved Elective (3)

#### **Total Semester Hours: 15**

- EDCI 4500 Instructional Models for Mathematics and Science (3)
- MATH 4019 Calculus Internship Capstone (2)
- MATH 4023 Applied Algebra (3) or
- MATH 4181 Elementary Number Theory (3) or
- MATH 4200 Abstract Algebra I (3)
- Approved Elective (8)

#### Semester 8

- EDCI 4006 Student Teaching in Grades 6-12 Mathematics and Sciences (9)
- EDCI 3136 Reading in the Content Areas (3)

**Total Semester Hours: 12** 

120 Total Sem. Hrs.

<sup>1</sup> - A mathematics major must take a two-semester sequence from one of the following two lists:

- 1. Biological Sciences: BIOL 1001, BIOL 1002 or BIOL 1201, BIOL 1202
- Physical Sciences: ASTR 1101, ASTR 1102; CHEM 1001, CHEM 1002; CHEM 1201, CHEM 1202; GEOL 1001, GEOL 1003; GEOL 1001, GEOL 2020; GEOL 1111, GEOL 1003; GEOL 1111, GEOL 2020; PHYS 1201, PHYS 1202; PHYS 2001, PHYS 2002; PHYS 2110, PHYS 2112; PHYS 2110, PHYS 2113.

The two-semester sequence must include two hours of corresponding laboratory credit. The student must also take a one-semester course chosen from whichever list above was not used for the two-semester sequence.

**NOTE**: EDCI 2500 will count as one of the General Education Social Sciences courses. Students should plan their course work so that the last semester of the senior year can accommodate the 12 hours that are required to be taken concurrently (EDCI 4006 and EDCI 3136).

 $^{2}$  - A student may substitute for MATH 2020 a 3-hour-or-more math course at the 2000-level or higher that is not otherwise required, upon passing the Math Department's Mathematical Maturity Exam.

<sup>3</sup>- It is recommended that this course be chosen from MATH 2025 or MATH 2030. In any case, the course must carry at least 3 hours' credit and must not be otherwise required.

### **Department of Physics & Astronomy**

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#### For information regarding the GRADUATE PROGRAM, click here.

The Department of Physics & Astronomy offers master's degrees for medical physics studies. For additional information, see the section, "The Graduate School" in this catalog.

The undergraduate degree in physics provides rigorous training in problem solving, critical thinking, mathematical and computational skills, and experimental technique. The degree prepares the student for careers not only in physics, but other areas of science and engineering, as well as professional programs such as medicine and law.

Students majoring in physics pick from one of five concentrations: physics, astronomy, medical physics, second discipline and secondary education (GEAUX TEACH). The introductory sequence for majors is PHYS 1201, PHYS 1202, and PHYS 2203, plus the accompanying lab courses PHYS 1208, PHYS 1209, and PHYS 2207. Students may use the 9 hours of PHYS

2110, PHYS 2112, PHYS 2113 to substitute for the 8 hours of PHYS 1201 and PHYS 1202. Students also take 3 semesters of calculus, plus differential equations and linear algebra.

Advanced training in physics consists of courses in computational physics, PHYS 2411, instrumentation electronics, PHYS 3098 and a series of courses that go into greater depth over the same material covered in the introductory sequence. This common core of courses consists of mathematical methods and mechanics, PHYS 2221, electromagnetism, PHYS 2231 and PHYS 4132, and thermodynamics, PHYS 4125. Although not all concentrations require them, students who are contemplating graduate study in physics, astronomy, or engineering should take advanced mechanics, PHYS 4123 and quantum mechanics, PHYS 4141. PHYS 4125 and PHYS 4132 are optional for students in the secondary education concentration, but are strongly recommended as the required physics electives for that concentration. All undergraduate majors are encouraged to participate in one of the many research groups in the department and can receive academic credit towards their degree by doing so.

Students majoring in physics may complete the minor in Nuclear Science, provided that they take at least 9 hours of the classes listed for the minor in addition to any being used to complete their physics major.

**Prerequisites** • All prerequisites in physics courses should be rigidly observed. **Corequisites** • A student may not continue in a course after dropping a corequisite course prior to the last day of the midsemester examination period.

### **Nuclear Science Minor**

Undergraduate students on this campus may choose to minor in nuclear science. The following conditions must be met:

- Approval from the Department of Physics & Astronomy
- At least 22 credit hours in nuclear science, medical physics and health physics, and physics courses. Required courses are PHYS 2110, PHYS 2112, PHYS 2113, PHYS 2108, PHYS 2109 (or PHYS 1201, PHYS 1202, PHYS 1208, PHYS 1209), plus 12 additional credit hours which must be taken from the following: MEDP 2051, MEDP 4331, MEDP 4351, MEDP 4352; NS 4352, NS 4411, NS 4570; and PHYS 2203, PHYS 2207, PHYS 3098, PHYS 4271.

### **Physics Minor**

An undergraduate *minor in physics* is available. Required courses are: PHYS 1201, PHYS 1202, PHYS 1208, PHYS 1209 (or PHYS 2110, PHYS 2112, PHYS 2113, PHYS 2108, PHYS 2109), and PHYS 2221, plus three additional courses, for a total of 22-23 hours. The three additional courses, at least one of which must be at the 4000 level, must be chosen from the following: PHYS 2203, PHYS 2231, PHYS 2411, PHYS 3098, or any three credit hour PHYS or ASTR course numbered from 4100 to 4299.

### Physics, B.S.

#### Areas of Concentration

Students planning to enter graduate school are encouraged to select a modern foreign language.

Astronomy

### **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in MATH 1022/MATH 1023 and ENGL 1001; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 2: "C" or better in MATH 1550; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 3: "C" or better in MATH 1552 and PHYS 1201/PHYS 2110; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 4: "C" or better in MATH 2057 and PHYS 1202/PHYS 2113; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 5: "C" or better in MATH 2090 and PHYS 2203; 2.0 Cumulative, LSU and Semester GPA.

#### Semester 1

CRITICAL: "C" or better in MATH 1022/MATH 1023 and ENGL 1001; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- PHYS 1201 General Physics for Physics Majors (4) <sup>1</sup>
- PHYS 1208 General Physics Laboratory for Physics Majors (1)
- General Education course Arts (3)

#### **Total Semester Hours: 16**

#### Semester 2

**CRITICAL:** "C" or better in MATH 1550; 2.0 Cumulative, LSU and Semester GPA.

- MATH 1552 Analytic Geometry and Calculus II (4)
- PHYS 1202 General Physics for Physics Majors (4) <sup>1</sup>
- PHYS 1209 General Physics Laboratory for Physics Majors (1)
- General Education course Humanities (3)
- General Education Course Humanities (ENGL/HNRS 2000-Level) (3)

#### **Total Semester Hours: 15**

#### Semester 3

**CRITICAL:** "C" or better in MATH 1552 and PHYS 1201/PHYS 2110; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

- ASTR 1101 The Solar System (3)
- ENGL 2000 English Composition (3)
- MATH 2057 Multidimensional Calculus (3)
- PHYS 2203 Introductory Modern Physics (3)
- PHYS 2207 Introductory Modern Physics Laboratory (1)
- CSC 1253 Computer Science I with C++ (3) or equivalent programming course

#### Total Semester Hours: 16

#### Semester 4

CRITICAL: "C" or better in MATH 2057 and PHYS 1202/PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

- ASTR 1102 Stellar Astronomy (3)
- MATH 2090 Elementary Differential Equations and Linear Algebra (4)
- PHYS 2221 Introduction to Mechanics (3)
- PHYS 3098 Instrumentation Electronics for Scientists (3)
- BIOL 1001 General Biology (3) or
- BIOL 1201 Biology for Science Majors I (3)

#### Semester 5

CRITICAL: "C" or better in MATH 2090 and PHYS 2203; 2.0 Cumulative, LSU and Semester GPA.

- ASTR 4221 Introductory Astrophysics (3)<sup>2</sup>
- PHYS 2231 Electricity and Magnetism (3)
- PHYS 2411 Computational Science I (3)
- PHYS 4123 Intermediate Mechanics (3)
- General Education Course Social Sciences (2000-level) (3)

#### **Total Semester Hours: 15**

#### Semester 6

- ASTR 4222 Introductory Astrophysics (3)<sup>2</sup>
- PHYS 4132 Electromagnetism and Electromagnetic Waves (3)
- PHYS 4125 Thermodynamics and Statistical Mechanics (3)
- PHYS 4141 Introduction to Quantum Mechanics (3)
- Foreign Language Course (4)

#### Total Semester Hours: 16

#### Semester 7

- ASTR 4261 Modern Observational Techniques (3)<sup>2</sup>
- General Education Course Social Sciences (3)
- Approved Electives (6)

#### Total Semester Hours: 12

- PHYS 4135 Modern Optics (3)<sup>2</sup>
- Approved Electives (11)

#### 120 Total Sem. Hrs.

<sup>1</sup> - Students may take the complete PHYS 2110, PHYS 2112, PHYS 2113 sequence in place of the PHYS 1201, PHYS 1202 sequence. A student who chooses the three semester sequence will require one less credit hour from free electives

 $^{2}$  - ASTR 4221 and ASTR 4222 are taught in alternate years with ASTR 4261 and PHYS 4135. Students are to switch the semester that these courses are taken depending on what is offered that year.

#### **Medical Physics**

### **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in MATH 1022/MATH 1023 and ENGL 1001; 2.0 Cumulative, LSU and Semester GPA.
SEMESTER 2: "C" or better in MATH 1550; 2.0 Cumulative, LSU and Semester GPA.
SEMESTER 3: "C" or better in MATH 1552 and PHYS 1201/PHYS 2110; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.
SEMESTER 4: "C" or better in MATH 2057 and PHYS 1202/PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.
SEMESTER 5: "C" or better in MATH 2057 and PHYS 2203; 2.0 Cumulative, LSU and Semester GPA.

#### Semester 1

CRITICAL: "C" or better in MATH 1022/MATH 1023 and ENGL 1001; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- PHYS 1208 General Physics Laboratory for Physics Majors (1)
- PHYS 1201 General Physics for Physics Majors (4) <sup>1</sup>
- General Education course Arts (3)

**Total Semester Hours: 16** 

#### Semester 2

CRITICAL:"C" or better in MATH 1550; 2.0 Cumulative, LSU and Semester GPA.

- MATH 1552 Analytic Geometry and Calculus II (4)
- PHYS 1202 General Physics for Physics Majors (4) <sup>1</sup>
- PHYS 1209 General Physics Laboratory for Physics Majors (1)
- General Education Course Humanities (3)
- General Education Course Humanities (ENGL/HNRS 2000-Level) (3)

Total Semester Hours: 15

**CRITICAL:** "C" or better in MATH 1552 and PHYS 1201/PHYS 2110; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

- MATH 2057 Multidimensional Calculus (3)
- ENGL 2000 English Composition (3)
- CHEM 1201 General Chemistry I (3)
- PHYS 2203 Introductory Modern Physics (3)
- PHYS 2207 Introductory Modern Physics Laboratory (1)
- CSC 1253 Computer Science I with C++ (3) or equivalent programming course

#### **Total Semester Hours: 16**

#### Semester 4

CRITICAL: "C" or better in MATH 2057 and PHYS 1202/PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

- CHEM 1202 General Chemistry (3)
- CHEM 1212 General Chemistry Laboratory (2)
- MATH 2090 Elementary Differential Equations and Linear Algebra (4)
- PHYS 2221 Introduction to Mechanics (3)
- MEDP 2051 Radiation Science with Applications (3)

#### Total Semester Hours: 15

#### Semester 5

CRITICAL: "C" or better in MATH 2090 and PHYS 2203; 2.0 Cumulative, LSU and Semester GPA.

- CHEM 2060 Survey of Organic Chemistry (3)
- BIOL 1201 Biology for Science Majors I (3)
- PHYS 2231 Electricity and Magnetism (3)
- PHYS 2411 Computational Science I (3)
- General Education course Social Sciences (2000-level) (3)

#### Total Semester Hours: 15

#### Semester 6

- BIOL 1202 Biology for Science Majors II (3)
- PHYS 3098 Instrumentation Electronics for Scientists (3)
- NS 4411 Fundamentals of Nuclear Radiation Science (3)
- PHYS 4132 Electromagnetism and Electromagnetic Waves (3)
- Foreign Language Course (4)

#### Total Semester Hours: 16

- PHYS 4123 Intermediate Mechanics (3)
- MEDP 4352 Radiation Detection Laboratory (1)
- MEDP 4351 Radiation Detection and Instrumentation (2)
- General Education course Social Sciences (3)
- Approved Electives (6)

#### Semester 8

- BIOL 2160 Human Physiology (3)
- PHYS 4141 Introduction to Quantum Mechanics (3)
- PHYS 4125 Thermodynamics and Statistical Mechanics (3)
- Approved Elective (3)

Total Semester Hours: 12

#### 120 Total Sem. Hrs.

<sup>1</sup> - Students may take the complete PHYS 2110, PHYS 2112, PHYS 2113 sequence in place of the PHYS 1201, PHYS 1202 sequence. A student who chooses the three semester sequence will require one less credit hour from free electives.

#### Physics

### **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in MATH 1022/MATH 1023 and ENGL 1001; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 2: "C" or better in MATH 1550; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 3: "C" or better in MATH 1552 and PHYS 1201/PHYS 2110; Admission to the College; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 4: "C" or better in MATH 2057 and PHYS 1202/PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 4: "C" or better in MATH 2057 and PHYS 1202/PHYS 2113; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 5: "C" or better in MATH 2090 and PHYS 2203; 2.0 Cumulative, LSU and Semester GPA.

#### Semester 1

CRITICAL: "C" or better in MATH 1022/MATH 1023 and ENGL 1001; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- PHYS 1201 General Physics for Physics Majors (4) <sup>1</sup>
- PHYS 1208 General Physics Laboratory for Physics Majors (1)
- General Education Course Arts (3)

Total Semester Hours: 16

CRITICAL: "C" or better in MATH 1550; 2.0 Cumulative, LSU and Semester GPA.

- MATH 1552 Analytic Geometry and Calculus II (4)
- PHYS 1202 General Physics for Physics Majors (4) <sup>1</sup>
- PHYS 1209 General Physics Laboratory for Physics Majors (1)
- General Education Course Humanities (ENGL/HNRS 2000-Level) (3)
- General Education course Humanities (3)

#### Total Semester Hours: 15

#### Semester 3

**CRITICAL:** "C" or better in MATH 1552 and PHYS 1201/PHYS 2110; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

- MATH 2057 Multidimensional Calculus (3)
- ENGL 2000 English Composition (3)
- PHYS 2203 Introductory Modern Physics (3)
- PHYS 2207 Introductory Modern Physics Laboratory (1)
- CSC 1253 Computer Science I with C++ (3) or equivalent programming course
- Approved Electives (3)

#### Total Semester Hours: 16

#### Semester 4

CRITICAL: "C" or better in MATH 2057 and PHYS 1202/PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

- MATH 2090 Elementary Differential Equations and Linear Algebra (4)
- PHYS 2221 Introduction to Mechanics (3)
- PHYS 3098 Instrumentation Electronics for Scientists (3)
- CHEM 1201 General Chemistry I (3)
- BIOL 1001 General Biology (3) or
- BIOL 1201 Biology for Science Majors I (3)

#### Total Semester Hours: 16

#### Semester 5

CRITICAL: "C" or better in MATH 2090 and PHYS 2203; 2.0 Cumulative, LSU and Semester GPA.

- PHYS 4123 Intermediate Mechanics (3)
- CHEM 1202 General Chemistry (3)
- PHYS 2231 Electricity and Magnetism (3)
- PHYS 2411 Computational Science I (3)
- General Education Course Social Sciences (2000-level) (3)

#### Semester 6

- PHYS 4132 Electromagnetism and Electromagnetic Waves (3)
- PHYS 4125 Thermodynamics and Statistical Mechanics (3)
- PHYS 4141 Introduction to Quantum Mechanics (3)
- Foreign Language Course (4)

#### Total Semester Hours: 13

#### Semester 7

- PHYS 4142 Introduction to Quantum Mechanics (3)
- PHYS 4000-Level Course (3)<sup>2</sup>
- General Education Course Social Sciences (3)
- Approved Electives (6)

#### **Total Semester Hours: 15**

#### Semester 8

- PHYS 4399 Senior Thesis (3)
- PHYS 4000-Level Course (3)<sup>2</sup>
- Approved Electives (8)

#### **Total Semester Hours: 14**

#### 120 Total Sem. Hrs.

<sup>1</sup> - Students may take the complete PHYS 2110, PHYS 2112, PHYS 2113 sequence in place of the PHYS 1201, PHYS 1202 sequence. A student who chooses the three semester sequence will require one less credit hour from free electives.

<sup>2</sup> - Area of Concentration Course: two 4000-level PHYS electives. With permission, a 4000-level MATH may be substituted for a 4000-level PHYS course.

#### **Physics & Second Discipline**

### **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in MATH 1022/MATH 1023 and ENGL 1001; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 2: "C" or better in MATH 1550; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 3: "C" or better in MATH 1552 and PHYS 1201/PHYS 2110; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

SEMESTER 4: "C" or better in MATH 2057 and PHYS 1202/PHYS 2113; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 5: "C" or better in MATH 2090 and PHYS 2203; 2.0 Cumulative, LSU and Semester GPA.

#### Semester 1

CRITICAL: "C" or better in MATH 1022/MATH 1023 and ENGL 1001; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- PHYS 1201 General Physics for Physics Majors (4) <sup>1</sup>
- PHYS 1208 General Physics Laboratory for Physics Majors (1)
- General Education course Arts (3)

#### **Total Semester Hours: 16**

#### Semester 2

CRITICAL: "C" or better in MATH 1550; 2.0 Cumulative, LSU and Semester GPA.

- MATH 1552 Analytic Geometry and Calculus II (4)
- PHYS 1202 General Physics for Physics Majors (4)<sup>1</sup>
- PHYS 1209 General Physics Laboratory for Physics Majors (1)
- General Education course Humanities (3)
- General Education Course Humanities (ENGL/HNRS 2000-Level) (3)

#### Total Semester Hours: 15

#### Semester 3

**CRITICAL:** "C" or better in MATH 1552 and PHYS 1201/PHYS 2110; Admission to the College; 2.0 Cumulative, LSU and Semester GPA.

- MATH 2057 Multidimensional Calculus (3)
- PHYS 2203 Introductory Modern Physics (3)
- PHYS 2207 Introductory Modern Physics Laboratory (1)
- ENGL 2000 English Composition (3)
- CSC 1253 Computer Science I with C++ (3) or equivalent programming course
- Area of Concentration Course (3)<sup>2</sup>

#### **Total Semester Hours: 16**

#### Semester 4

CRITICAL: "C" or better in MATH 2057 and PHYS 1202/PHYS 2113; 2.0 Cumulative, LSU and Semester GPA.

- MATH 2090 Elementary Differential Equations and Linear Algebra (4)
- PHYS 2221 Introduction to Mechanics (3)
- PHYS 3098 Instrumentation Electronics for Scientists (3)
- Area of Concentration Course (3)<sup>2</sup>

- BIOL 1001 General Biology (3) or
- BIOL 1201 Biology for Science Majors I (3)

#### Semester 5

**CRITICAL:** "C" or better in MATH 2090 and PHYS 2203; 2.0 Cumulative, LSU and Semester GPA.

- PHYS 2231 Electricity and Magnetism (3)
- PHYS 2411 Computational Science I (3)
- Area of Concentration Course (3)<sup>2</sup>
- General Education Course Social Sciences (2000-level) (3)
- Approved Elective (3)

#### Total Semester Hours: 15

#### Semester 6

- PHYS 4125 Thermodynamics and Statistical Mechanics (3)
- PHYS 4132 Electromagnetism and Electromagnetic Waves (3)
- Foreign Language Course (4)
- Area of Concentration Course (3)<sup>2</sup>

#### Total Semester Hours: 13

#### Semester 7

- General Education course Social Sciences (3)
- Area of Concentration Courses (6)<sup>2</sup>
- Approved Electives (6)

#### Total Semester Hours: 15

#### Semester 8

- Area of Concentration Courses (6)<sup>2</sup>
- Approved Electives (8)

#### Total Semester Hours: 14

#### 120 Total Sem. Hrs.

<sup>1</sup> - Students may take the complete PHYS 2110, PHYS 2112, PHYS 2113 sequence in place of the PHYS 1201, PHYS 1202 sequence. A student who chooses the three semester sequence will require one less credit hour from free electives.

 $^{2}$  - At least 24 semester hours from an approved discipline outside of the Department of Physics & Astronomy; any second area may be chosen with consent of the dean and department advisor. The approved area form must be submitted no later than the sophomore year.

#### Secondary Education - Physics

## **CRITICAL REQUIREMENTS**

SEMESTER 1: "C" or better in MATH 1022/MATH 1023 and ENGL 1001; 2.0 Cumulative, LSU and Semester GPA. SEMESTER 2: "C" or better in MATH 1550; 2.0 Semester GPA; 2.5 Cumulative and LSU GPA.

SEMESTER 3: "C" or better in MATH 1552 and PHYS 1201/PHYS 2110; Admission to the College; 2.0 Semester GPA; 2.5 Cumulative and LSU GPA.

SEMESTER 4: "C" or better in MATH 2057 and PHYS 1202/PHYS 2113; 2.0 Semester GPA; 2.5 Cumulative and LSU GPA. SEMESTER 5: "C" or better in MATH 2090 and PHYS 2203; 2.0 Semester GPA; 2.5 Cumulative and LSU GPA.

This concentration is part of the Geaux Teach–Math and Sciences Program. Students will obtain a degree in physics and, upon completing this concentration and meeting any additional requirements of the Louisiana Department of Education, will be eligible for certification in the state of Louisiana as teachers in grades 6-12.

#### Semester 1

CRITICAL: "C" or better in MATH 1022/MATH 1023 and ENGL 1001; 2.0 Cumulative, LSU and Semester GPA.

- ENGL 1001 English Composition (3)
- BASC 2010 Inquiry Approaches to Math and Science Teaching (1)
- MATH 1550 Analytic Geometry and Calculus I (5)
- PHYS 1201 General Physics for Physics Majors (4) <sup>1</sup>
- PHYS 1208 General Physics Laboratory for Physics Majors (1)

#### **Total Semester Hours: 14**

#### Semester 2

CRITICAL: "C" or better in MATH 1550; 2.0 Semester GPA; 2.5 Cumulative and LSU GPA.

- BASC 2011 Inquiry-Based Math and Science Lesson Design (1)
- MATH 1552 Analytic Geometry and Calculus II (4)
- PHYS 1202 General Physics for Physics Majors (4)<sup>1</sup>
- PHYS 1209 General Physics Laboratory for Physics Majors (1)
- General Education Course Humanities (ENGL/HNRS 2000-Level) (3)
- General Education course Arts (3)

#### Total Semester Hours: 16

#### Semester 3

**CRITICAL:** "C" or better in MATH 1552 and PHYS 1201/PHYS 2110; Admission to the College; 2.0 Semester GPA; 2.5 Cumulative and LSU GPA.

- EDCI 2500 Knowing and Learning in Mathematics and Science (3)<sup>2</sup>
- MATH 2057 Multidimensional Calculus (3)
- PHYS 2203 Introductory Modern Physics (3)
- ENGL 2000 English Composition (3)
- PHYS 2207 Introductory Modern Physics Laboratory (1)
- CSC 1253 Computer Science I with C++ (3) or equivalent programming course

#### Semester 4

**CRITICAL:** "C" or better in MATH 2057 and PHYS 1202/PHYS 2113; 2.0 Semester GPA; 2.5 Cumulative and LSU GPA.

- EDCI 3550 Classroom Interactions (3)
- MATH 2090 Elementary Differential Equations and Linear Algebra (4)
- PHYS 2221 Introduction to Mechanics (3)
- PHYS 3098 Instrumentation Electronics for Scientists (3)
- BIOL 1001 General Biology (3) or
- BIOL 1201 Biology for Science Majors I (3)

#### Total Semester Hours: 16

#### Semester 5

CRITICAL: "C" or better in MATH 2090 and PHYS 2203; 2.0 Semester GPA; 2.5 Cumulative and LSU GPA.

- PHIL 2786 History & Philosophy of Science, Technology, and Mathematics (3)
- PHYS 2231 Electricity and Magnetism (3)
- PHYS 2411 Computational Science I (3)
- General Education Course Humanities (3)
- ASTR 1101 The Solar System (3) or
- CHEM 1201 General Chemistry I (3)

#### Total Semester Hours: 15

- PHYS 4005 Science Research Methods (3)
- ASTR 1102 Stellar Astronomy (3) or
- CHEM 1202 General Chemistry (3)
- PHYS 4000-Level Courses (6)<sup>2</sup>
- Foreign Language Course (4)

#### Semester 7

- EDCI 4500 Instructional Models for Mathematics and Science (3)
- General Education course Social Sciences (3)
- Approved Electives (9)

#### Total Semester Hours: 15

#### Semester 8

- EDCI 4006 Student Teaching in Grades 6-12 Mathematics and Sciences (9)
- EDCI 3136 Reading in the Content Areas (3)

#### Total Semester Hours: 12

#### 120 Total Sem. Hrs.

<sup>1</sup> - Students may take the complete PHYS 2110, PHYS 2112, PHYS 2113 sequence in place of the PHYS 1201, PHYS 1202 sequence. A student who chooses the three semester sequence will require one less credit hour from free electives.

<sup>2</sup>- EDCI 2500 will count as one of the General Education social science courses. Some general education courses are taken in different years than in the standard curriculum. Students should plan their course work so that the last semester of the senior year can accommodate the 12 hours that are required to be taken concurrently (EDCI 4006 and EDCI 3136). PHYS 4125 and PHYS 4132 are not required for this concentration, but may be used as physics 4000 electives.

# **PRINT ONLY - GRAD - PROGRAM FILTERS**

# **The Graduate School**

MALCOLM RICHARDSON	CAROL WICKS		
Interim Dean	Interim Associate Dean		
TIFFANY GALASSO	LEILA SHAIK		
Assistant Dean	Assistant Director Admissions and Recruiting		
CLOVIER I. TORRY	RODNEY GOLDSMITH		
Director of Academic Services, Professional Development &			
Diversity	Assistant to the Dean		
Direisily			
OFFICE 114 David Boyd Hall			
TELEPHONE 225-578-2311			
FAX 225-578-2112			
WEBSITE www.gradschool.lsu.edu			

# **Departments, Schools, and Curricula**

The pages below represent all departmental and interdepartmental graduate programs offering formal degrees . Each description includes, for each major field, a variety of subheadings—program overview, administration, degree programs, the graduate faculty (including research areas), and other information of interest to students and applicants. Also included are interdepartmental programs that do not offer degrees. In these programs, a student enrolls in one of the participating departments and earns his or her degree in that department, although his or her research is done through the interdepartmental program.

For additional information about any graduate program at LSU, please contact the appropriate department.

- Accounting (Graduate Program)
- Agricultural & Extension Education (Graduate Program)
- Agricultural Economics & Agribusiness (Graduate Program)
- Animal Sciences (Graduate Program)
- Architecture (Graduate Program)

- Computer Science & Engineering (Graduate Program)
- Construction
   Management
   (Graduate Program)
- Digital Media Art & Engineering (Graduate Program)
- Economics (Graduate Program)
- Education (Graduate Program)

- Industrial
   Engineering
   (Graduate Program)
- Kinesiology (Graduate Program)
- Landscape
   Architecture
   (Graduate Program)
- Leadership & Human Resource Development (Graduate Program)
- Interdepartmental Program in Liberal

- Oceanography & Coastal Sciences (Graduate Program)
- Pathobiological Sciences (Graduate Program)
- Petroleum
   Engineering
   (Graduate Program)
- Philosophy (Graduate Program)
- Physics & Astronomy (Graduate Program)

- Art & Art History (Graduate Program)
- Interdisciplinary Program in Art + Design (Graduate Program)
- Biological & Agricultural Engineering (Graduate Program)
- Biological Sciences (Graduate Program)
- Interdepartmental Studies in Business Administration (Graduate Program)
- Chemical Engineering (Graduate Program)
- Chemistry (Graduate Program)
- Civil & Environmental Engineering (Graduate Program)
- Communication Sciences & Disorders (Graduate Program)
- Communication Studies (Graduate Program)
- Comparative Biomedical Sciences (Graduate Program)
- Comparative Literature (Graduate Program)

Electrical & Computer Engineering (Graduate Program)

•

- Interdisciplinary Program in Engineering Science (Graduate Program)
- English (Graduate Program)
- Entomology (Graduate Program)
- Environmental Sciences (Graduate Program)
- Experimental Statistics (Graduate Program)
- Finance (Graduate Program)
- Foreign Languages & Literatures (Graduate Program)
- French Studies (Graduate Program)
- Geography &
   Anthropology
   (Graduate Program)
- Geology & Geophysics (Graduate Program)
- History (Graduate Program)

Arts (Graduate Program)

- Library & Information Science (Graduate Program)
- Management (Graduate Program)
- Marketing (Graduate Program)
- Mass Communication (Graduate Program)
- Interdisciplinary Certificate Program in Materials Science and Engineering (Graduate Program)
- Mathematics (Graduate Program)
- Mechanical and Industrial Engineering (Graduate Program)
- Music (Graduate Program)
- Interdisciplinary Program in Natural Sciences (Graduate Program)
- Nutrition and Food Sciences (Graduate Program)

- Plant, Environmental & Soil Sciences (Graduate Program)
- Plant Pathology & Crop Physiology (Graduate Program)
- Political Science (Graduate Program)
- Psychology (Graduate Program)
- Public
   Administration
   Institute (Graduate
   Program)
- Renewable Natural Resources (Graduate Program)
- Social Work (Graduate Program)
- Sociology (Graduate Program)
- Stephenson Department of Entrepreneurship & Information Systems (Graduate Program)
- Textiles, Apparel & Merchandising (Graduate Program)
- Theatre (Graduate Program)
- Veterinary Clinical Sciences (Graduate Program)

A complete listing of degree programs offered can be found Graduate Degree Codes 2019-20.

# **Degree Programs**

All degree programs are listed by title followed by the LSU curriculum code, e.g.:

- Master of Science (MS) in Petroleum Engineering (MPETE)
- Doctor of Philosophy (PhD) in Political Science (PPOLI)

# **Graduate Minors**

Click here to view a list of Graduate Minor Codes 2019-20.

# Introduction

This chapter contains information for individuals considering graduate study at Louisiana State University, as well as for enrolled students, faculty, and staff.

For prospective students: this chapter provides a guide to LSU's resources for graduate and professional study, to the expertise of the graduate faculty, and other pertinent matters, including application procedures and criteria, graduate assistantships and fellowships, and degree requirements.

For enrolled students, faculty, and staff: this chapter serves as a handbook for graduate study at LSU. The rules and regulations of the Graduate School, as well as detailed descriptions of requirements for advanced degrees, are included.

This Graduate School chapter presents a flexible program of the current graduate educational plans, offerings, and requirements that may be altered from time to time to carry out the purposes and objectives of Louisiana State University. The provisions of this chapter do not constitute an offer for a contract that is accepted by students through registration and enrollment in the university. The university reserves the right to change any provision, offering, or requirement at any time within the student's period of study at LSU.

# **Graduate Programs**

Information on specific degree programs or areas of study is available directly from the department offering the degree. Further information is available online at www.gradschool.lsu.edu.

LSU has developed flexible rules for the composition of advisory committees for masters and doctoral students that allow students to work with professors from several departments. It is strongly recommended to look beyond the formal boundaries of the potential or current graduate program to get a clear picture of the resources of the university.

A complete listing of graduate course offerings can be found in the \*\*COURSE SEARCH\*\* section.

Some graduate courses are only available in a two- or three-year rotation, persons interested in knowing the specific courses available in a given academic year should request lists of graduate course offerings directly from the departments in which they are interested.

### Admission

Applicants must be admitted to both the Graduate School and to a specific graduate program. All prospective graduate students must complete an online application.

# **Concepts and Purpose**

Doctoral research programs are an essential defining feature of a university. As one of the top 115 research universities in the nation, LSU is classified as a Doctoral University of Highest Research Activity by the Carnegie Foundation. This depends chiefly on two criteria indicating that LSU is a major center for the creation of new knowledge: research funding and doctoral education, both of which ensure the training of future generations of scholars and teachers. The synergy between our nationally renowned faculty and our graduate student population helps to keep Louisiana and the nation on the leading edge of discovery.

The Graduate School's primary purposes are:

- Supporting a broad array of graduate degree programs and extensive research opportunities designed to attract, educate, and graduate highly qualified students.
- Supporting faculty who are excellent teacher-scholars, nationally competitive in research and creative activities, and who, together with staff and students, contribute to solving economic, cultural, environmental, educational, and social challenges via development of new resources.

The Graduate School administers more than 120 graduate degree programs offered at LSU. After recognizing its obligation to provide an environment for research and inquiry, LSU established the Graduate School to make the results of these activities available to the public.

As the state's center of academic research and advanced studies, the Graduate School administers a more extensive and comprehensive program than any other educational institution in Louisiana.

LSU offers doctoral programs in 48 major fields of study with opportunities for advanced training and research in all areas of the sciences, social sciences, and humanities. Master's degree programs are offered in 72 major fields. These range from Master of Fine Arts degrees in fields such as creative writing, studio art, and theatre, to professional degree programs in social work, business administration, and library and information science. Graduate Certificates are available in 20 fields of study.

Additional information about specific graduate and professional programs is published in catalogs and brochures that can be obtained from individual departments or schools at the addresses listed in this chapter. This information can also be accessed online through the LSU homepage.

# **History and Organization**

The first awarded graduate degree on record at LSU was a master's degree in civil engineering awarded in 1869. By 1890, 14 master's degrees had been awarded, and by 1909, 32 individuals had received graduate diplomas. In 1909, the Graduate Department was established; the general supervision of graduate work was vested in a Committee on Graduate Courses. During the period from 1909 to 1931, 439 master's degrees were awarded.

1931 through spring 2018, 11,833 Doctor of Philosophy degrees, 675 doctorates other than Doctor of Philosophy degrees, and 57,405 master's degrees were awarded. The total number of advanced degrees awarded by LSU thus reached 69,913.

The graduate dean, in consultation with the Graduate Council, administers the Graduate School. This council is composed of the Dean of the Graduate School and the Associate Dean of the Graduate School, who serves as ex-officio members, and 17 faculty members appointed for rotating terms of five years each by the graduate dean with the confirmation of the provost. The council considers proposals for new degree programs, recommends graduate faculty membership classifications, and recommends changes in Graduate School policy.

# **Admission to Graduate Study**

Admission to the Graduate School is awarded on the basis of evidence of academic achievement and promise. Applicants must be accepted by both the department in the applicant's area of study and by the Graduate School. The required documents described below are first collected by the Graduate School. Applications of students who meet the Graduate School requirements are then forwarded by the Graduate School to the appropriate academic unit for evaluation.

Some programs require higher admission standards than those of the Graduate School. Due to the high demand for many graduate programs, meeting the minimum requirements of the Graduate School does not guarantee admission into a particular program.

# Overview

Applicants meeting the following requirements are eligible for regular admission to the Graduate School. Applicants not meeting all requirements detailed below (such as weaker undergraduate records) might be granted probationary admission; provided other substantial evidence of capacity to do satisfactory graduate work such as outstanding performance in post baccalaureate and/or graduate work, high Graduate Record Examination (GRE) scores (or Graduate Management Admission Test [GMAT] scores, where appropriate), and other outstanding achievement, is presented.

Applicants who appear admissible on the basis of unofficial and/or incomplete transcripts of previous work or unofficial test scores, but who are unable to supply the required records prior to registration, may be granted provisional admission. Subsequent enrollment will not be permitted until all provisions are met. Provisional admission does not guarantee subsequent regular admission to the Graduate School.

### **Admission to a Degree Program**

### **Regular Admission**

Regular admission is awarded to applicants who intend to pursue a degree and meet the following requirements:

- A bachelor's degree from an accredited U.S. institution or the equivalent from a foreign institution.
- A grade point average of at least 3.00 on all undergraduate work (or last half-degree requirement) and a 3.00 GPA or better on any graduate work already completed.
- Applicants may be required to submit standardized test scores, depending upon their program requirements. Applicants need to contact the program of interest to inquire about specific test scores needed (GRE or GMAT) and score expectations.
- Acceptance by the graduate faculty in the applicant's area of study. Consult individual departments for additional admission requirements.
- A resume with a complete and accurate chronological outline of all previous college-level education.
- Complete application procedures are described below under "Application Procedure"

### **Probationary Admission**

Applicants who do not meet one or more of the requirements for regular admission may be admitted on probation, provided additional evidence of capacity to do satisfactory work is presented. Such evidence might include superior performance in a substantial amount of post baccalaureate work, high GRE scores (GMAT scores, when appropriate), and other achievements. Probationary status must be approved and requested by the admitting department.

Students entering on probation will remain on probation until the completion of nine hours of graduate-level, graded courses with at least a 3.00 average. Part-time students entering on probation and registering for fewer than nine hours may be dropped from the Graduate School if their GPA is less than 3.00 during any semester in which they are registered.

Students admitted on probation may not be appointed to assistantships or fellowships until they attain good academic standing. (See PS-21 for additional information.)

### **Provisional Admission**

Provisional admission may be considered for applicants who appear to be admissible on the basis of the credentials submitted, but who are unable to supply all of the required official records prior to registration. Students admitted provisionally must submit complete and satisfactory records within 30 days after the first day of class for the semester in which graduate study begins. If these credentials are not received by the date specified, or if they prove to be unsatisfactory, students will not be permitted to register for the following semester. Provisional admission does not guarantee subsequent regular admission.

# Admission of International Students - Additional Information and Requirements

Applicants who have completed degree requirements outside the U.S. must present all of the following:

- A resume with a complete and accurate chronological outline of all previous college-level education.
- Authorized school or university records— such as but not limited to transcripts, marksheets, certificates of degrees— showing all courses taken and all grades received (with certified translations if the records are in a language other than English.
- A bachelor's degree or its equivalent, with a grade point average of 3.0 on a 4.0 scale or better on all previous undergraduate work (or last half-degree requirement) from an accredited college or university.
- Verification of the availability of sufficient funds to meet all costs while studying at LSU as an F-1 student before the I-20 Certificate of Eligibility will be processed. For the current list of estimated expenses for international students, please visit International Services' website.
- Applicants may be required to submit standardized test scores, depending upon their program requirements. Applicants need to contact the program of interest to inquire about specific test scores needed (GRE or GMAT) and score expectations.
- A satisfactory score on the Test of English as a Foreign Language (TOEFL), the International English Language Testing System (IELTS), or the Pearson's Test of English (PTE) (see "English Proficiency" section).

### **Other Considerations**

Applicants who meet the educational requirements listed in this catalog will be considered for admission, and conversely admission will be denied if requirements listed in this catalog are not met. Admission is not automatically granted when these requirements are met; it may be denied if other factors, in the judgment of university officials, merit denial. Normally the most important decision about admission is that of the admitting department. Students may appeal admission decisions to the departmental faculty and, with departmental approval, the Dean of the Graduate School. Students not meeting a requirement of admissions (such as test scores or GPA) may be considered for admission if department graduate faculty finds that the applicant possesses other skills (e.g., work experience, research experience, etc.) which compensate for the stated requirement.

### **Bologna Accord**

LSU will accept three-year Bologna bachelor's degrees ONLY from the following European countries part of the Bologna system, only if degree was granted after 2012 (the official date of full Bologna agreement implementation): Albania, Andorra, Armenia, Austria, Azerbaijan, Belgium-Flemish and French Communities, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Holy See, Hungary, Iceland, Ireland, Italy, Kazakhstan, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Moldova, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Russian Federation, Serbia, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, the former Yugoslav Republic of Macedonia, Turkey, Ukraine, and the United Kingdom.

The LSU Graduate School will not consider ANY OTHER applicants with three-year bachelor's degrees as eligible for graduate admissions unless the preceding secondary education consisted of 13 years of schooling. Three-year bachelor's degrees from Europe will NOT be considered equivalent to a U.S. bachelor's degree if those institutions do not abide by the Bologna agreement rules and regulations.

### **English Proficiency**

An applicant whose native language is not English and/or who has been educated outside of the U.S. in a country or province where English is not the only official language must demonstrate proof of English proficiency by submitting either a TOEFL, an IELTS, or PTE score before the application is evaluated for admission.

#### TOEFL:

On the TOEFL (Test of English as a Foreign Language), the following minimum scores are required for admission:

- 550 (paper-based exam)
- 79 (internet-based exam)

Information regarding TOEFL may be obtained by visiting the official website at www.toefl.org

#### IELTS:

On the IELTS (International English Language Testing Service), the following minimum score is required for admission:

#### • 6.5

Information about IELTS may be found at www.ielts.org. IELTS is jointly owned by the British Council, IDP: IELTS Australia, and the University of Cambridge ESOL Examinations. Official TOEFL/IELTS scores are those reported directly to LSU by the respective testing service at the request of the student.

#### PTE:

On the PTE (Pearson's Test of English), the following minimum score is required for admission:

#### 59

Applicants may be exempt from the TOEFL/IELTS/PTE requirement if they have completed one of the following:

- A bachelor's degree earned from an accredited U.S. institution;
- A college-level degree showing the completion of post-secondary education in a country where English is the primary official language.

Official transcripts are required showing completion of one of the above before a student can be exempted from the TOEFL/ IELTS/PTE requirement. The Office of Graduate Student Services reserves the right to require a satisfactory TOEFL/IELTS/PTE score from any applicant. All international students who are admitted will be required to take an English placement test prior to registration.

Application deadlines for international students are the same as for all other applicants (see deadline chart); however, because transcripts from foreign universities require special evaluation, prospective international students should begin the application process at least nine to twelve months prior to the semester in which they plan to enroll. When scholastic records and acceptable evidence of English proficiency are not received early enough to determine admissibility for the semester for which the application is made, consideration for a subsequent semester will be made only upon the applicant's written request.

Upon arrival on campus and before registration, international applicants (except citizens of Canada, Australia, New Zealand, Ireland, the United Kingdom, certain Caribbean islands, and Belize) who have been admitted to the Graduate School must take the LSU Comprehensive English Language Test, consisting of the Michigan Test and a writing sample. Students with teaching duties whose tests indicate a deficiency in English will be required to register for appropriate English composition courses with a reduced load of graduate courses.

Act 754 of the Louisiana legislature requires that all instructional personnel teaching one or more undergraduate courses in public universities and colleges be certified as being proficient in spoken English. To comply with Louisiana state mandate, the Graduate School requires oral proficiency evaluation and certification of international graduate students that are Teaching Assistants (TA): TA2 or TA3. A 30-minute, one-on-one, oral interview by Spoken English Program faculty will determine possible exemption from or placement in English 1051, the spoken English course. Any international graduate assistant who has not received a favorable recommendation based on the oral interview or from this speech course may not hold a TA2 or TA3 assistantship.

All international graduate students awarded graduate teaching assistantships must demonstrate proficiency in English. Any international graduate assistant who has not received a favorable recommendation from this speech course may not teach in any capacity.

An international applicant who has completed an undergraduate degree at an accredited U.S. institution must meet regular admission requirements. Before the applicant can be considered, the Graduate School must receive a satisfactory GRE or GMAT score. An international applicant will not be admitted until this information has been received.

Graduate and undergraduate students' (except for exchange students) test includes a written essay section and costs \$25. The cost of the test will be added to your LSU fee bill, and the late test fee is \$50.

Students will be placed in an English composition course, either English 1000, English 1004, or English 1005 based on the results of these tests. Students can be exempted from the English 1004 or exempted from the writing requirements entirely based on their Michigan Exam results, though this is rare. If students are not exempted, they must pass both English 1004 and English 1005 in order to fulfill the university's general education requirement of six hours of English composition courses. Students who are placed in English 1000 must pass that course before they will be eligible to register for English 1004.

Graduate students will not receive a grade on their transcript for these courses. Graduate students will be graded on a pass/fail basis. Graduate students must attain at least an 80% overall course average in order to pass the course. Students must take these courses in successive semesters. Students cannot be exempted from any of these courses that they have failed in a previous semester

## **Application Procedures**

The online application for admission to the Graduate School can be accessed and submitted on the Graduate School's website. Submission of the application processing fee requires a credit or debit card. The non-refundable application processing fee is \$50 for US citizens and permanent residents and \$70 for all other applicants.

International applicants are encouraged to apply at least nine to twelve months in advance of their intended semester of enrollment. International applicants are encouraged to determine course availability before applying for summer entry.

Applicants for graduate admission are responsible for the following:

1. Online Application:

- a. The completed online Application for Admission to Graduate Degree Program.
- b. The required application processing fee and any applicable late fee.
- 2. Submitting the following items to the Graduate School:
  - a. One set of official transcripts of all previous college or university work from each institution attended.

An official transcript bears the official seal of the issuing school.

Photocopies, facsimiles, or transcripts marked "issued to student" are not official.

Transfer credit posted on the records of other institutions is not accepted in lieu of transcripts from the original institution(s).

If the college or university will supply an official transcript in a sealed and signed envelope, the student should obtain the transcript in this manner and submit it unopened.

If the college or university will not send official transcripts to a student, please request that a transcript be sent to:

LSU Office of Graduate Admissions 114 David Boyd Hall Baton Rouge, LA 70803

Transcripts from the LSU main campus need not be submitted.

b. For applicants who are required to submit standardized test scores, LSU's code for GRE and for GMAT reporting is R6373-5. Test information may be obtained from the Graduate School at LSU; graduate schools at most colleges and universities; by visiting the GRE website for more GRE information; or by visiting the GMAT website for more GMAT information. Allow at least six weeks for examination results to reach LSU.

c. A resume with a complete and accurate chronological outline of all previous college-level education.

d. Letters of recommendation as required by the department; these letters may be submitted electronically through the online application.

e. International applicants should also submit

- Degree statements and an official English translation of each foreign document
- Financial statement (refer to the LSU International Services website)
- A satisfactory score on either the TOEFL, IELTS, or PTE (see section "English Proficiency").

3. Many departments have other specific departmental admission requirements. For specific information, consult the individual departments.

Admission is for the semester requested. Those admitted who do not register must make a written request to be reconsidered for admission for a subsequent semester. Request for a delay of admission will only be considered for two subsequent semesters from the original application semester (intersessions excluded). A new application is required for a delay of more than two semesters from the original semester of application (summer included).

### **Non-Degree Admission**

A student who holds a baccalaureate degree but who does not desire to enroll in a degree program in the Graduate School may enroll as a graduate non-matriculating student. Coursework is taken for academic credit, and all rules and regulations for graduate students apply. A student in this category must register for at least one graduate course numbered 4000 or above each semester to maintain graduate status (6 hours is required if taking a full-time course load – see Graduate Classification section under Graduate School Regulations). Courses numbered below 4000 may be taken concurrently with graduate coursework.

Enrollment in courses numbered 6000 and above is limited to a total of six semester hours for graduate students in this classification (a total of six credit hours in this category, not six hours per semester). However, an unlimited number of courses numbered 5999 and below may be taken.

No more than 12 hours of graduate credit taken as a non-matriculating student may be applied toward the requirement for a master's degree.

No more than 12 hours of combined credit transferred from other schools and earned as an LSU extension or non-matriculating student may be applied toward a master's degree at LSU. (See "Transfer of Credit".)

Students wishing to enroll only in courses numbered below 4000 should apply for undergraduate admission through the Office of Enrollment Management.. Students classified as extension students are ineligible to enroll in on-campus courses. Applications for graduate non-degree admission may be completed by accessing the online application. Students applying for graduate non-degree admission must submit one official transcript from the highest degree-granting institution and from each institution where graduate credit was earned or attempted. Transcripts must indicate that the applicant has a 2.50 or better GPA on all undergraduate work completed and a 3.00 or better GPA on all graduate work completed. Transcripts should be mailed directly to the LSU Office of Graduate Admissions, 114 David Boyd Hall, Baton Rouge, LA 70803. International students are only eligible for non-degree admission with the permission of the International Services Office. In addition to the admission requirements listed above, a TOEFL score of at least 550 on the paper-based test or 79 on the Internet-based test, an IELTS score of at least 6.5, or a PTE score of at least 59 must be received before an international student's application is evaluated for admission. Applicants from Canada, Australia, New Zealand, Ireland, certain Caribbean islands, Belize, and the United Kingdom are exempt from the TOEFL, IELTS, or PTE requirement. International students who have received a degree from an accredited institution in the U.S., Canada, Australia, New Zealand, Ireland, certain Caribbean islands, or the United Kingdom are also exempt from taking the TOEFL, IELTS, or PTE. A nonrefundable application fee must be submitted with the application. The application processing fee is \$50 for U.S. citizens and permanent residents and \$70 for all other applications.

Students not regularly admitted to the university may attend classes as auditors, provided they meet all previously mentioned requirements for admission, have written permission from the individual course instructor(s) and the Dean of the Graduate School, and have made the necessary arrangements and paid the required fees. Prospective auditors should initiate registration by obtaining an "Audit Only" form from the Office of the University Registrar.

Regularly enrolled graduate students may also audit courses with consent of the individual instructor(s). Auditors will not receive degree credit and will not be permitted to take a credit examination on audited coursework. However, previously audited courses may be taken for credit. Audited courses do not count in total course loads and are not recorded on official transcripts.

# Transcripts

# **A Certified Translation**

A line by line translation of the original document completed by your academic institution, by a licensed state translator from your country of origin, or a translation completed by a member of the American Translators Association.

# **Official vs Unofficial**

A transcript is considered official if it is sent directly from the applicant's home institution to the Graduate School in one of the following ways:

- In a sealed envelope by postal mail (applicants or departments may hand deliver with sealed copies of their own records. Envelopes which have been opened or appear to have been tampered with will be considered unofficial).
- Electronically via secured vendor services such as links to secure websites and password protected documents or accounts.

\*Please note - unsecured PDF attachments will not be considered official documentation.

\*Applicants who have previously attended LSU A&M (LSU Baton Rouge) do not need to request their LSU Baton Rouge transcript.

## Readmission

### **Readmission to Original Program**

Previously enrolled graduate students who fail to enroll for three or more consecutive semesters (summer term included) must reapply to the Graduate School. Applications for re-entry will be subject to reevaluation under current admission criteria; readmission is not guaranteed.

Official transcripts must be submitted if work has been taken at another institution since the student was last enrolled at LSU. The application deadlines for admission also apply for readmission, as do application processing fees and late fees.

### **Readmission with a Change of Program**

A student wishing to pursue a degree or program other than the one originally sought and who has not enrolled for three or more semesters (including summer terms) must complete application procedures as described above and comply with the requirements for the new program. Acceptance into one program does not guarantee admission into another. The admission decision ultimately rests with the admission committee of the department or interdepartmental program concerned.

# **Admission Appeals**

Appeals are submitted through the Graduate Admissions Office to the Office of the Dean for approval. Types of appeals include:

- Applicant Doesn't Meet Admissions Requirements
- Readmission of Dropped Students
- Lifting Flagged (or blocked) for Registration
- Retroactive Admission

# **Graduate Fees & Financial Aid**

Graduate student expenses, other than those explained below, will vary with the individual. The Board of Supervisors may change fees and costs at any time and without advance notice. Students should check the Office of Budget and Planning's Website.

The following discussion of fees, required minimum registration, and related matters covers items that apply only to graduate students and for which graduate students and undergraduates are treated differently. For all other fees (vehicle registration, audit, student insurance, the Student Health Center, and the like), see "Undergraduate Fees and Expenses"

# **Graduate Fees**

Included in university fees for full-time graduate students are subscriptions to the campus newspaper, The Daily Reveille; the student magazine, Legacy; a copy of Gumbo, the student yearbook; an allocation to Student Government; admission to various athletic events in the spring semester; membership in the LSU Student Union; and reduced golf green fees at the LSU Golf Course.

Student allocations included in university fees are a campus transit fee, a Student Recreational Sports Complex fee, a fee for "The Phone," a KLSU radio fee, and an LSU Tiger TV fee. Additionally, university fees include a nonrefundable registration fee and a Student Health Center fee.

### **Application Processing Fees**

All applications for graduate admission must be paid when completing the online application process. International applicants should consult the section "Admission of International Students" for additional information.

### **Audit Fees**

Fees for auditing courses are in accordance with the regular semester and summer term fees. Fees for students enrolling for combined credit and audit work will be assessed in accordance with total hours scheduled.

### **Residency Status for Tuition Purposes**

Eligibility for classification as a Louisiana resident is determined by the Graduate School in accordance with university regulations and is based on evidence provided on the application for admission. Further detailed information is available in PM 31.

### **Graduation Fees**

- Master's degree fee—\$35; processing fee, \$20
- Doctoral degree fee—\$55; processing fee, \$35
- Doctor of Veterinary Medicine degree fee, \$40
- Duplicate diploma fee—\$20 (charged if a diploma is ordered and student does not graduate at that commencement)
- Replacement diploma fee—\$30

### **Special Research Fees**

- For specially planned research programs arranged through the Office of International Programs, departmental research fees are applicable and vary with the individual program.
- For students in the School of Social Work, an internship fee of \$100 per course is assessed. The fee(s) must be paid by all students enrolled in SW 7008, SW 7502, and SW 7503.
- For students in the School of Veterinary Medicine, a microscope fee of \$40 per semester is assessed to each student in Years I and II of the professional curriculum. Regularly admitted students are not assessed fees in the summer (regardless of the elective blocks taken in Year III and IV). Regularly admitted students accepted from contract states pay the same fees as Louisiana residents, with respective states paying an additional increment as specified by contract.

### **Tuition and Required Fees**

Tuition and required fees are subject to change. For current figures, please visit the website of the Office of Budget and Planning. For information about room rent, dining plans, refunds, and other special fees, see "Undergraduate Fees and Expenses."

## **Financial Aid**

The university offers financial assistance to graduate students through a variety of programs, including fellowships, assistantships, internships, student jobs, and loans. Since these programs are administered by separate offices, a student interested in applying should contact the appropriate office for more detailed information.

Students should work with their financial aid officer to carefully study the impact of any employment or award on their eligibility for student loans.

### **Fellowships and Scholarships**

The Graduate School offers a number of fellowships and scholarships to exceptional students. Most students can expect to receive some type of aid throughout their graduate careers. In some cases, recipients are required to have completed a minimum amount of graduate work prior to receiving an award. All such assistance is awarded on the basis of the individual's academic achievements. Interested students should contact the graduate advisor of the department in which they plan to study.

- Graduate Enrichment Funds Superior graduate students awarded departmental assistantships and fellowships in selected departments may receive a monetary enhancement to their departmental assistantship or fellowship. Interested students should contact the graduate advisor of the department in which they plan to study.
- Graduate School Dissertation Fellowships Dissertation fellowships are available to exceptional doctoral students who will begin their final year of study. A maximum one-year (9 month) stipend of \$18,000 is awarded. Resident and nonresident tuition are exempted. The recipient will be responsible for paying the required university fees.
- Applicants must be able to demonstrate that there is a high probability for completion of the dissertation during the fellowship year. Dissertation fellowships are available only to full-time students. For information on application procedures that entail departmental nomination, please visit the Financial Assistance section of the Graduate School web page. Interested students should contact the graduate advisor of the department in which they plan to study.
- Board of Regents Graduate Fellowship Program (PhD and MFA) The Louisiana Educational Quality Support Fund provides Board of Regents Graduate Fellowships for exceptionally qualified graduate students in selected professional programs. These awards range from \$14,000 to \$30,000+ per year for up to four years. Resident and nonresident tuition are exempted. Recipients are responsible for paying required university fees. Academic departments eligible for these awards vary from year to year. Most major areas award these fellowships annually, including humanities, social sciences, basic sciences, arts, design, education, agriculture, and engineering.
- Applications must be submitted to the candidate's department and must include scores on the verbal and quantitative portions of the Graduate Record Examination (or GMAT scores if appropriate), an official transcript of all grade point averages on all college work, a one-page narrative of educational goals, and three letters of recommendation. Interested students should contact the graduate advisor of the department in which they plan to study.
- **Graduate School Tuition Awards** The Graduate School may award a limited number of tuition exemptions to incoming graduate students from underrepresented groups. These tuition awards provide for an exemption from either the tuition or both the tuition and nonresident fees for up to two years. Recipients are responsible for paying required university fees. Preference will be given to African Americans and students from Latin American countries. Students must be regularly admitted to a graduate program at LSU and be nominated by their department. Interested students should contact the graduate advisor of the department in which they plan to study.
- **Prestigious Fellowship Enhancement Award** These awards will be granted to select recipients of a prestigious national or international fellowship in order to make these prestigious fellowships more competitive with the graduate assistantships on campus. The program will also promote an entrepreneurial spirit among existing graduate students who may wish to apply for a national or international fellowship. The Prestigious Fellowship Enhancement Awards should be in one of the following three categories: 1) tuition awards (up to \$10,000 per year), 2) non-resident fee awards (up to \$20,000 per year}, or 3) research awards (up to \$5,000 per year). For information on application procedures, please visit the Graduate School's website.
- Huel D. Perkins Diversity Fellowships These awards are intended to support the LSU and national goals of increasing the numbers of historically under-represented groups in graduate schools. Students must be regularly admitted to a graduate program in good standing with at least a 3.0 GPA and be nominated by their department. Interested students should contact the graduate advisor of the department in which they plan to study.

### Assistantships

More than 2,000 teaching, research, and service assistantships are awarded annually. All communication regarding graduate assistantships should be directed to the chair of the appropriate department. Applications and supporting credentials are accepted at all times, but priority for graduate assistantships beginning in the fall semester is given to applicants who submit their materials by early January. Students who accept assistantships before April 15 may be free to resign in order to accept another offer up to that date. An acceptance given or left in force after April 15 is a commitment not to accept another appointment without first obtaining formal release from the prior commitment.

A graduate assistantship is intended to be supportive of the student's educational experience by relating to the graduate program in which the student is enrolled.

**Eligibility Requirements** • Graduate students with acceptable academic records may be appointed to graduate assistantships. A student admitted on probation may not be appointed to a graduate assistantship until he or she achieves good standing. A graduate student placed on academic probation by the Graduate School for failing to make satisfactory progress may not be appointed to a graduate assistantship unless the student's cumulative/semester grade point average is at least 3.00.

Details and additional information regarding eligibility for a graduate assistantship may be found in PS-21—available online, in the appendices of this chapter, from the Graduate School, and in departmental offices.

**Stipends** • Graduate assistant stipend levels vary widely depending on the department and assigned duties. Assigned duties may include research, teaching, and/or service. Graduate assistantship appointments may also be for one-third or one-quarter time, with an appropriate adjustment in the stipend. Appointments for more than one-half time require special justification. Although most appointments are made on an academic-year basis, assistantships are available in certain departments during the summer months, with an appropriate adjustment in the stipend. Fiscal year appointments are also available.

# **Federal Financial Aid Programs**

Please see the section entitled "Financial Aid and Scholarships" in this General Catalog.

# **Graduate School Regulations**

The following discussion of general Graduate School regulations should be read in conjunction with "Requirements for Advanced Degrees." Regulations common to graduate and undergraduate students (the Code of Conduct, grade appeals, etc.) are covered in "Academic Regulations."

Graduate School requirements are minimal, and in many cases, are exceeded by those of individual departments. Statements of specific departmental requirements for degrees are included in the departmental section of this chapter. Most departments also have brochures describing their programs and requirements in detail.

## **Graduate Student Classification**

In order to be classified as a graduate student and to be considered full-time, students must maintain registration in a minimum of 9 semester hours in the fall or spring semester (with a minimum of six hours of graduate credit coursework), or a minimum of 6 semester hours in a summer term or online module (with a minimum of 3 hours of graduate credit coursework). At least one half of the registered credit for part-time graduate students must be in graduate credit coursework.

# **Program Change**

Graduate students must assume full responsibility for knowledge of Graduate School policies and departmental requirements concerning their individual degree programs. Advances in knowledge and changes in methodology at times require alterations in

degree programs. Therefore, graduate students should be aware of the current regulations and requirements of the Graduate School and of their departments at all times. Current regulations and requirements take precedence over any previously promulgated policies.

Between LSU General Catalog issues, notices of changes will be available from the Graduate School and from each department.

# **Graduate Credit**

A student may receive graduate credit only for courses taught by members of the graduate faculty or other persons approved in advance by the Dean of the Graduate School. Except as noted, a student may receive graduate credit only for work taken while officially enrolled as a graduate student.

Any student dropped from a graduate program because of unsatisfactory performance will not be permitted to take courses for credit toward a graduate degree beyond the semester in which the student is dropped.

Graduate students may not take credit examinations in graduate-level courses.

### Graduate Credit in Law

Students registered in the Graduate School may receive graduate credit for certain courses offered by the Hebert Law Center if the courses have been approved in advance by the Hebert Law Center and the Dean of the Graduate School. Students should submit a written petition to the Graduate School for such approval. They must obtain permission from the vice chancellor of the Paul M. Hebert Law Center in order to register for these courses.

# **Dual Degree Programs**

Students interested in these programs are encouraged to visit the LSU LAW Dual Degree Programs site.

- JD/CL-MBA
- JD/CL-MMC
- JD/CL-MPA
- JD/CL-MS in Finance

LSU and the Paul M. Hebert Law Center offer several dual degree programs, allowing a student to earn both the JD/CL and a master's degree.

Students enrolling in the dual degree programs must be admitted separately to the LSU Graduate School and the Law Center. Students should consult with the admissions office of each institution prior to enrollment.

Each program has specific requirements, which can be found by visiting the websites listed above.

Students successfully completing one of the programs listed above will receive two degrees, a JD/CL awarded by LSU's Hebert Law Center and a master's degree awarded by LSU.

Students wishing to pursue dual degrees must complete and submit the "Request for Dual Degree" form. Information regarding available dual degree programs is available on the departmental sites.

### **Transfer of Credit**

Hours transferred may not exceed one-half of the total semester hours of graduate coursework (thesis hours excepted) required for the student's degree program. For example, a maximum of 12 hours may be transferred in a master's program requiring 24 hours of coursework.

A maximum of 12 semester hours of credit earned as an LSU extension or non-matriculating student may, in some cases, be used in a master's degree program if approved by the department chair and the Dean of the Graduate School. This includes a maximum of six hours at the 6000-level and above for LSU extension or non-matriculating credit.

A maximum of 12 hours of transfer credit from other schools may, in some cases, be used in a master's degree program if approved by the department chair and the Dean of the Graduate School. Only six hours applied toward a previous master's degree may be applied toward a second master's degree (see "Second Master's Degree").

To petition for acceptance of these credits, the student must be currently enrolled, must have completed at least nine hours of graduate coursework in a degree program at LSU, and must be in good academic standing.

Transfer credit from other accredited schools must have been earned for graduate credit. This coursework must be judged appropriate to the student's program by the graduate faculty of the major department, must have been taught by a professor whose credentials are comparable to those of graduate faculty at LSU, and must, in terms of time invested, be comparable to graduate courses at LSU. Transfer work may not be used to fulfill the master's program requirement that at least one-half of the minimum required credit be in courses at or above the 7000-level. Coursework completed at institutions outside the U.S. is not accepted for transfer credit toward a master's degree at LSU.

No more than 12 hours of combined credit transferred from other schools and earned as a LSU extension or nonmatriculating student may be applied toward a master's degree at LSU. Credit earned as a LSU extension or nonmatriculating student or transferred from another institution must be for coursework in which the student earned a grade in the range of "A" or "B." A "B-" is permitted so long as the LSU cumulative GPA is above a 3.00. Courses in which a grade in the "C" range was earned will not be accepted for transfer into a master's degree program.

Transfer work must have been completed within five years of the time the student is eligible to petition. Once transfer credit is approved, it is valid as long as the master's degree is completed within the five-year time limit or the transfer work is within five years of degree completion.

Graduate work transferred from other institutions may be applied toward degree requirements, but the grades earned will not be computed in the LSU graduate average nor will transfer work appear on the official transcript. Graduate coursework taken at other campuses within LSU is not considered transfer credit, and any number of hours may be applied toward a degree if approved by the chair of the student's department on this campus.

### **Graduate Credit for LSU Seniors**

Refer within the chapter, "Programs and Courses: General Information," in this catalog for additional information on enrollment for undergraduate credit in the 4000- or 7000-level courses.

### **Correspondence Study**

No graduate credit is allowed for work done by correspondence study at this or any other university.

### **Eligibility of Faculty and Staff for Graduate Degrees**

The university regulations govern LSU employees' eligibility to work toward graduate degrees. A faculty member above the rank of instructor may not work toward a graduate degree at this university. Other employees who, in the opinion of the Graduate Council, are of equivalent status may not work toward graduate degrees. Non-faculty, professional staff, and/or administrators

may pursue master's degrees; only those who do not hold positions where there is a potential conflict of interest will be permitted to pursue doctoral degrees.

If an employee serving as a professional staff member and/or administrator wishes to pursue a doctoral degree, the employee, his or her immediate supervisor, and the chair of the department in which he or she wishes to pursue the degree must submit to the Dean of the Graduate School statements outlining the employee's job responsibilities and providing an analysis of the independence of the employee's official duties from the department in which doctoral work is to be taken. The Graduate Council will review these statements and make a recommendation through official channels to the chancellor.

# Grades

### **Graduate Grading System**

Grades in the Graduate School have the following meanings:

- Marks carrying advanced degree credit are "A," "B," "C" (up to, but no more than six hours); "S" (satisfactory); and "P" (pass).
- Marks carrying no credit for advanced degrees are "D" (poor), "F" (fail), "I" (incomplete), "W" (withdrawn), "U" (unsatisfactory), and "NC" (no credit).
- Cumulative grade point average is the average based only on graded graduate work.
- Semester grade point average is the average based on graded graduate and undergraduate work.
- For purposes of probation, continuation/dismissal, and graduation, the LSU cumulative GPA will be used with a minimum of 3.00.
- For purposes of transfer of credit, a "B-" is permitted so long as the LSU cumulative GPA is above a 3.00.
- For use towards graduation, there is no limit on the number of courses completed with a "B-", though a 3.00 LSU GPA is required for graduation. There is no change to the limit of six hours with a "C (+/-)."

### Plus/Minus Grading and Regulations Applicable on a Course-by-Course Basis

All regulations applicable on a course-by-course basis and requiring a specific letter grade are interpreted to mean a specific *letter grade range*. For example, if a student must achieve a C or better in one course as a prerequisite for another course, the student must achieve a final grade in the C range (i.e. C+, C, or C-) or better.

"I" Grade: An "I" grade indicates that course performance was satisfactory, but because of circumstances beyond the student's control, all requirements were not met. Authorization from the Dean of the Graduate School is not required to assign an "I" grade to a graduate student.

An "I" grade should never be given to enable a student to do additional work to bring up a deficient grade. A task should not be assigned to a class that will take longer than a semester to complete, thus causing everyone in the class to get an "I" grade. An "I" grade may not be given for a course taken in the semester in which the student graduates if that course is listed on the application for degree or if changing the "I" grade to an "F" would result in the student's LSU cumulative average being less than 3.00. An "I" grade should never be assigned for thesis/dissertation research. "S" (satisfactory) and "U" (unsatisfactory) grades are given for thesis (8000) and dissertation (9000) research courses up to and including the semester the student graduates.

An "I" grade is valid only until the final day of classes in the next regular semester (fall or spring), whether or not the student is enrolled. For online degree programs, the "I" grade is valid until the final day of classes within the following online term. For on campus degree programs, "I" grades received in the spring semester or the summer term are valid until the end of classes in the fall semester. "I" grades received in the fall semester are valid until the final day of classes in the spring semester. For online degree programs, an "I" grade received during the First Spring term is valid until the final day of classes in the Second Spring term. There will be no extension of time. The responsibility for changing an "I" grade rests both with the student and the faculty member concerned. The faculty member's failure to submit a "Grade Correction Report" to change the "I" grade by the final day of class for the next regular semester will result in the "I" grade becoming a permanent "F" grade.

Unusual circumstances that preclude a student from completion of course requirements may—at the discretion of the Dean of the Graduate School —permit assignment of a permanent "I" grade.

Unusual circumstances might include, but would not be limited to, withdrawal of the student from the university because of prolonged medical problems, or death or resignation of the faculty member concerned, and the absence of another faculty member to supervise the unfinished work. The student must initiate the petition for a permanent "I" grade. This petition must be accompanied by a letter of justification from the faculty member concerned, if possible. The petition must also be endorsed by the chair of the student's department before it is submitted to the Dean of the Graduate School.

"W" grade: A "W" grade indicates that a course has been dropped between the dates specified on the academic calendar. In extraordinary cases, the Dean of the Graduate School may authorize a resignation and/or course drop after the last date specified.

The policies and procedures of the university governing grade appeals are described in the section concerning university Academic Regulations.

#### **Pass-Fail Option**

With approval of the student's major professor, department chair, instructor of the course involved, and the Dean of the Graduate School, a graduate student may register on a pass-fail basis for courses not included in the major or minor requirements. The deadline for changing from pass-fail grading to letter grading, or vice versa, is the last day for adding courses for credit.

If the student's major department agrees, graduate courses passed with a grade of "P" may be offered for degree credit, but the grade will not be considered in computing the grade point average. For graduate-credit courses, a grade of "P" will be assigned only if the work is of at least "B-" quality. A grade of "F" in a pass-fail course will be treated as any other "F." Some departments have designated certain research and seminar courses to be taught on a pass-fail basis. All students enrolled in these courses will be graded in this manner.

#### **Grade Requirements**

**Good Standing**: Graduate students are considered to be in good academic standing, (making satisfactory academic progress), if they maintain a 3.00 LSU cumulative grade point average on all graduate coursework taken within the university (all LSU campuses) and a 3.00 semester average on all coursework (undergraduate and graduate), and earn a grade of "S" in research.

Students who are not in good academic standing may not take any graduate milestone exams. Milestone exams are defined by the Graduate School as the General Defense, Final Doctoral Defense, Master's Thesis Defense, and the Master's Non-Thesis Defense. This rule does not apply to departmental exams unless stipulated by the department.

**Probation and Dismissal**: A student whose cumulative LSU average is below 3.00 will be placed on probation, except that a student whose cumulative average is as low as 2.75 may be dropped from the Graduate School without having a probationary period. For these purposes, a summer term is counted the same as a regular semester. A student already on probation whose cumulative average is below 3.00 will be dropped from the Graduate School. A student already on probation whose placed on probation. A student receiving a second "U" in research may be dropped from the Graduate School. Rules governing students admitted on probation are provided in "Admission to Graduate Study" in this chapter. The grades recorded determine the student's academic status, even if the student changes to a different graduate degree program.

Students who have been dropped from a graduate degree program and are ineligible to continue in the Graduate School may not reapply as non-degree students.

Applicants admitted on probation and students placed on probation may not be appointed to a graduate assistantship. Refer to PS-21 for further details concerning assistantships and students on probation.

Academic Dishonesty: Academic integrity and honesty must be fundamental qualities of any graduate student's program, and a graduate student's conduct must be above reproach. Academic dishonesty undermines the entire academic enterprise. As a result, it cannot and will not be tolerated. It is the responsibility of all students to familiarize themselves with the Code of Student Conduct and other university rules and regulations governing student conduct and activities.

The Office of the Vice President for Student Life has administrative responsibility for coordinating all university disciplinary procedures and practices.

**Graduation**: To receive a graduate degree, students must be enrolled for the semester and have at least a 3.00 LSU cumulative average on all graduate coursework taken that is applicable to the degree program and on all graduate coursework taken while registered in the Graduate School. "S" and "P" grades are not considered in determining whether this minimum level of performance has been achieved. A maximum of six credit hours of coursework with a grade in the "C" range (C+ to C-) may be counted toward degree requirements.

# **Graduate Registration**

Specific registration dates for each semester or summer term are listed on the academic calendar. Registration procedures are published in the semester schedule of classes at the website of the University Registrar.

#### **Registration of Employed Persons**

The sum of the fraction of full-time registration and the fraction of full-time employment of nonacademic LSU employees should not exceed one and one-half. Written permission to exceed this registration/employment sum must be obtained from the employee's supervisor and academic advisory committee.

#### "Degree Only" Registration

"Degree only" registration is only allowed for students who have met all degree requirements in the previous semester: final defense reports have been received by the Graduate School and approval of all format corrections requested by the document editor by close of business on the last date to add classes for the semester. Non-thesis students may also register "degree only," provided all degree requirements are met in a previous semester and final defense reports have been received by the Graduate School. All fees for Degree Only registration must be completed by close of business on the last date to add classes for the semester of graduation.

#### **Registration of Candidates for Degrees**

Students expecting to receive their degrees in the current semester must be registered for coursework (if in a non-thesis degree program) or thesis/dissertation research hours (if writing a thesis or dissertation) unless they qualify to be registered "degree only" (see "Degree Only" Registration"). Eligible students must submit an "Application for Degree" by the published deadline.

# **Course Loads**

Any graduate student who is utilizing university facilities and/or faculty time must register for an appropriate course load. Graduate students engaged in writing or defending theses or dissertations are expected to register for research hours

commensurate with the amount of university resources (faculty time, equipment, library facilities, and/or office space) to be utilized that semester. There is a continuous registration requirement for doctoral students who have passed the general defense.

#### Full-time Study in Graduate School

In order to be classified as a graduate student and to be considered full-time, students must maintain registration in a minimum of 9 semester hours in the fall or spring semester (with a minimum of six hours for graduate credit coursework), or a minimum of 6 semester hours in a summer term or online module (a minimum of 3 hours for graduate credit coursework). At least one half of the registered credit for part-time graduate students must be in graduate credit coursework.

Graduate students may, with prior written approval of the Dean of the Graduate School, receive credit for work taken concurrently at another university. For example, LSU has a cooperative registration program with Southern University and some cooperative graduate programs with other universities in Louisiana.

#### **Course Loads of Graduate Assistants**

Graduate students holding graduate assistantship appointments must meet certain minimum registration requirements. Such students are expected to register for a full load—nine hours in the spring and fall, at least six of which must be at the graduate level, and six hours in the summer, at least three of which must be at the graduate level—each semester until all degree requirements are completed.

# **Course Loads of Graduate Students Taking Examinations or Doing a Defense**

Students must be registered for a minimum of one to three semester hours of credit during any semester in which they are taking the master's final defense or doctoral general, or final defense, including the qualifying examinations required by some departments. Masters students who are taking their master's thesis defense must register for one or more thesis credit hours. Students who are non-thesis and taking a final defense must be enrolled in at least one credit hour. Doctoral students who have completed the general defense should see "Continuous Registration Requirement" under "Requirements for Advanced Degrees" in this chapter.

#### **Course Loads of Full-Time Faculty and Other Academic Employees**

A member of the faculty holding the rank of assistant professor or above may register for a maximum of four semester hours of credit each semester or summer term provided written approval has been given by the department chair and the dean of the college or school in which the faculty member is employed.

Full-time instructors and associates may register for a maximum of four semester hours of coursework at the 7000-level or six semester hours (four during summer term) at the 4000-level.

#### **Course Loads of Part-Time Faculty and Staff**

Persons employed by the university half-time or less may register as full-time graduate students. Persons employed more than half-time by the university should not register as full-time graduate students. The maximum load permitted will depend on the extent of employment. Written permission to register as a full-time student must be obtained from the employee's supervisor and academic advisory committee. Audits are not counted in the permitted load.

# **Adding or Dropping Courses**

A course may be added or dropped only in accordance with the dates indicated on the academic calendar. During the drop/add period, the student will initiate the action using the myLSU online registration system. A change from credit to audit is treated as a drop and add action, but it must be approved by the Graduate School by the published deadline. See "Auditing Courses" below for additional information about auditing courses.

# **Auditing Courses**

Regularly enrolled graduate students may audit courses with the consent of individual instructors. Auditors will not receive degree credit for courses audited, nor will they later be permitted to take a credit examination on work audited. However, courses previously audited may be taken for credit later. Audited courses do not count in total course loads and are not recorded on official transcripts. Request to audit courses must be submitted on or before the last day to add courses for credit.

# **Changing Degree Programs**

A student in one degree program who wishes to change to another degree program, or a student who completes one degree and wishes to pursue another degree, must obtain approval of the current department, new department, and the Graduate School. A "Request for Change of Department" form may be obtained from the Graduate School website.

Students wishing to pursue a different degree in the same department must obtain approval from the department. The department must notify the Graduate School in writing of such a change.

Requests must be submitted during a regular semester or summer term (not between semesters) in order to be effective for the next semester of enrollment. Only one request for Change of Degree Program will be processed per semester.

# **Resignation from the University**

Dropping an entire course load constitutes resignation from the university for that semester. A graduate student who wishes to resign must first secure approval of the Dean of the Graduate School. A resignation form must be completed within 10 days of the date approved by the dean, and in no case later than the date shown on the academic calendar as the final date for resigning from the university. Completion of resignation involves clearance through certain administrative divisions of the university, as shown on the resignation form provided by the Graduate School. A student who abandons courses without resigning will receive a grade of "F" in each course.

# Appeals

TYPES OF APPEAL	OFFICE RESPONSIBLE FOR APPEAL REVIEW
Add to Graduation List	Appeals are submitted through the Graduate
• Change in Degree Program (Second Degree Program)	School Academic Services, Professional Development and Diversity Office to the Office of the Dean for approval.
Continuous Registration	

•	Degree Requirements	
•	Program of Study	
•	Permanent Incomplete	
•	Readmit on Probation	
•	Residence Requirement	
•	Seven-Year Time Limit	
•	Undergraduate Taking Graduate Level Courses	
•	Grade Appeal Grade Change	Appeals follow procedures found in the General Catalog under the Grade Appeals section in Academic Regulations.
•	Retroactive Actions (includes drops, adds, change to audit, change to pass/fail, section change, resignation, remove "W" grade)	Appeals are submitted through the student's department and dean of the college's office before being routed through the Graduate School Academic Services, Professional Development and Diversity Office to the Office of the Dean for approval.
•	Awards Issues Assistantship/Fellowship Issues Other Petitions for Dean's Office	Appeals are submitted to the Office of the Dean for approval.

# **Inter-Institutional Cooperation**

# Academic Common Market

Louisiana participates with 14 other southern states in the Academic Common Market, an interstate agreement for sharing uncommon programs. Residents of these states who are accepted for admission into selected out-of-state programs can enroll on an in-state tuition basis.

To enroll as Academic Common Market students, applicants must be accepted for admission into a program to which their state has made arrangements to send its students, and obtain certification of residency from the Common Market Coordinator in their home state. Applications for admission should be made directly to the institution offering the program. Additional information about the Academic Common Market and programs available at in-state tuition rates for residents of Louisiana can be obtained from the Office of the University Registrar.

# **Cooperative Program with Southern University**

See the section "LSU-Southern University Cooperative Programs" in the LSU General Catalog for information about this program.

### **Multi-Campus Registration**

With appropriate approval, LSU graduate students may take courses for resident credit at the LSU Health Sciences Center in New Orleans. Fees paid at LSU will be for the number of hours to be taken at LSU plus the number of hours to be taken at one of the other campuses in the university system.

An application for multi-campus registration may be obtained from the LSU Office of the University Registrar. In order to prevent delay in registration, this form should be submitted at least two weeks before the scheduled time of registration. Approval for multi-campus registration must be obtained from the student's major department, the LSU Graduate School, the LSU Office of the University Registrar, the dean of the other campus' college, and registrar of the other campus.

# **Cooperative Graduate Programs**

Several of LSU's graduate degree programs have specific cooperation with other universities in Louisiana. These programs include applied statistics, economics, education, oceanography and coastal sciences, physics, psychology, and systems science. Details and additional information may be obtained from the graduate coordinator in the appropriate area.

# **Foreign Exchange Programs**

In order to provide students with a variety of culturally enriching experiences, the Graduate School has student exchange programs with foreign universities. Additional opportunities for study abroad are available through other campus offices. For more information, contact the Graduate School.

# **Graduate Certificates**

Graduate Certificates are awarded for completion of a set of graduate courses in curricula approved by the Louisiana Board of Regents and individually validated by a graduate faculty advisory committee. LSU awards the certificate at a regular graduation ceremony with an official LSU diploma and is recorded in the graduate transcript. Certificates can be earned by regularly enrolled, degree-seeking students, as well as non-traditional, certificate-only students. Graduate certificates provide a shortened, condensed, and focused course of study that often draws expertise from multiple academic units. These credentials frequently lead to job-related professional licensure or certification, provide needed job-related expertise, or are focused on a timely area of intellectual discourse.

# Admission

Certificate-only students use the same procedures as those for degree programs. Degree-seeking students already admitted to the Graduate School need to contact the certificate committee for instructions on participation in the program.

Regular admission is awarded to applicants who intend to pursue a certificate program and meet the following requirements:

- A bachelor's degree from an accredited U.S. institution or the equivalent from a foreign institution.
- A grade point average of at least 3.00 on all undergraduate work (or last half-degree requirement) and a 3.00 GPA or better on any graduate work already completed.

- Applicants may be required to submit standardized test scores, depending upon their program requirements. Applicants need to contact the program of interest to inquire about specific test scores needed (GRE or GMAT) and score expectations.
- Acceptance by the graduate faculty in the applicant's area of study. Consult individual departments for additional admission requirements.
- A resume with a complete and accurate chronological outline of all previous college-level education.
- Complete application procedures are described below under "Application Procedure."
- An applicant whose native language is not English and/or who has been educated outside of the U.S. in a country or province where English is not the only official language must demonstrate proof of English proficiency by submitting either a TOEFL, an IELTS, or PTE score before the application is evaluated for admission.

The above requirements may not be required for all certificate programs. Applicants should check with individual departments

### Fees and Financial Aid

Certificate-only students pay the same tuition and fees as degree-seeking students. Students should contact Financial Aid and Scholarships for information on student loans. Certificate-only students are not eligible for assistantships, awards, or fellowships.

### **Transfer of Credit**

Graduate credit from another institution may be transferred and applied towards the certificate at the discretion of the certificate advisory committee but cannot be more than half of the required coursework. Hours transferred may not exceed one-half of the total semester hours of graduate coursework required for the student's certificate program. Credit earned as an LSU extension or non-matriculating student or transferred from another institution must be for coursework in which the student earned a grade in the range of "A" or "B." A "B-" is permitted so long as the cumulative GPA is above a 3.00. Courses, in which a grade of "C" was earned, will not be accepted for transfer into a master's degree program. Course work completed at institutions outside the U.S. is not accepted for transfer credit toward a master's degree at LSU.

#### **Undergraduate Students**

Exceptional undergraduate students may earn graduate credit towards a graduate certificate. (See the Programs and Courses: General Information section on "Graduate Credit for LSU Seniors".)

#### Grades

A certificate can only be earned with courses where grades are in the "A" and "B" range, or a "P" in pass-fail courses. Some certificates may allow up to three hours of "C" range to count towards the degree, but the LSU cumulative GPA must be a 3.0 or above. A 3.0 is required to remain in good academic standing.

#### **Probation and Dismissal**

The same rules apply to certificate-only students as to degree-seeking students. (See Probation and Dismissal in this section.)

# **Total Hours Required**

The total number of credit hours for a graduate certificate is in the range of 12-18 semester credit hours. Total hours and specific coursework required are found in the catalog description of the certificate program. At least one-half of the minimum required

coursework credit in the student's certificate program must be in courses at or above the 7000-level. Transfer work from other institutions is not counted towards meeting the 7000-level requirement.

# **Application for Certificate**

A student expecting to complete the requirements for the certificate must file an application for graduation with the Graduate School, signed by the chair of the faculty advisory committee, by the normal Application for Degree deadline of each semester or summer term, which can be found in the academic calendar.

#### **Time Limits**

Completion of the certificate must come within three years of admission unless the advisory committee petitions for a one-year extension.

# Use of Course Work for Multiple Graduate Credentials

The use of credit earned towards a certificate may be applied to a master's or doctoral degree but only with the explicit approval of the department offering the degree.

#### **Advisory Committees**

Certificate programs are managed by faculty committees appointed by the departmental chair when curricula are largely within a single academic program, appointed by the college dean when curricula are largely within a single college, or appointed by the Dean of the Graduate School when curricula are spread across multiple colleges.

# **Requirements for Advanced Degrees**

Satisfaction of the minimum requirements of the Graduate School, as stipulated in this publication, does not relieve graduate students of the responsibility for satisfying any additional requirements deemed appropriate by the graduate faculty of the degree programs in which they are enrolled.

# **Requirements for the Master's Degree**

Programs in liberal arts and social sciences ordinarily lead to the MA degree. Programs in other fields usually lead to the MS degree or to specialized master's degrees.

# **Minimum Graduate Student Registration**

Graduate students engaged in the writing of theses or dissertations are expected to register for research hours commensurate with the amount of university resources—faculty time, equipment, library facilities, and/or office space—to be used that semester. Out-of-town students are also expected to register for research hours if they are receiving any faculty advice or direction.

In addition, masters candidates who are taking a master's thesis defense must register for one or more thesis credit hours. Students who are non-thesis and taking a final comprehensive defense must be enrolled in at least one credit hour.

### **Hours Required**

The minimum requirement is 30 semester hours of graduate work, 24 hours of which must be in coursework and six hours in thesis research. In programs not requiring a thesis, the minimum requirement is normally 36 semester hours. In programs requiring a thesis, thesis hours are not considered as 7000-level coursework and cannot be counted towards the requirements for a non-thesis degree. At least one-half of the minimum required credit in the student's master's program, whether thesis or non-thesis, must be in courses at or above the 7000-level. Students should consult the department graduate advisor to determine the required number of hours for their degree programs.

Transfer work from other institutions is not counted towards meeting the 7000-level requirement. As stated above, thesis credit hours will not be counted as work above the 7000-level. A student's efforts will be concentrated in one major field, but a department may require a minor of nine or more semester hours of credit in one or more related fields.

A maximum of 12 semester hours of transfer credit from other schools and/or credit taken while classified as a LSU extension or non-matriculating student may, in some cases, be used in a master's degree program if approved by the department chair and the Dean of the Graduate School. See "Transfer of Credit" under "Graduate School Regulations" in this section.

# **Application for Degree**

Early in each semester or summer term, there is a deadline for submitting the "Master's Application for Degree" to the Graduate School. Master's candidates are required to submit the "Application for Degree" forms by the semester's calendar deadline. On these forms, a student lists all coursework taken that applies toward the degree. Submission of the application carries with it the implication that the student intends to graduate in the semester stipulated. If circumstances prevent graduation, a "Master's Application for Degree UPDATE" form must be submitted to the Graduate School by the designated application for degree deadline for the next semester in which the student plans to graduate.

Masters students who have submitted graduation paperwork indicating a thesis track are not allowed to switch to a non-thesis status in the semester of graduation. Accordingly, master's students who have submitted graduation paperwork indicating a non-thesis track are not allowed to switch to a thesis status in the semester of graduation.

# **Time Limit**

Programs for master's degrees must be completed within five years from entrance into a degree program. Credit for individual courses taken at LSU more than five years before the termination of a program may be revalidated by the student's graduate committee through an examination. This examination may be oral, written, or both oral and written, depending on the requirements of the department concerned. The documentation of such an examination must be signed by members of the committee and the department's graduate advisor and reported to the Graduate School on the "Master's Course Revalidation form" before the request for the student's final examination will be approved. Students are responsible for verifying if their department has a revalidation policy. No more than 50 percent of the courses in a student's program may be revalidated and counted toward the degree requirements. For regulations regarding time limits and eligibility of transfer work, see "Transfer of Credit" under "Graduate School Regulations".

#### The Thesis and the Master's Committee

In most departments, the preparation of a thesis is an important element in the program leading to the master's degree. The master's thesis should demonstrate capacity for research, originality of thought, and facility in organizing materials. The thesis must be acceptable in subject matter and exhibit creditable literary workmanship. At least six semester hours of thesis credit are required for the master's degree with the thesis option. For additional information concerning thesis preparation, consult the electronic thesis and dissertation guidelines available on the Graduate School website.

Final acceptance of the master's thesis rests with a committee of three or more members of the graduate faculty nominated by the chair of the major department and appointed by the Dean of the Graduate School. See the "Graduate Faculty" section of this chapter for definitions of full, associate, and affiliate members of the graduate faculty.

The major professor, who must be from the major department, is designated as chair or co-chair of this committee. If either an adjunct or a non-tenure-track faculty member is the major professor, a full-time tenured or tenure-track graduate faculty member must co-chair the committee. Other committee members may be from the major department or from other pertinent departments. If there is an external minor, one committee member must represent the minor department. Both thesis and non-thesis committees must include at least one full member of the graduate faculty, and at least one-half of the committee's graduate faculty members must be full-time tenured or tenure-track faculty members at LSU. Any additions to or changes in the makeup of this committee must be approved in advance by the Dean of the Graduate School. The Dean of the Graduate School may serve as a member of any committee or may appoint additional members.

#### **Non-thesis Programs**

Some departments offer optional non-thesis programs for the master's degree. Departmental websites indicate whether this option is available.

#### **Comprehensive Final Defense**

Candidates for master's degrees in most programs are required to pass a comprehensive final defense. This defense may be oral, written, or both oral and written, depending on the requirements of the department concerned. In non-thesis programs, greater weight is ordinarily given to this defense, and it will probably be broader in scope than the defense given to a student who completes a thesis.

At least three weeks prior to the time this defense is to be given (and by the current semester deadline if the student is a degree candidate), the student's department should submit to the Graduate School a "Request for Final Exam" form. Normally, a candidate for the master's degree will take the final defense during the semester in which he or she plans to graduate. If a student wishes to take the final defense at an earlier date, the student's committee must furnish the Dean of the Graduate School with a sound academic reason for doing so. Exams may be taken anytime the university is open for business. To be eligible to take the final defense, the student must be in good academic standing. Graduate students are considered to be in good academic standing, (making satisfactory academic progress), if they maintain a 3.00 cumulative grade point average on all graduate coursework taken within the university (all LSU campuses) and a 3.00 semester average on all coursework (undergraduate and graduate), and earn a grade of "S" in research. Students who are not in good academic standing may not take any graduate milestone exams. Milestone exams are defined by the Graduate School as the General Defense, Final Doctoral Defense, Master's Thesis Defense, and the Master's Non-Thesis Defense. This rule does not apply to departmental exams unless stipulated by the department. The student must also be registered for at least one hour of graduate coursework (if in a non-thesis program) or thesis research (if writing a thesis). In non-thesis programs, all degree requirements must be met no later than the deadline in the regular semester following the final defense.

This committee, nominated by the chair of the student's major department and appointed by the Dean of the Graduate School, is ordinarily composed of those faculty members who served as the student's thesis committee. For the non-thesis option, the committee must consist of three or more members of the graduate faculty nominated by the chair of the major department and appointed by the Dean of the Graduate School. At least one member of the examining committee. Representatives of the graduate faculty may be added by the Dean of the Graduate School.

For students defending a thesis, the defense committee must have copies of the thesis at least two weeks prior to the final defense.

In order for a student to pass this defense, there may not be more than one dissenting vote. Dissenting votes, along with assenting votes, must be recorded on the defense forms and the thesis defense approval report submitted to the Graduate School.

### Failure of the Master's Thesis Defense

The masters' thesis represents the culmination of the degree program. Although failure is unusual, it can occur even with seemingly well-prepared students. Once a defense is scheduled, a grade must be filed with the Graduate School in a timely manner. The only grades that can be reported are P ("Pass"), F ("Fail"), or R ("Retake"). It is highly recommended that the defense results be filed within two weeks of the scheduled defense date. Failure to turn in a grade defaults to an F.

A grade of P indicates that the student has successfully completed and defended the thesis or dissertation and no further work is required.

A grade of F indicates that the student has not successfully completed or defended the thesis or dissertation. An F results in the student being terminated from the program at the end of the semester or summer term in which the defense is taken. The committee is required to provide the student feedback on why the defense was failed.

A grade of R indicates that the student has not successfully completed or defended the thesis or dissertation and that additional work, which may include a second oral defense, is required and permitted. The committee will provide specific feedback on the remaining requirements. The final grade, P or F, must be filed with the Graduate School by the end of the next regular semester. There is no minimum amount of time required for a retake. For a defense retake, the only grades that can be reported are P or F.

It is the responsibility of the student to schedule the final defense with sufficient lead time to meet the Graduate School deadlines for graduation in a given semester.

The oral defense and the thesis are considered an integrated requirement. It is not possible to pass one and fail the other. The committee should not sign the thesis defense approval report until all requirements, including successful oral defense, are completed, nor should it sign the oral defense report until the thesis has been successfully defended.

The student has the right to petition for reconsideration.

#### Failure of the Master's Non-Thesis Defense

The written and/or oral exams are major milestones in the graduate student's professional path. Once an exam is scheduled, a grade must be filed with the Graduate School in a timely manner. The only results that can be reported are P ("Pass"), F ("Fail"), or R ("Retake"). The grade must be filed within two weeks of the scheduled exam date. Failure to turn in a grade defaults to an F.

A grade of P indicates that the student has successfully passed the entire defense and is not required to retake any or all of the defense.

A grade of F indicates that the student has failed the entire defense and is not permitted to retake any or all of the defense. An F results in the student being terminated from the program at the end of the regular semester in which the defense is taken. The committee is required to provide the student feedback on why the defense was failed.

An R indicates that the student has failed part or all of the defense and will be permitted to take part or all of the defense one additional time. The committee will provide the student feedback on the specific weaknesses that should be corrected. The committee determines when the retake will be given, but it must be given no later than the end of the next regular semester. For the defense retake, the only grades that can be reported are P or F.

If the student wishes to graduate the semester during which the defense is taken, the student must make sure that the defense result is filed before the Graduate School deadline for graduation that semester.

The student has the right to petition for reconsideration.

#### **Request for Remote Participation in Graduate Committees**

The Graduate School and Graduate Council strongly encourage defenses in which all participants are present in person. Remote participation should be used only when there are serious impediments to physical presence at the defense and not be used simply for the convenience of a committee member. The committee Chair should aid the student in finding a meeting time at which all members can be present and assist the student in arranging for remote access equipment and technical assistance. The following guidelines are in effect:

A single committee member (other than the Chair or Dean's Representative) may participate in a Master's Defense and Request for General Defense remotely through VoIP (Voice over Internet Protocol) programs such as Skype without special permission from the Graduate School. The committee Chair, however, should give permission and notify the student. The telecommunications protocol chosen must permit real-time, two-way exchange of visual information (e.g., presentation slides) and dialogue among the committee members and the student to assure participation when physical presence is unfeasible.

Should extraordinary circumstances make it necessary for the Chair or the student or a second member (who is not the Dean's Representative) to participate via VoIP programs, approval must be sought from the Dean of the Graduate School at least three weeks prior to the scheduled meeting. That is, it is possible for two persons at the meeting to be present remotely except for the Dean's Representative. (The individual participating remotely can never be a Dean's Representative.) The "Request for Remote Participation in Graduate Committees" may be found at in the Forms section of the Grad School's website. This form must be signed (or approved by e-mail) by all committee members and submitted to the Graduate School before remote participation of two persons will be approved.

Also under very extraordinary circumstances, the student may participate remotely. However, these circumstances should be genuinely severe and detailed by the committee Chair in a separate petition to the Dean of the Graduate School and endorsed by the department chair. Reasons that would be acceptable might be documented long-term illness or disability. Reasons that are not acceptable would be, for example, employment elsewhere, lack of funding, family inconvenience, or residence in a foreign country. In general, students are required to be present at their milestone examinations in person.

The responsibility for arranging, testing, and assuring operative connection and time-zone coordination rests upon the student and the director (Committee Chair). If a formal Request for Remote Participation is necessary, the form must be completed and submitted to the Graduate School, along with the request for defense, at least three weeks prior to the date of the defense and by the current semester deadline for graduation, if applicable. Emergency requests, such as those caused by medical needs, will be considered on an ad hoc basis.

The following chart summarizes the above policy:

REMOTE PARTICIPANT	NOTIFICATION OR PRIOR APPROVAL REQUIRED	DETAILS
One committee member (not the chair or the Dean's Representative)	Notification	Committee chair must be notified and approve. No form is required.
The committee chair	Prior approval	Committee chair must petition the Dean of the Graduate School with the Remote Participation Form.
The Dean's Representative	Not permitted	
The candidate	Prior approval	Committee chair must petition the Dean of the Graduate School with the Remote Participation Form.
A second committee member	Prior approval	Committee chair must petition the Dean of the Graduate School with the Remote Participation Form.

### **Timely Completion of the Degree after Final Defense**

All final defense reports and the approval of all thesis format corrections requested by the document editor must be approved in the regular semester following the final defense. As with thesis candidates, non-thesis students who pass the final defense in one semester must complete degree requirements no later than the next regular semester following the final defense. A final defense may be voided by the Dean of the Graduate School for failure to have an approved thesis in a timely manner as described.

### Second Master's Degree

Students who wish to obtain a second master's degree from the university must meet all academic and residence requirements set by the Graduate School and the department concerned. A maximum of six hours from the first degree may be applied toward the second degree. These hours must be listed on the "Application for Degree" for the second master's degree under the "Transfer or Petitioned Credits" section.

#### **Accelerated Master's Degree Program**

The accelerated master's program is open to superior undergraduate students who have completed at least 60 semester hours of credit (including AP credit) with a grade point average of at least 3.50 for all work taken at LSU. To be eligible, transfer students must have a 3.50 average on all undergraduate work taken prior to attending LSU and must complete at least one semester at LSU with a 3.50 GPA.

Acceptance into the accelerated program requires approval from the following: (1) chair of the undergraduate department in which the student is enrolled; (2) dean of the college in which the student is enrolled; (3) chair of the department or the coordinator of the interdisciplinary program in which the student proposes to work toward the master's degree; and (4) Dean of the Graduate School. The requested approvals will be given as signatures on a form designed specifically for this program. It is the responsibility of the chair or coordinator of the graduate program to appoint the student's graduate faculty advisory committee.

Other admission requirements for graduate study, such as the GRE and the GMAT, will be waived until the student receives the baccalaureate degree and is ready to enter the Graduate School. Until that time, admission into the accelerated program will constitute provisional admission to the graduate program. Students will register as graduate students only after receiving the baccalaureate degree and satisfying departmental and the Graduate School admission requirements.

Continuing eligibility for the accelerated master's program will require maintenance of a 3.50 average in all courses that apply to the undergraduate degree and a 3.00 average for all graduate coursework.

Students who wish to obtain a master's degree under this program must meet all academic and residence requirements set by the Graduate School and the department concerned. Requirements for the baccalaureate degree will not be affected.

Students may take a maximum of half of the required hours for the master's degree while enrolled as undergraduates. These hours may be applied toward the master's degree, provided a GPA of 3.00 in graduate coursework is maintained and provided none of these hours apply toward the baccalaureate degree.

A student may wish to apply some graduate coursework toward the undergraduate degree. In such instances, the graduate committee can alter the distribution of coursework and independent study required for the master's degree. No course credit can be applied toward more than one degree.

# **Requirements for the Doctor of Philosophy Degree**

The Doctor of Philosophy (PhD) is the highest earned degree offered by universities. It is conferred only for work of distinction in which the student displays decided powers of original scholarship and only in recognition of marked ability and achievement. Nothing in the following summary of minimum standards should be construed to imply that the degree will be granted merely in recognition of faithful performance of prescribed work.

Satisfaction of the minimum requirements of the Graduate School, as stipulated in this section, in no way relieves a doctoral student of responsibility for satisfying any additional requirements deemed appropriate by the graduate faculty of the degree program in which he or she is enrolled. The basic requirements are: (1) students must exhibit unmistakable evidence of mastery of a broad major field. Such evidence is ordinarily provided by passing a general defense; and (2) students must prove ability to complete a significant program of original research by preparing a dissertation embodying creative scholarship and by passing a rigorous final defense. The dissertation must add to the sum of existing knowledge and give evidence of considerable literary skill.

#### Coursework

While the Doctor of Philosophy degree cannot be earned solely by passing courses, the program of work prescribed by a department ordinarily provides for a substantial amount of coursework, equivalent to a minimum of 54 hours including dissertation hours, beyond the requirements for the baccalaureate degree. Some departments require considerably more coursework. At least one-third of credits toward a graduate or a post-baccalaureate professional degree are earned through instruction, other than dissertation hours, offered by the institution awarding the degree.

Although coursework requirements are concentrated in the student's major field, a certain amount of work may be required in one or two minor fields. If there is minor coursework, the Graduate Council recommends that the minor field requirement include at least one 7000-level course. The coursework and the number of hours needed to satisfy the minor field requirement are determined by the graduate faculty in the minor department. The Graduate School recommends that the minimum minor hour requirement be no less than nine hours.

#### **Minimum Graduate Student Registration**

Graduate students engaged in the writing of theses or dissertations are expected to register for research hours commensurate with the amount of university resources—faculty time, equipment, library facilities, and/or office space—to be used that semester. Out-of-town students are also expected to register for research hours if they are receiving any faculty advice or direction.

In addition, doctoral candidates must maintain continuous registration for a minimum of three semester hours of credit each regular semester (excluding summers) from the completion of the general defense to the end of the semester in which the dissertation has been approved by the Graduate School. Doctoral students must be registered for a minimum of three semester hours of credit during any semester in which they are taking doctoral examinations, including the qualifying examinations required by some departments.

# **Academic Course Plan**

The Graduate School does not require a formal qualifying examination or procedure for doctoral students, although departments may, if they wish, administer such examinations or procedures. A student is eligible to work toward a doctoral degree beginning with the semester in which he or she is formally admitted into a doctoral program.

After meeting with the student, the advisory committee will be required to approve a departmental-level academic course plan listing all curricular requirements for the degree during the first or second semester following the student's formal admission to the doctoral program. If the student already has a master's degree, the departmental-level academic course plan should be formulated during the first semester; if the student is bypassing the master's degree, formulation may be delayed until the second semester. The advisory committee, which should include at least one representative from the minor field (if appropriate), is not necessarily identical to the student's committee for the general defense. The suggested general defense committee will be approved when the request for the general defense is submitted to the Graduate School.

The student's departmental-level academic course plan is subject to Graduate School policy and departmental requirements. Graduate coursework taken at another institution with grades of "A," "B," "P," and "S," or the equivalent, is not subject to the policy on transfer of credit for the master's degree, and may be included in the departmental-level academic course plan if accepted by the department and the student's advisory committee.

### **Advisory Committee**

During the entire period of work toward the doctorate, the student's program is directed by a special advisory committee. This advisory committee consists of three members of the graduate faculty. See the "Graduate Faculty" section for definitions of full, associate, and affiliate members of the graduate faculty. After the outlines of the program have assumed more definite form and the direction of research has been clearly established, this special committee is enlarged to three or more members with the addition of the Dean's Representative. This enlargement must take place prior to the general defense.

The full advisory committee must comprise at least three members of the graduate faculty, including the major professor, who acts as chair or co-chair and who must be from the major department. If either an adjunct or a non-tenure track faculty member is the major professor, a full-time tenured or tenure-track graduate faculty member must co-chair the committee.

At least one-half of the graduate faculty on doctoral committees must be full-time tenured or tenure-track faculty at LSU. A minimum of two of those faculty members must be from the student's major department and at least one of whom must be a full member of the LSU graduate faculty. The remaining members may be from the major department or may be from outside the department if pertinent to the student's area of concentration, with the proviso that at least one of the remaining members must be a full member of the graduate faculty.

Any declared outside minors require representation, either from among the first three members of the committee or by additional appointments to the committee. The Dean of the Graduate School may serve as an ex officio member. Members of the special advisory committee are nominated by the chair of the major department and appointed by the Dean of the Graduate School, who may make any changes deemed desirable.

The Dean of the Graduate School appoints a member or members of the graduate faculty to serve on doctoral general and final defense committees. These individuals represent the Dean of the Graduate School and the entire graduate faculty. They are full voting members of the committee with all the rights and responsibilities of the other committee members. In the case of final defenses, it is the responsibility of the committee chair to ensure that the Dean's representatives receive copies of dissertations as soon as possible, but no later than two weeks before the date of the defense.

#### **General Defense**

It is in the best interests of students that those with high probability of continuing successfully toward a doctoral degree be identified as soon as possible. Doctoral students are, therefore, required to pass a rigorous qualifying examination or the general defense within three calendar years (36 months)—or a period deemed equivalent for part-time students—of their classification as doctoral students. An exception may be made to this if a department notifies the Graduate School.

Whether a qualifying or general defense is used to meet the above requirement, the procedure should be sufficiently rigorous so as to provide reasonable confidence that the student who passes it may proceed successfully to a doctoral degree.

A student becomes eligible to take the general defense after demonstrating to the advisory committee adequate academic and professional aptitudes. Exams may be taken anytime the university is open for business. Students not in good academic standing will not be allowed to take the general defense. Graduate students are considered to be in good academic standing, (making satisfactory academic progress), if they maintain a 3.00 cumulative grade point average on all graduate coursework taken within the university (all LSU campuses) and a 3.00 semester average on all coursework (undergraduate and graduate), and earn a grade of "S" in research. Students who are not in good academic standing may not take any graduate milestone exams. Milestone exams

are defined by the Graduate School as the General Defense, Final Doctoral Defense, Master's Thesis Defense, and the Master's Non-Thesis Defense. This rule does not apply to departmental exams unless stipulated by the department. Students must be registered for a minimum of one to three hours of credit during the semester in which they are taking the general exam.

There is no Graduate School requirement that doctoral students pass a pre-general examination before becoming eligible to take the general defense. However, since pre-general examination requirements may be retained by individual departments, students should check with the appropriate departmental office concerning this requirement.

A request for the general defense must be submitted to the Graduate School by the student's department chair at least three weeks prior to the proposed defense date. This request must state the time and place proposed and the names of faculty members nominated to serve as the examining committee. These will be the members of the enlarged advisory committee including the dean's representative appointed by the Dean of the Graduate School. Any additions to or changes in the makeup of this committee must be approved in advance by the Dean of the Graduate School. At this time the final departmental-level academic course plan should be completed and submitted to the Graduate School with the "Request for General Exam."

The general defense is ordinarily the most rigorous test in the entire doctoral program. In order for the student to pass this defense, there may not be more than one dissenting vote. Dissenting votes, along with assenting votes, must be recorded on the defense forms submitted to the Graduate School.

The defense may be oral, written, or both oral and written, according to the rules of the major department. However, the minor department (if an outside minor has been declared) retains the right to decide the format of its part of the defense. The defense must be comprehensive enough to demonstrate expert competence over broad segments of the major field and a high degree of familiarity with the content of and current progress in one or more minor fields (if appropriate).

The general defense should be regarded as the culmination of a student's program in coursework. In most cases, the remaining time spent obtaining the degree is to be devoted to concentrated work on the dissertation and preparation for the final defense. When a student passes the general defense, the results should be forwarded by faculty and staff only to the Graduate School.

#### Failure of the General Defense

The written and/or oral defenses are major milestones in the graduate student's professional path. Once a defense is scheduled, a result must be filed with the Graduate School in a timely manner. The only results that can be reported are P ("Pass"), F ("Fail"), or R ("Retake"). It is highly recommended that the results be submitted to the Graduate School within two weeks of the scheduled defense date. Failure to turn in a grade defaults to an F.

A grade of P indicates that the student has successfully passed the entire defense and is not required to retake any or all of the defense.

A grade of F indicates that the student has failed the entire defense and is not permitted to retake any or all of the defense. An F results in the student being terminated from the program at the end of the semester or summer term in which the defense is taken. The committee is required to provide the student feedback on why the defense was failed.

An R indicates that the student has failed part or all of the defense and will be permitted to take part or all of the defense one additional time. The committee will provide the student feedback on the specific weaknesses that should be corrected. The committee determines when the retake will be given, but it must be completed no later than the end of the next regular semester. For the defense retake, the only grades that can be reported are P or F.

If the student wishes to graduate the semester during which the defense is taken, the student must make sure that the defense report is filed before the Graduate School deadline for graduation that semester.

The student has the right to petition the Dean of the Graduate School for reconsideration.

#### **Continuous Registration Requirement**

Doctoral candidates must maintain continuous registration for a minimum of three semester hours of credit each regular semester (excluding summers) from the completion of the general defense to the end of the semester in which the dissertation has been approved by the Graduate School.

The Dean of the Graduate School may exempt a student from the continuous registration requirement upon departmental certification that the student is in absentia from the university and is not drawing directly upon university resources. Exemptions are intended to accommodate students whose dissertation research requires extended periods of absence for field work in distant archives and laboratories. Exemptions are not intended for students who have accepted positions as employees in business, industry, education, or for reasons of financial hardship.

#### Dissertation

Students who have passed the general defense normally direct most of their energies toward preparation of the dissertation, which must be a contribution to knowledge in the major field of study. The dissertation must demonstrate a mastery of research techniques, ability to do original and independent research, and skill in formulating conclusions that in some way enlarge upon or modify accepted ideas.

The form of the dissertation must be in accordance with the instructions in the Formatting Electronic Theses and Dissertations handbook available online.

# LSU Alumni Association Distinguished Dissertation Award

The Distinguished Dissertation Award, consisting of \$2,000 and a certificate, is presented annually to two doctoral students whose research and writing epitomize superior scholarship. One award is designated for a student in the arts, humanities, or social sciences and one for a student in science, engineering, or technology. These awards are made each spring in conjunction with the Distinguished Research Master Award.

# **Final Defense**

A request for the final defense must be submitted to the Graduate School by the student's department chair at least three weeks prior to the proposed defense date or by the current semester deadline, if the student is a candidate for a degree (see the academic calendar for all pertinent dates). This request must specify the major and minor fields (if appropriate), dissertation title, time and place proposed for the defense, and nominations for the examining committee. The examining committee, including the dean's representative, must have copies of the dissertation at least two weeks prior to the final defense. Defenses may be taken anytime the university is open for business. The student must be registered for dissertation research hours (a minimum of three hours during the fall and spring semester or one hour during summer). The student must also be in good academic standing. Graduate students are considered to be in good academic standing, (making satisfactory academic progress), if they maintain a 3.00 cumulative grade point average on all graduate coursework taken within the university (all LSU campuses) and a 3.00 semester average on all coursework (undergraduate and graduate), and earn a grade of "S" in research. Students who are not in good academic standing may not take any graduate milestone exams. Milestone exams are defined by the Graduate School as the General Defense, Final Doctoral Defense, Master's Thesis Defense, and the Master's Non-Thesis Defense. This rule does not apply to departmental exams unless stipulated by the department.

Permission to hold the final defense will be granted by the Dean of the Graduate School only after all the foregoing conditions are satisfied and three (3) calendar months have elapsed since the student passed the general defense.

The Dean of the Graduate School will approve the final defense committee. In most cases, it will consist of the student's special advisory committee or a similarly constituted group to which one or more additions may have been made as representatives of the dean and the graduate faculty. Any additions to or changes in the makeup of this committee must be approved in advance of the defense.

Although the final defense is traditionally conducted as an oral test primarily concerned with the dissertation and related problems, the committee determines procedure and content, which may extend into subject matter related to major and minor fields (if appropriate), even though well removed from topics suggested by the dissertation.

In order for the student to pass this defense, there may not be more than one dissenting vote. Dissenting votes, along with assenting votes, must be recorded on the defense form and the defense approval report submitted to the Graduate School.

### Failure of the Doctoral Dissertation Defense

The Master's thesis and doctoral dissertation represent the culmination of these degree programs. Although failure is unusual, it can occur even with seemingly well-prepared students. Once a defense is scheduled, a grade must be filed with the Graduate School in a timely manner. The only grades that can be reported are P ("Pass"), F ("Fail"), or R ("Retake"). Failure to turn in a grade defaults to an F.

A grade of P indicates that the student has successfully completed and defended the dissertation.

A grade of F indicates that the student has not successfully completed or defended the dissertation. An F results in the student being terminated from the program at the end of the semester in which the defense is taken. The committee is required to provide the student feedback on why the defense was failed.

A grade of R indicates that the student has not successfully completed or defended the dissertation and that additional work, which may include a second oral defense, is required and permitted. The committee will provide specific feedback on the remaining requirements. The final grade, P or F, must be filed with the Graduate School by the end of next regular semester. For a defense retake, the only grades that can be reported are P or F.

It is the responsibility of the student to schedule the final defense with sufficient lead time to meet the Graduate School deadlines for graduation in a given semester.

The oral defense and the dissertation are considered an integrative requirement. It is not possible to pass one and fail the other. The committee should not sign the dissertation defense results until all requirements, including successful oral defense, are completed, nor should it sign the oral defense report until the dissertation has been successfully defended.

The student has the right to petition the Dean of the Graduate School for reconsideration.

#### **Request for Remote Participation in Graduate Committees**

The Graduate School and Graduate Council strongly encourage defenses in which all participants are present in person. Remote participation should be used only when there are serious impediments to physical presence at the defense and not be used simply for the convenience of a committee member. The committee chair should aid the student in finding a meeting time at which all members can be present and assist the student in arranging for remote access equipment and technical assistance. The following guidelines are in effect:

- A single committee member (other than the Chair or Dean's Representative) may participate in a Doctoral Degree Audit and a Doctoral Final Defense remotely through VoIP (Voice over Internet Protocol) programs such as Skype without special permission from the Graduate School. The committee chair, however, should give permission and notify the student. The telecommunications protocol chosen must permit real-time, two-way exchange of visual information (e.g., presentation slides) and dialogue among the committee members and the student to assure participation when physical presence is unfeasible.
- Should extraordinary circumstances make it necessary for the Chair or the student or a second member (who is not the Dean's Representative) to participate via VoIP programs, approval must be sought from the Dean of the Graduate School at least three weeks prior to the scheduled meeting. That is, it is possible for two persons at the meeting to be present remotely except for the Dean's Representative. (The individual participating remotely can never be a Dean's Representative.) The "Request for Remote Participation in Graduate Committees" may be found in the Forms section of

the Grad School's website. This form must be signed (or approved by e-mail) by all committee members and submitted to the Graduate School before remote participation of two persons will be approved.

- Also, under very extraordinary circumstances, the student may participate remotely. However, these circumstances should be genuinely severe and detailed by the committee chair in a separate petition to the Dean of the Graduate School and endorsed by the department chair. Reasons that would be acceptable might be documented long-term illness or disability. Reasons that are not acceptable would be, for example, employment elsewhere, lack of funding, family inconvenience, or residence in a foreign country. In general, students are required to be present at their milestone examinations or defense in person.
- The responsibility for arranging, testing, and assuring operative connection and time-zone coordination rests upon the student and the director (Committee Chair). If a formal Request for Remote Participation is necessary, the form must be completed and submitted to the Graduate School, along with the request for defense, at least three weeks prior to the date of the defense and by the current semester deadline for graduation, if applicable. Emergency requests, such as those caused by medical needs, will be considered on an ad-hoc basis.

#### **Timely Completion of the Degree after the Final Defense**

All final defense reports and the approval of all thesis format corrections requested by the document editor must be approved in the regular semester following the final defense. As with thesis candidates, non-thesis students who pass the final defense in one semester must complete degree requirements no later than the next regular semester following the final defense. A final defense may be voided by the Dean of the Graduate School for failure to have an approved thesis in a timely manner as described.

# **Application for Degree**

Early in each semester or summer term, there is a deadline for submitting the "Doctoral Application for Degree" to the Graduate School. Doctoral candidates are required to submit the "Doctoral Application for Degree" form by the semester's calendar deadline.

Submission of this form carries with it the implication that the student intends to graduate that semester. If circumstances prevent graduation, a "Doctoral Application for Degree UPDATE " form must be submitted to the Graduate School by the designated deadline for the semester in which the student plans to graduate.

# **Certification of Completion of Requirements**

Upon timely submission of the "Application for Degree," when the student has passed the final defense with no more than one member of the committee dissenting, and upon submitting a dissertation in acceptable form to the Graduate School, the student will be certified to the LSU Board of Supervisors by the Dean of the Graduate School as having fulfilled all requirements for the degree of Doctor of Philosophy. This certification takes place at the next commencement, at which time the degree is conferred.

# **Time Limit**

The program for the doctoral degree must be completed within seven years from the time a student is classified as a doctoral student. This time limit may not be exceeded except by special permission of the advisory committee, department chair or delegate (such as the Director of Graduate Studies), and college dean. A formal meeting of the advisory committee must be held to approve any time limit extension. No less than three calendar months may elapse between the passing of the general defense and the completion of all requirements for the doctoral degree. The start date for completion of the doctoral degree does not change if the student transfers into a different doctoral program.

# **Requirements for the Doctor of Musical Arts Degree**

The Doctor of Musical Arts (DMA) is a professional degree in music. The coursework, residence requirements, and examination sequences are similar to those for the PhD degree. Major differences in the two programs are in the dissertation and minor field requirements (if appropriate).

For the special admission and course requirements for this degree, consult the School of Music.

FULFILLING DOCTORAL DEGREE REQUIREMENTS		
Prepare Departmental-Level Academic Course Plan	• During the first semester after the master's degree is awarded or during the first full year of full-time graduate study for a student not taking the master's degree.	
Request General Examination	<ul> <li>After completing most coursework.</li> <li>Request for the general examination must be submitted to the Graduate School by the student's department chair at least three weeks prior to the proposed examination date.</li> </ul>	
Request Final Examination	<ul> <li>At least three calendar months after passing the general examination.</li> <li>Request for the final defense must be submitted to the Graduate School by the student's department chair at least three weeks prior to the proposed defense date or by the current semester deadline, if the student is a candidate for the doctoral degree.</li> </ul>	

# **Graduate Faculty**

# **Graduate Faculty Membership Status:**

Graduate faculty membership status is indicated by a number plus a letter or just by letter as follows:

(M) Full member
(7M) Seven (7) year member
(6A) Six (6) year associate member
(3A) Three (3) year associate member
(3F) Three (3) year affiliate member
(3P) Three (3) year professional member
(EM) Emeritus full member status
(EA) Emeritus associate member status
(O) Ex-officio

Please note that graduate faculty status is subject to change. Additional information can be found below:

Full descriptions of graduate faculty status

Current graduate faculty status

# **University Policy Statements**

This section includes links to the full text of two university policy statements that are of special interest to graduate students. PS-21 governs the entire graduate assistantship program; PS-85 deals specifically with the preparation of teaching assistants for instructional duties.

Other applicable Policy Statements, Permanent Memoranda, and additional rules and regulations are listed on the University Policies website. Students should pay particular attention to PS-106.

# **PS-21** • Graduate Assistantships

# Overview

The primary mission of the LSU Graduate School is to promote excellence in graduate education. Part of this responsibility mandates that the Graduate School develop policies governing the appointment and evaluation of graduate assistants (GAs) and monitor their implementation by employing units.

These policies include setting minimum academic qualifications for holding GA appointments, establishing appointment and renewal procedures, setting average workloads, and reviewing stipend levels and ranges.

This policy statement outlines procedures and guidelines affecting the graduate assistantship program. For special policies on the preparation of teaching assistants for instructional duties in classrooms and laboratories, see PS-85, Preparation of Teaching Assistants.

See full text of PS-21 here.

# **PS-85** • Preparation of Teaching Assistants

#### Overview

To lay out principles and requirements for the assignment, preparation, supervision, and evaluation of graduate teaching assistants at Louisiana State University.

Excellence in undergraduate and graduate instruction is central to the mission of the university. Preparation in pedagogy in a variety of teaching situations is an integral part of the education of graduate students. Accordingly, the graduate faculty must be committed to designing appropriate programs for the assignment, preparation, supervision, and evaluation of graduate teaching assistants with the aim of enhancing graduate student preparation and undergraduate learning. This policy statement should be read in the context of the general institutional policy on graduate assistantships as set forth in PS-21.

See full text of PS-85 here.

# Accounting (Graduate Program)

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

The Master of Accountancy program at LSU (MAcc) is designed to provide students with a greater understanding of accounting and business than is possible in an undergraduate program. The MAcc student will develop superior technical accounting knowledge, strong analytical skills, strong written and oral communication skills, and highly developed interpersonal skills. The program prepares students for careers as professional accountants in public practice, industry, financial institutions, government, and nonprofit organizations. The MAcc requires 30 hours of non-thesis coursework. The program is primarily designed for those with undergraduate preparation in accounting; however, exceptional candidates from other disciplines may be considered. Upon completion of the program, a student should have completed Louisiana's 150-hour educational requirement for the CPA examination.

The accounting doctoral program is designed to prepare doctoral students for successful careers at peer universities or better and to provide them with the skills needed to publish independent research in high quality research journals in accounting. The Department of Accounting is committed to excellence in teaching. Teaching is an integral part of an academic position in accounting and students acquire teaching experience as a part of the doctoral program.

# Administration

Thomas J. Phillips, Jr., Chair

Kon Reichalt DhD Advisor

Jacquelyn Sue Moffitt, Director of Graduate Studies, MAcc Program

Ken Keicheit, PhD Advisor	
TELEPHONE	225-578-6202
FAX	225-578-6201
E-MAIL	accounting@lsu.edu
WEBSITE	lsu.edu/business/accounting

# Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials which come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study. For doctoral program applicants, a copy of application materials (including a summary sheet) should be sent (through email or standard mail) to the PhD advisor. Three recommendation letters are required and the applicants should mail the sealed recommendation letters directly to the PhD advisor.

# Master's program

Applications for admission are received and evaluated by the department. Students can be admitted in the fall, spring, or summer semesters. The deadline for submitting an application for consideration into the MAcc program is March 15 for summer and fall entry and October 15 for spring entry. Students seeking admission must submit satisfactory credentials from previous study, acceptable GMAT scores, and three letters of recommendation. International students whose native language is not English must also submit an acceptable TOEFL, IELTS, or PTE score.

Admission will be considered by the faculty application committee only after the respective deadlines. If a student does not meet all requirements, he or she may be admitted provisionally. For example, a student may be admitted provisionally to the master's

program if he or she lacks one or two prerequisites and is working to complete them. Applications submitted after the deadlines will be considered on a rolling basis.

# **Doctoral program**

Applications for admission are received and evaluated by the department. The department's PhD committee will start to evaluate all applications around mid-January. Applicants must adhere to the application deadlines established by the Graduate School. Students seeking admission must submit satisfactory credentials from previous study, acceptable GMAT scores, three letters of recommendation, a resumé, and a personal statement. On the personal statement, students should provide an assessment of their writing ability and quantitative skills including any training in economics, calculus, statistics and computer programming as well as a personal background and his or her purpose in pursuing a doctorate degree. International students whose native language is not English and who do not have a diploma from a U.S. school when entering into the PhD program must also submit an acceptable TOEFL, IELTS, or PTE score.

# **Financial Assistance**

#### Master's program

Financial support is available for selected graduate students in the form of assistantships. Currently, these part-time assistantships pay a stipend of \$6,000 per academic year for selected Masters of Accountancy students. Students interested in applying for graduate assistantships should contact the MAcc program advisor. To ensure consideration for financial aid, all application materials should be submitted in accordance with deadlines established by the LSU Graduate School.

### **Doctoral program**

Financial support is available for selected graduate students in the form of assistantships. These graduate assistantships currently carry a stipend of \$27,000 and full tuition exemption. Students must pay applicable fees.

# **Graduate Faculty**

(check current faculty listings by department here)

Sanaz Sheila Aghazadeh (6A) • Judgement and decision making, specifically as they relate to the audit profession.
William Lawrence Buslepp (6A) Empirical Auditing and Capital Markets
D. Larry Crumbley (EM) • Taxation, Fraud and Forensic Accounting, Oil and Gas Accounting
B. Charlene Henderson (6A) • Business Taxation, Financial Accounting and Reporting, and Financial Institutions
Joseph Legoria (M) • Financial Accounting and Reporting, Securities and Exchange Commission and Regulatory Accounting
Issues
Norman Massel (6A) • Taxation, Financial Accounting, Capital Markets
Jacquelyn Sue Moffitt (M) • Corporate Social Responsibility, Auditing, Ethics and Financial Accounting
Thomas J. Phillips, Jr. (M) • Behavioral Accounting, Financial Accounting and Reporting
Kenneth J. Reichelt (M) • Financial Accounting, Empirical Auditing
Jared S. Soileau (M) • Accounting Information Systems, Internal Auditing, Corporate Governance, Risk Management

#### Glenn E. Sumners (M) • Internal Auditing, Governance, Risk, Controls, Fraud, Analytics

#### Accounting, MAcc

#### (SACCT)

The departmental-level academic course plan for each student will be developed in consultation with and approved by the MAcc Graduate Advisor. The degree is non-thesis and requires students to earn 30 hours of credit at the graduate level.

The curricular requirements include:

- At least 15 hours at the 7000 level or above,
- At least 18 hours in accounting courses, and
- A minimum core requirement of 18 credit hours in the areas of Advanced Theory, Advanced Accounting, or Government Not for Profit Accounting, Auditing, Tax, Statistics, and Analytics.

#### Accounting, Ph.D.

#### (PACCT)

The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements of the LSU Graduate School for graduate committees are satisfied.

The degree is a thesis degree that requires the student to complete a dissertation. The student must earn 54 hours of credit at the graduate level including a maximum of six hours of credit for the dissertation. The curricular requirements include:

- At least 54 hours at the 7000 level or above, exclusive of any type of independent studies credit except for the dissertation credit earned,
- A minimum core requirement of 15 credit hours in PhD research seminars, and
- At least one complete research paper.

The student must pass a comprehensive written exam within three years of beginning the program. The student must pass an oral dissertation defense administered by the dissertation committee chair.

# Agricultural Economics & Agribusiness (Graduate Program)

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

The Department of Agricultural Economics & Agribusiness offers a unique opportunity for graduate study. As a part of the landgrant university system, the department has joint research, teaching, and service responsibilities with the LSU Agricultural Center and LSU that enable it to address relevant issues pertaining to agriculture, economics, natural resources, and rural/community development in Louisiana, the nation, and the world. These joint research and extension components are instrumental in financially supporting the department's MS and PhD programs, as well as in providing problem-solving research opportunities for graduate students. Graduate programs are an integral component of the department's basic and applied research programs. The skills and research interests of the faculty provide a wide range of opportunities for graduate research projects. Interdisciplinary and regional research programs further expand the scope of research areas available to graduate students. In addition to the traditional programs in production, management, and marketing, departmental research includes agribusiness management, consumer economics, quantitative methods, environmental and natural resource management, international marketing and trade, and rural/community development.

# Administration

Michael Salassi, Head P. Lynn Kennedy, Graduate Advisor TELEPHONE FAX

WEBSITE

225-578-3282 225-578-2716

www.agecon.lsu.edu

# Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials which come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Applications for admission are received and evaluated by the department throughout the year, but PhD students are typically admitted in the fall semester. Applicants must adhere to the application deadlines established by the Graduate School. In addition to meeting the general admission requirements of the Graduate School, successful applicants must have an adequate background in economics or business, statistics, and calculus. An adequate background includes at least a basic macroeconomic and an intermediate microeconomic theory course (for a total of six hours), a course in statistics, and a calculus course.

Students pursuing the MS degree may take calculus for business and economics (or equivalent), but PhD students are encouraged to choose the traditional calculus sequence. Preference for students applying for admission to the PhD program is given to students who have completed an MS or MA. Students applying for the PhD who have not completed an MS or MA will be evaluated by the departmental graduate committee regarding initial admission to either the MS or PhD program. Students who lack adequate background may be admitted to the graduate program with the provision that the required background coursework be completed. It is not necessary to have an undergraduate degree in agricultural economics or economics to succeed in this department. Students with baccalaureate degrees in animal science, engineering, mathematics, agronomy, business administration, and various areas of liberal arts have been admitted to and successfully completed graduate degree programs in agricultural economics.

Students seeking admission must submit satisfactory credentials from previous study, acceptable GRE scores (1000 or greater), and three letters of recommendation. International students whose native language is not English must also submit an acceptable TOEFL, IELTS, or PTE score.

# **Financial Assistance**

Financial support is available on a competitive basis for highly qualified students. Assistantships are available through the Louisiana Agricultural Experiment Station and the College of Agriculture. Assistantships carry a waiver of non-resident tuition. Early application is encouraged, as many sources of funding have February 15 deadlines for completion of application materials. Additional details concerning availability of funds and/or applications for financial support are available from the department's Director of Graduate Studies.

# **Graduate Faculty**

(check current faculty listings by department here)

Naveen C. Adusumilli (3F) • Production, natural resource, and environmental economics Maria Bampasidou (6A) • Agricultural finance and labor economics Rex H. Caffey (M) • Natural resources, wetlands, and the environment Lawson Connor (6A) • Production economics and farm management Michael Deliberato (6A) • Commodity farm policy and farm management Gail L. Cramer (EM) • Marketing, international trade, and agricultural policy J. Matthew Fannin (M) • Rural and community economic development Roger A. Hinson (EM) • Marketing, agribusiness P. Lynn Kennedy (M) • International trade, agribusiness, and policy analysis Krishna P. Paudel (M) • Natural resource and environmental economics Jerrod Penn (6A) • Natural resource and environmental economics Danyi Qi (6A) • Agribusiness and food marketing economics Michael E. Salassi (M) • Farm management and production economics Mark J. Schafer (M) • Rural sociology Shaun Michael Tanger (6A) • Forestry economics Hector O. Zapata (M) • Econometrics, marketing, price analysis

# Agricultural Economics, M.S.

#### (SAGEC)

The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty from the Department of Agricultural Economics & Agribusiness, such that the LSU Graduate School requirements for graduate committees are satisfied.

The degree is a thesis/non-thesis degree requiring a thesis/special project. For a thesis degree, 33 hours of credit at the graduate level must be earned, including a maximum of six hours of credit for thesis research. For a non-thesis degree, 36 hours of credit at the graduate level must be earned, including a maximum of three hours of credit for special project research. The curricular requirements include:

- At least 17 hours at the 7000 level or above for the thesis option, not including thesis hours. At least 18 hours at the 7000 level or above for the non-thesis option.
- A primary area consisting of a minimum of nine hours of earned credit in a specified field of study.
- A minimum core requirement of 18 credit hours in economics and agricultural economics courses, with the specific requirements dependent on the area of concentration (see the Graduate Student Handbook at www.agecon.lsu.edu for more details).

The student must also pass a comprehensive oral final exam and, if thesis-track, an oral defense of the thesis research.

# **Agricultural Economics, Ph.D.**

#### (PAGEC)

The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty from the Department of Agricultural Economics & Agribusiness, such that the requirements of the LSU Graduate School for graduate committees are satisfied.

The dissertation-based degree requires 57 hours of credit at the graduate level, including a maximum of 12 hours of credit for the dissertation project. The curricular requirements include:

- At least 45 hours at the 7000 level or above.
- A minimum core requirement of 21 hours in economics and agricultural economics courses (see the Graduate Student Handbook at www.agecon.lsu.edu for more details).

The student must pass a general written exam and an oral exam (collectively termed the General exams). These exams are designed to test the student's knowledge of the theoretical and empirical applications of economics as covered in the core courses. A comprehensive final oral exam and defense of the dissertation is also required.

# **Agricultural & Extension Education (Graduate Program)**

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

The Department of Agricultural and Extension Education and Evaluation offer a Master of Science and a Doctor of Philosophy in Agricultural and Extension Education. These programs provide advanced discovery, knowledge, and research in areas deemed critical for the success and advancement in careers such as: agricultural education; Cooperative Extension Service; agricultural professions in business, industry, and government; and in other non-profit agencies. These two programs are the only graduate programs in Louisiana specifically for agricultural and extension education professionals providing an opportunity for students to receive the desired education from a land-grant institution with a rich heritage of providing high-quality education and research experiences in agricultural and extension education.

#### Agricultural & Extension Education, M.S.

#### (SAEE)

The 30-60 credit hour Master's program offers thesis and non-thesis paths, both requiring the same 18-hour core block of courses. Students are instructed on topics such as history and philosophy of agricultural and extension education; design and delivery of formal and informal programs; program evaluation; conduct of social scone research; and influence of behavior change in society.

For more information please contact the Department of Agricultural and Extension Education and Evaluation.

#### Agricultural & Extension Education, Ph.D.

#### (PAEE)

The PhD program requires a minimum of 62 hours above the Master's degree, including a research core of 20 hours, six additional hours of research coursework, 15 hours of AEEE graduate courses, 15 hours in a subject matter core selected by the student under the committee chair's advisement, and 12 dissertation research hours. Subject matter core areas are agricultural education, community and extension education, and international agricultural education.

For more information please contact the Department of Agricultural and Extension Education and Evaluation.

# **Animal Sciences (Graduate Program)**

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

The School of Animal Sciences offers graduate degrees with areas of specialization in breeding and genetics, growth and metabolic physiology, meat science and technology, dairy production, ruminant and nonruminant nutrition, reproductive physiology, and biotechnology.

Research is performed with beef cattle, dairy cattle, horses, pigs, sheep, goats, poultry, and various laboratory species. Interactions of school faculty with scientists in the School of Veterinary Medicine, Pennington Biomedical Research Institute, and units of the Louisiana Agricultural Experiment Station (LAES) throughout the state provide a vast array of research opportunities for graduate students in the animal sciences.

# Administration

Philip Elzer, Director		
Kenneth R. Bondioli, Graduate Coordinator		
TELEPHONE	225-578-3241	
FAX	225-578-5667	
WEBSITE	http://www.lsuagcenter.com/portals/our_offices/departments/animal-sciences	

# Admission

Applications for admission are received and evaluated by the School of Animal Sciences for each semester (fall, spring, summer). Applicants must adhere to the application deadlines established by the Graduate School.

Students seeking admission must submit satisfactory credentials from previous study, acceptable GRE scores, and three letters of recommendation. International students whose native language is not English must also submit an acceptable TOEFL, IELTS, or PTE score.

When all admission requirements are met, full admission will be considered by the graduate faculty members in the prospective student's area of interest. Final admittance to the program must be supported by a member of the graduate faculty in the school, thus students are encouraged to communicate with faculty directly about the possibility of working in a faculty member's program. If a student does not meet all requirements, he or she may be admitted provisionally (e.g., on probation if the GPA is not 3.0 or better).

# **Financial Assistance**

Financial assistance is available to some students. Support may be available through the school or other units in the form of research or teaching assistantships. Graduate assistantships are available on a competitive basis. Assistantships are awarded through faculty members, so applicants should contact individual faculty members concerning the availability of funding.

Students on assistantship receive full tuition waivers but are responsible for university fees. To ensure consideration for financial aid, all application materials should be submitted as early as possible before the actual admitting semester.

# **Graduate Faculty**

(Check current faculty listings by department here)

Kenneth R. Bondioli (M) • Reproductive physiology/biotechnology; embryo biotechnology, somatic cell nuclear transfer, genetic modification of animals, stem cell biology and epigenetic regulation of gene expression
Richard K. Cooper (3A) • Aquatic Diseases
Philip H. Elzer (M) • Infectious Diseases
Xing Fu \* Muscle Biology
Jerome F. La Peyre (3F) • Oyster diseases
Kenneth W. McMillin (M) • Meat properties, processing, and packaging; food safety; goat meat
Zongliang Jiang (\_) • Molecular genetics, Bioinformatics
Vinicius R. Moreira (M) • Dairy cattle nutrition and management
Christine B. Navarre (M) • Extension Veterinarian, animal health and diseases
Erin L. Oberhaus (\_) • Equine Reproduction, Ovarian function
Timothy Guinn Page (M) • Nutrition, beef cattle, management
Donald L. Thompson, Jr. (M) • Equine reproductive physiology and endocrinology, endocrine aspects of growth and metabolism
Neely L. Walker (3F) • Equine Extension
Cathleen C. Williams (M) • Dairy calf and heifer nutrition, dairy management

#### Animal Sciences, M.S.

#### (SASCI)

The departmental-level academic course plan for each student will be developed in consultation with the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

Both thesis and non-thesis options are available. The thesis option requires a thesis research project; a minimum of 30 hours of credit at the graduate level must be earned including a maximum of six hours of credit for the thesis (ANSC 8000).

The curricular requirements include:

- At least 15 hours at the 7000 level or above; no more than six hours of ANSC 7061 Research in Animal Science (1-6) may be applied to the degree.
- At least one hour of seminar (ANSC 7091).
- All coursework must be approved by the student's examining committee.

For the non-thesis option, a minimum of 36 hours of coursework is required; at least half of the 36 hours (18 hours or more) must be at the 7000-level. Up to six hours of ANSC 7061 Research in Animal Science (1-6) may be applied to the degree and towards the 7000 level requirement. All coursework must be approved by the student's examining committee.

Thesis option students are required to present a 30-45 minute public seminar in defense of their thesis research prior to a comprehensive final oral exam with the student's examining committee. Non-thesis option students must pass a comprehensive final oral exam administered by the student's examining committee; a written portion of the final exam may also be required by the committee.

# Animal Sciences, Ph.D.

#### (PASCI)

The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

The PhD degree is a research degree requiring a dissertation project. Coursework to be taken for the PhD degree must be approved by the student's advisory committee and the graduate dean. A minimum of 9 hours of dissertation (ANSC 9000) is required; a minimum of 54 credit hours of graduate coursework beyond the bachelor's degree must be taken, which can include up to 30 hours of credit transferred en bloc from a master's program at another institution. Students earning the M.S. degree at LSU and progressing to the PhD program may apply up to 36 credits from the M.S. towards the 54-credit minimum.

The curricular requirements include:

- At least two hours of seminar (ANSC 7091 or equivalent)
- No more than 6 hours of ANSC 7061 can be applied to the degree

Students in the PhD program must pass a comprehensive general exam on coursework, general knowledge, and critical thinking ability; an oral exam is required, and a written exam may also be administered at the examining committee's discretion. A dissertation is required. Students are required to present a 30-45 minute public seminar in defense of their dissertation research prior to a comprehensive final oral exam with the student's examining committee.

# Architecture (Graduate Program)

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

The master's degree in architecture is a professional degree program dedicated to the development of professional skills and design excellence as a means of engaging the natural and cultural forces that shape the built environment. The program emphasizes inquiry into the role of design in the study of place, the role of architecture in the structure and perception of the city, and the relationship of these to the conceptual and physical assembly of buildings. Investigation of the remarkable diversity of urban and rural landscapes of Louisiana and the Lower Mississippi Delta Region provides a local context for informed studies that lead to engagement with broader regional and global concerns.

# Administration

Marwan Ghandour, Director			
Marwan Ghandour, Graduate Coordinator			
TELEPHONE	225-578-6885		
FAX	225-578-2168		
WEBSITE	www.design.lsu.edu/Architecture/		

# Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: Graduate Student Services, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Applicants must adhere to the application deadlines established by the Graduate School and the School of Architecture. The application deadline is February 1st for the School of Architecture.

Students seeking admission must submit satisfactory credentials from a bachelor degree, *GRE* scores of 310 (1000 under the older scoring system) minimum, a GPA of 3.0 minimum, and three letters of recommendation. A portfolio (hard copy) of creative work is required for admission to the MARCH I program. International students whose native language is not English must also submit an acceptable TOEFL, IELTS, or PTE score.

Applicants must also send the following application materials to the LSU School of Architecture, Attn: Graduate Selection Committee, 136 Atkinson Hall, Baton Rouge, LA 70803:

- Statement of Intent, up to 500 words, that articulates your future goals and perspective on the way your graduate education will help you achieve these goals.
- Transcripts from all universities attended or attending and from which you have received degrees. To be admitted without probation, applicants need to have satisfactory credentials from a bachelor degree with a 3.0 minimum GPA.,
- Three letters of recommendation (Download the Letters of Recommendation form.)
- A digital or physical portfolio of creative work. Digital portfolios should be one PDF file with a maximum size of 30 megabites.
- International students whose native language is not English must also submit an acceptable TOEFL, IELTS, or PTE score.
- Applicants may also submit GRE scores.

Applicants can upload all application material to the Graduate School Application portal. If needed, some material can be mailed to the LSU School of Architecture, Attn: Graduate Selection Committee, 136 Atkinson Hall, Baton Rouge, LA 70803. All inquiries regarding the application process can be sent by email to sarch@lsu.edu. Applicants interested in applying for graduate assistantship should fill the form on the school website and submit it to the school by the email designated above.

# **Financial Assistance**

Financial assistance is available to selected students. To ensure consideration for financial aid, all application materials should be submitted in accordance with deadlines (at time of application for School of Architecture) established by the LSU Graduate School.

# **Research Facilities & Units**

The school has achieved national and international recognition for research in energy conservation, historic preservation, and community design studies. Research resources include:

• Coastal Sustainability Studio (CSS), an interdisciplinary environment, which serves the research and outreach endeavors of the school, creating opportunities for student enrichment and specialization in coastal adaptation and restoration

- The Computer-Aided Design and Geographic Information Systems (CADGIS) research laboratory is located at 216 Design Building. CADGIS is dedicated to teaching and research in the areas of computer-aided design, image-processing, and more applications in architecture, art, interior design, and landscape architecture. CADGIS offers large format printing and scanning, and other computer services geared toward design. For a list of lab software please see CADGIS Software List.
- The Design Shop at the LSU College of Art & Design provides students with a workspace, hand tools, and power machinery for a variety of uses and materials. Under the supervision of the Design Shop Manager this large and comprehensive workshop is available for student use to complete class projects.
- The College of Art & Design Fabrication Factory is a new digital fabrication laboratory for students and faculty funded in part through the LSU Student Technology Fee program. The factory provides the capacity to create a multidisciplinary, active, team-learning environment by leveraging large-scale digital fabrication equipment for cutting, shaping, and forming metal, wood, and plastic toward the resolution of creative design problems. To this end the factory consists of a trio of machinery that forms its core toolset
  - 1. a computer numerically controlled (CNC) large-bed router system by Forest Scientific,
  - 2. a CNC plasma cutter system by EZ-Plasma, and

3. a large-volume fused deposition modeling (FDM) 3D printer by BigRep.

• These enhancements will have a broad impact for university education, recruitment, and research in the application of digital fabrication technology in architecture, art, engineering, interior design, landscape architecture, music, and digital media

# **Graduate Faculty**

(check current faculty listings by department here)

Traci Birch, PhD, (6A) • AICP: Urban planning and design; ecosystem management; coastal sustainability; climate change and social justice

J. Michael Desmond, PhD (7M) • History, theory, and criticism of architecture; architecture and the city; American architecture and cultural mythology

Ursula Emery-McClure, FAAR, AIA, LEED AP BD+C (M) • Process Construction, experimental tectonics, coastal sustainability, and the Louisiana condition

Niloufar Emami, PhD, (6A) • LEED GA• computational design and simulation, performance-based design, fabrication, structural and composite material systems, interdisciplinary design and pedagogy

Robert Holton, IDP Coordinator (6A) • Contextual fields, advanced building construction, fabrication, and material technologies Paul Holmquist, PhD (6A) • History and theory of architecture, sustainable urbanism, design for the public realm

Kristopher Palagi (6A) • Architectural Design, Construction materials and assemblies

Angeliki Sioli (6A) • Architectural design, European architectural history and theory

Thomas Sofranko (M) • Abstraction and composition, design education

Alcibiades P. Tsolakis (M) • Art and design, construction, Mediterranean architecture, Islamic art, drawing and sculpture Robert Zwirn, AIA (M) • Architectural design, American architectural history and theory

#### Architecture, M.Arch

#### (MARCH)

The school offers graduate studies to students with degrees in other fields or to students with pre-professional degrees in architecture who wish to pursue a professional career in architecture (professional course of study). All options lead to the Master of Architecture (MArch) degree. This professional degree program is accredited by the National Architectural Accrediting Board (NAAB).

In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be granted an 8-year, 3-year, or 2-year term of accreditation, depending on the extent of its conformance with established educational standards.

Master's degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree that, when earned sequentially, constitute an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree.

The Master of Architecture (M.Arch) degree is a three ½ year professional degree open to applicants with undergraduate qualifications in any discipline. Those with accredited degrees in architecture or landscape architecture are eligible for entrance into the program's second year, following consultation with the graduate coordinator and review of qualifications and portfolio. The degree is a non-thesis degree requiring a comprehensive design project. Thirty-six hours of credit at the graduate level must be earned including a maximum of six hours of credit for the comprehensive design project. The curricular requirements include:

- At least 36 hours at the 7000 level or above, exclusive of any type of independent studies credit except for special project credit earned.
- A core requirement of 48 credit hours comprised of NAAB required professional architecture courses. Credit is given for students with a pre-professional architecture on a case-by-case basis that is decided by the School of Architecture Graduate Coordinator in consultation with the faculty.

The student must pass a final exam consisting of an oral presentation and defense of the comprehensive design project before their examining committee.

# Art & Art History (Graduate Program)

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

# Master of Fine Arts (MFA) in Studio Art

Areas of specialization include ceramics, digital art, graphic design, painting and drawing, photography, printmaking, and sculpture. Degree regulations include full-time residency, maximum of five years to complete, minimum of nine credit hours per semester, exhibition of specific thesis project, written thesis report, and oral defense of the work. Students admitted into the MFA program with an undergraduate studio art degree (BFA) must complete a minimum of 60 hours of graduate level credit over the course of three years. Although this is a rare occurrence, a student may petition their graduate review committee and the graduate coordinator for approval to complete the program one semester early, or in two and one half years, as long as 60 credit hours are completed.

# Master of Arts (MA) in Art History

The Art History MA Program was founded in 1946 and is the largest public program of its kind in Louisiana. It provides students with a strong grounding in the field and its methodologies and offers courses covering a wide range of cultures and aesthetic viewpoints. LSU's Art History MA program accommodates both students seeking a terminal graduate degree and those who plan to continue on to the PhD degree at another institution. As a terminal degree, it prepares students to teach art history at the college level and assume a variety of curatorial and educational positions within museums, galleries, and cultural organizations. The program offers a broad spectrum of courses and specializations in ancient, medieval, Renaissance, baroque, American, Asian, Latin American, modern, contemporary and media art, as well as design history and critical theories of art.

# Administration

Rod Parker, Director Denyce Celentano, Studio Graduate Coordinator Elena Sifford, Art History TELEPHONE FAX WEBSITE

225-578-5411 225-578-5424

design.lsu.edu/art

# Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Please note: Art History and Studio Art graduate students must assume full responsibility for the knowledge of rules and regulations of the Graduate School and the School of Art. Deadlines and due dates for various requirements can be found here in the *General Catalog* and Academic Calendar.

# Admission to the Studio Art MFA Program

To apply to the graduate program in studio art, you must create an account and submit your work for the portfolio review at lsuart.slideroom.com/ in addition to the Graduate School application. Detailed instructions for submission can be found on the school's website: design.lsu.edu/art. Admission is selective and your application is evaluated on the basis of grade point average, letters of recommendation, and your portfolio. You must hold a BA or BS degree to be considered for the graduate program.

Your submission will include: 1. Portfolio including 20 examples of recent work in still image or video format. Interactive, webbased and installation, and other types of work should be presented through documentation in still image or video format. Please limit submissions including video to no more than ten minutes total, including excerpts when necessary to meet this requirement. 2. Description of works, including: titles, dates completed, size, and media and/or url.

Students are encouraged to schedule a personal interview with faculty from art history or a prospective studio area; and enjoy LSU's beautiful campus.

# Deadlines

Applications must be received by **February 1** for entrance in the fall semester and by **October 1** for entrance in the spring. Please indicate in the letter of intent whether or not you would like to be considered for a graduate assistantship award. Enrollment in some specializations in studio art is limited; please check the School of Art website to ensure that your area of specialization is accepting applications for the semester in which you wish to enroll.

International students whose native language is not English must also submit an acceptable TOEFL, IELTS, or PTE score.

### Admission to the MA program in Art History:

Applications for admission are received and evaluated by the department beginning **February 1** for the following fall semester, and **October 1** for the following spring semester. Applicants must adhere to the application deadlines established by the Graduate School.

Students seeking admission must submit satisfactory credentials from previous study, acceptable GRE scores, and two letters of recommendation. International students whose native language is not English must also submit an acceptable TOEFL, IELTS, or PTE score.

# **Financial Assistance**

Financial assistance is available to selected students. Support may be available through the student's home department or other units in the form of research or teaching assistantships. To ensure consideration for financial aid, all application materials should be submitted in accordance with deadlines established by the LSU Graduate School.

# **Graduate Faculty**

(check current faculty listings by department here)

Andresen, Scott (6A) • Foundations in Art Ariaz, Jeremiah A (M) • Photography Arp, Kimberly P (EM) • Printmaking Aubanel, Marc (3P) • Digital Media Baggett, Lynne (M) • Graphic Design Barr, Courtney A (M) • Graphic Design Bower, Gerald J (M) • Graphic Design Celentano, Denyce (M) • Painting and Drawing Cellucci, Vincent Anthony (3F) • Professional Practice Writing Dean, Paul R (M) • Graphic Design Doubleday, Richard (M) • Graphic Design Friedman, Leslie Anne (6A) Hentz, Christopher A (EM) • Jewelry/Metalsmithing Kelley, Kelli Scott (M) • Painting and Drawing Koptcho, Leslie (M) • Printmaking Malveto, John A (7M) • Painting and Drawing McClay, Malcolm James (M) • Sculpture Nam, Hye Yeon (6A) • Digital Art Neff, Thomas M (EM) • Photography Ortner, Frederick G (M) • Painting and Drawing Ostrenko, Frederick W (6A) • Digital Art Parker, Roderick A (M) • Graphic Design Ryan, Susan E (M) • Art History Schwerd, Loren G (M) • Sculpture Shaw, Andy (M) • Ceramics Smith, Edward C (M) • Painting and Drawing Spieth, Darius A (M) • Art History Thompson, Kristine (6A) • Photography/Digital Art Walsh, Michaelene (7M) • Ceramics Warwick, Johanna (6A)

Wesley, Kenneth Martin (3P) • Digital Media Zou, Jun (M) • Digital Media

# Art History, M.A.

#### (AFAAH) - 30 credit hours

The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

The degree requires a thesis. Thirty hours of credit at the graduate level must be earned, including six hours of credit for thesis research at the 8000 level. The curricular requirements include:

- At least 12 hours at the 7000 level, excluding thesis research hours.
- A primary area consisting of a minimum of nine hours of earned credit in a specified field of study.
- A minimum distribution requirement of nine hours as follows: at least one course in three out of the following four areas: (1) ancient and medieval art; (2) Renaissance through 18<sup>th</sup>-century art; (3) 19<sup>th</sup> through 21<sup>st</sup>-century art; and (4) non-western art.
- A reading competency exam in French or German (except in special cases where a student's thesis topic requires expertise in a language other than French or German, another language may be approved).
- Completion of a one-hour Methods Colloquium (ARTH 7410).

The student must pass a comprehensive written exam on material in the student's area of concentration and an oral defense of the MA Thesis.

#### Studio Art, M.F.A.

#### (MFAS) - 60 credit hours

- Minimum credit hours of graduate (7000) level courses 27 credit hours; to include nine credits in area of concentration.
- Studio Art or approved General Electives, at 4000 level and above, 12 credit hours, (which may be taken in any specialization including your area of concentration)
- Art History courses at 4000 level and above 12 credit hours; (students may petition to substitute three hours for an approved academic elective)
- Teaching Seminar (three credit hours)
- ART 8000 six credit hours (thesis research two semesters, three credit hours each)

Total Hours: 60

No more than 12 hours of graduate credit may be transferred from NASAD accredited institutions within the United States. For restrictions, please see "The Graduate School" regulations under *Transfer of Credit*.

# Interdisciplinary Program in Art + Design (Graduate Program)

# **Program Overview**

Arising from the confluence of current professional trends and educational resources, the multi-disciplinary Doctor of Design (DDes) degree in Cultural Preservation endeavors to meet increasing demands for advanced training and experimentation in the management and preservation of cultural heritage. This advanced academic degree highlights the many ways in which the study, preservation, and enhancement of cultural initiatives and resources benefit the economy of communities and the quality of life for their residents.

# Administration

Lake Douglas, Ph.D., FASLA

TELEPHONE225-578-9222

E-MAIL wdougl1@lsu.edu

#### **Cultural Preservation, DDes**

(PDDCP)

The 60-credit-hour program encompasses six semesters of study and 45 hours of new course offerings specific to the curriculum and its advanced nature, mostly devoted to individual, supervised research, requiring students to work one-on-one with faculty. Students will share a common core of seminars on cultural preservation and research methods, while the curriculum for each specialization includes allied subjects and special requirements to ensure cross-disciplinary study.

The degree includes four areas for specialization:

- 1. **History and Theory of Material Culture**: studies in the production and history of art, architecture, cultural landscapes, interiors, and representation, with explorations through different lenses of environmental consideration, geographical location, national/international movement, and corresponding examples from related cultures.
- 2. **Environmental Policy**: investigations of policy and technical expertise arising from environmental and social sciences, law, and public policy to build on previous academic training and professional practice experience in the design and planning disciplines (architecture, landscape architecture, urban design, regional planning).
- 3. **Fabricative Materials & Technology**: inquiry and exploration through digital design as a research tool contributing to the analysis, understanding, and improvement of the built environment at new levels of scale and complexity, with an experimental design project that develops new methods, material systems, or technologies in digital design and fabrication through production of a large-scale artifact and a critical thesis.
- 4. **Museum Studies**: combined academic study of art history and other cultural resources with training in administration, conservation, interpretation, and exhibition through a blend of managerial, presentation, and technical skills.

As an advanced academic degree, the DDes will generate graduates prepared to fill leadership positions in numerous professional and academic fields related to the cultural economy and thereby make significant contributions to the advancement of cultural preservation in Louisiana and throughout the country.

For more information, contact: Lake Douglas, Ph.D., FASLA

Associate Dean for Research and Development

Associate Professor, Robert Reich School of landscape Architecture College of Art + Design, Louisiana State University Baton Rouge, LA 70803 wdougl1@lsu.edu 225-578-9222

# **Biological & Agricultural Engineering (Graduate Program)**

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

Established in 1921, Biological and Agricultural Engineering integrates applied biology into the fundamental principles of engineering for the purpose of designing processes and systems that influence, control, or utilize biological materials and organisms for the benefit of society. The discipline applies the principles of analysis, synthesis, and design to physical problems and processing systems associated with plants, animals, and humans, and their environments.

Biological and agricultural engineering is based on the basic sciences of mathematics, physics, chemistry, and biology. These are integrated with the engineering sciences of statics, dynamics, strength of materials, fluid mechanics, thermodynamics, and electricity. Students can pursue more specialized interests through technical electives in biomedical, biomechanical, bioenvironmental, and bioprocess engineering.

Current research areas include molecular and cellular engineering, nano-bioengineering, bio-mechanics, by-products utilization and value added processing, biological waste management, environmental resources protection and reclamation, bioenergy, food processing and preservation, simulation of biological and agricultural systems, drainage, irrigation, erosion control systems, climatology, biomechanics, remote sensing applied to precision agriculture.

## Administration

David Constant, Head	
Cristina Sabliov, Graduate Coordinator	
TELEPHONE	225-578-3153
FAX	225-578-3492
WEBSITE	www.lsu.edu/eng/bae

### Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Applications for admission are received and evaluated by the department (with **March 1** being the normal deadline for fall admissions and **October 1** for spring admissions). Applicants must adhere to the application deadlines established by the Graduate School.

Students seeking admission must submit satisfactory credentials from previous study, acceptable GRE scores, and three letters of recommendation. International students whose native language is not English must also submit an acceptable TOEFL, IELTS, or PTE score.

# **Financial Assistance**

Financial assistance is available to some students. Support may be available through the department or other units in the form of research or teaching assistantships. A student should contact the department for more information on available assistantship positions. To ensure consideration for financial aid, all application materials should be submitted in accordance with deadlines, normally by March 1 for fall and by October 1 for spring and the deadlines established by the LSU Graduate School.

# **Graduate Faculty**

(check current faculty listings by department here)

Carlos Ernesto Astete (3F) • Nanotechnology; bioactivities delivery systems and bioprocessing Richard L. Bengtson (EM) • Water pollution, soil erosion, hydrologic modeling Dorin Boldor (M) • Food process engineering and bioenergy David Constant (M) • Transport and fate of hazardous substances, environmental engineering; bioremediation Stacia L. Davis (3F)• Irrigation water management Steven G. Hall (M) • Aquacultural, ecological and coastal bioengineering, environmental bioethics Daniel Hayes (M) • Nanomaterial and nanoscale influence Kevin Hoffseth (6A) • Deformation and Failure in Biological Composite Materials Jangwook Jung (6A) • Engineering biomaterials for tissue regeneration, stem cell bioengineering Yongchan Kwon (6A) • Synthetic biology and bioengineering Thomas B. Lawson (EM) • Aquaculture systems, bioenvironmental engineering Marybeth Lima (M) • Bioprocessing engineering, value-added processing Elizabeth Carol Martin (6A) • Biomedical Research W. Todd Monroe (M) • Molecular and cellular engineering Randy R. Price (3F) • Developing innovative programs in precision application technologies and mitigating off-target pesticide drift Cristina M. Sabliov (M) • Bioprocessing, separation methods, FEA modeling Chandra S. Theegala (M) • By-product utilization, bioenergy, wastewater treatment, biosensing

Faculty in other departments:

Giovanna Aita (M) • Biomass conversion, antimicrobials for food, characterization of antimicrobial resistant bacteria Subramaniam Sathivel (M) • Food engineering with emphasis on design and development of food processing unit operations; preservation and packaging of foods (coatings, edible films, microencapsulation); thermal, rheological, and functional properties of ingredients and foods; development of nonfood materials from biological wastes including biodiesel Louis Thibodeaux (M) • Chemodynamics, hazardous waste transport

(See departmental website for latest listing.)

## **Biological & Agricultural Engineering, M.S.BAE**

(MBAE)

This department offers master's study in biological and agricultural engineering, offered with both thesis and non-thesis options as well as the interdisciplinary PhD in Engineering Science through the College of Engineering. Students pursuing advanced degrees are expected to have completed a previous degree in an accredited biological and agricultural engineering program or similar program. Students who do not have a BS degree in engineering may pursue an MS in the College of Engineering's interdepartmental program.

The thesis option requires 24 semester credit hours of approved coursework, plus six additional hours of thesis research credit, and successful defense of a research thesis. The non-thesis option requires a minimum of 36 semester hours of coursework including a three-credit hour project course. The project course incorporates a written report and oral presentation to the graduate advisory committee. Additional coursework may be necessary for students lacking the proper course prerequisites or as required by the graduate advisory committee and specified on an approved plan of study.

The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

The curricular requirements include:

- At least half of coursework hours at the 7000 level or above.
- At least half of coursework hours in Engineering.
- No more than two BE 7909 courses may normally apply unless such a course was offered as a formal classroom course; at least one advanced Math or Statistic course at 4000 or graduate level for three credit hours or more and one credit of BE 7500 are required.

### **Biological Engineering, PhD**

#### (PBE)

Admission to the PhD Program in Biological Engineering will be made based on a recommendation by the graduate admission committee. The plan of study for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied. Forty-two credit hours of non-research course work beyond the BS, with the following provisions:

- At least half credit hours at 7000 level or above
- At least half credit hours in the College of Engineering
- At least one (3 credit hours) advanced math or statistics course at 4000 or 7000 level
- At least 12 credit hours in Biological Engineering
- No more than six credits of BE 7909
- One credit hour of BE 7500

Students with a MS degree in Biological Engineering or a related field can transfer up to 21 credit hours of non-research coursework with approval of the Director of Graduate Studies.

Ph.D. students from other departments who choose **BAE as a minor** should be expected to take at least 12 hours of BE graduate credits to satisfy their requirements for a minor. The specific courses, which can include independent study, will be determined by the student's minor professor.

Each PhD student completes a milestone examination within 12 months of admission to the BE PhD -Program. This examination serves as the student's **qualifying exam** for continuing in the PhD program. The exam consists of 1. Report summarizing the student's research proposal to be submitted to the committee two weeks prior to the exam date, and 2. Presentation of the research proposal to the advisory committee.

At or near the end of the completion of a PhD student's required course work, the student should schedule **the general examination**. The general examination consists of two parts: one written, the other oral. The written portion is at the discretion of the committee. The oral portion will include an update on the research progress, although the oral examination need not be limited to topics related to the student's PhD research. Upon successful completion of the general examination, the PhD candidate moves forward with the dissertation to demonstrate the ability to design and conduct independent and original research. **The final examination** will be an oral examination primarily concerned with the dissertation, although the committee may opt to extend the questions to the general subject matter.

### **Engineering Science, Ph.D.**

#### (PES)

The college accepts qualified students with bachelor's or master's degrees in engineering or a pure or applied science to work toward a PhD in this interdisciplinary program. The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee must consist of at least three members of the graduate faculty. The major professor (advisory committee chair) must be from a department within the College of Engineering and at least one member of the student's committee must come from a department offering the PhD degree in the College of Engineering. The advisory committee must also include representatives from the sub-areas of specialization.

A PhD departmental-level academic course plan, approved by the student's advisory committee, should be submitted to the Associate Dean for Academic Affairs in the College of Engineering by the start of the second semester of enrollment. Students applying to transfer into Engineering Science or to enroll as dual degree after one semester at LSU, MUST complete the Engineering Science PhD plan of study as part of the application process. This early plan of study will map directly to the Doctoral Degree Audit form required by the LSU Graduate School as candidates near completion of their coursework.

The student will be required to complete a minimum of 54 semester hours of approved coursework beyond the bachelor's degree and prepare a dissertation acceptable to his or her advisory committee and the Graduate School. At least half of the coursework (27 semester hours) must be taken in courses offered by departments within the College of Engineering. Requirements include 24 hours of coursework concentrated in at least two sub-areas of specialization within one or more academic departments. The remaining 30 semester hours of coursework must contain no more than 15 hours in any one department.

The interdisciplinary degrees of the Ph.D. in Engineering Science are offered in Materials Science and Engineering, Environmental and Technological Hazards Engineering, Information Technology Engineering, Biological Engineering, and Construction Management. The Ph.D. requires at least two sub-areas of specialization within one or more academic departments, in addition to the major concentration area of study.

### **Biological Sciences (Graduate Program)**

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

The Department of Biological Sciences offers research-oriented Master of Science (MS) and Doctor of Philosophy (PhD) degrees in two areas: Biochemistry and Biological Sciences. A major goal of the faculty in Biological Sciences is to provide training for graduate students who are interested in independent careers in the biological sciences and biochemistry. Biological sciences graduate students prepare for careers that emphasize an interdisciplinary approach to biology and undertake their degrees in one of the three divisions within the department. Biochemistry and Molecular Biology (BMB) offers research opportunities in areas such as the analysis of structure and function of complex carbohydrates, lipids, nucleic acids, and proteins; DNA repair; and study of extremophiles. In Cellular Developmental and Integrative Biology (CDIB), faculty conduct research in sensory and endocrine systems at the molecular, cellular, and systems level; developmental biology and cell differentiation; transcriptional regulation; intra- and inter-cellular signaling; functional and comparative morphology; neurobiology; comparative and environmental physiology. The Systematics, Ecology and Evolution (SEE) division facilitates advanced study of the ecological and evolutional processes of a broad range of organisms and habitats across the globe and contributes to building a complete phylogenetic Tree of Life. Our biochemistry graduate degrees prepare students for professional careers in biochemical research and teaching in the areas of cell and molecular biology; virology; plant biochemistry; enzymology; protein/DNA interactions, structural biology and biophysics.

## Administration

Joseph F. Siebenaller, Chair	
Michael E. Hellberg, Associate Chair and Graduate Advisor	
TELEPHONE	225-578-1765
FAX	225-578-7299
E-MAIL	gradoff@lsu.edu
WEBSITE	www.biology.lsu.edu/

# Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying for graduate study.

Applications for admission are received and evaluated by the department in early January for fall admission and in mid-October for spring admission. Applicants must adhere to the application deadlines established by the Graduate School. Note that department deadlines are earlier than those of the Graduate School. It is suggested that applications for fall admission be submitted by **December 20**.

Students seeking admission must be admitted to the Graduate School at LSU and have earned one of the following degrees: BS, BA, or MS in biology, biochemistry, chemistry, or related fields. Candidates holding other degrees (e.g., DVM or MD) may also apply. Three letters of recommendation are required, and a minimum GPA from the undergraduate program of 3.0 on a scale of 4.0 is expected. Prospective students are required to take the GRE general test, and a score of 305 (verbal and quantitative combined) or better is expected. International students whose native language is not English must also submit an acceptable TOEFL, IELTS, or PTE score.

# **Financial Assistance**

Financial assistance is available to all full-time students in the form of research or teaching assistantships or fellowships. To ensure consideration for financial aid, all application materials should be submitted in accordance with deadlines established by the LSU Graduate School.

# **Graduate Faculty**

(Check current faculty listings by department here)

Christopher C. Austin (M) • Herpetology, systematics John R. Battista (M) • Mechanisms of microbial mutagenesis Mark A. Batzer (M) • Comparative genomics mobile element biology K. Adam Bohnert (6A) • Aging biology, the molecular basis for transgenerational age-resetting Terry M. Bricker (M) • Structural and functional properties of photosystem II Jeremy M. Brown (M) • Computational phylogenetics and molecular evolution Robb Brumfield (M) • Genetic resources and ornithology Michal Brylinski (M) • Computational molecular biology John T. Caprio (M) • Neurobiology, olfaction and taste Prosanta Chakrabarty (M) • Ichthyology, biogeography, systematics SeYeon Chung (6A) • Molecular and cellular mechanisms underlying tissue morphogenesis James T. Cronin (M) • Population and community ecology, plant-herbivore interactions, biological pest management Maheshi Dassanayake (M) • Comparative genomics and adaptation tostress absorptionin plants Patrick J. DiMario (M) • Interactions of nucleolar proteins involved in RNA and ribosome processing and assembly Huangen Ding (M) • Regulatory function and metabolism of iron sulfur proteins William T. Doerrler (M) • Membrane biogenesis in Escherichia coli David Donze (M) • Chromatin structure and gene expression Jessica Eberhard (3F) • Behavioral ecology, especially of parrots Brett Elderd (M) • Quantitative population, disease, and community ecology Jacob Esselstyn (6A) • Mammalogy, biogeography, and evolution Brant Faircloth (6A) • Molecular systematics, computational biology Fernando Galvez (M) • Integrative fish biology, environmental physiology, aquatic toxicology Evanna Gleason (M) • Cellular and synaptic neurophysiology of the vertebrate retina Christopher Gregg (3F) • Science education Anne Grove (M) • Protein-nucleic acid interactions, DNA bendability, RNA polymerase III from yeast Steven C. Hand (M) • Bioenergetics, environmental control of gene expression, comparative biochemistry Kyle Harms (M) • Tropical evolutionary ecology of plants and their interactions with other organisms Craig M. Hart (M) • Chromosome organization, chromatin structure, gene expression Michael E. Hellberg (M) • Marine invertebrate speciation and molecular evolution Dominique G. Homberger (M) • Functional morphology of vertebrates, especially birds Alyssa Johnson (6A) • Genetic and molecular causes of age-related degenerative diseases Naohiro Kato (M) • Visualization of genomic function dynamics Morgan W. Kelly (6A) • Marine evolution and ecology Joomyeong Kim (M) • Mammalian genomic imprinting, genome evolution and function Gary King (M) • Roles of gas-producing or consuming bacteria Laura Lagomarsino (6A) plant systematics Roger A. Laine (M) • Carbohydrate, glycolipid, and glycoprotein structural analysis Christine Lattin (6A) • Role of hormones and neurotransmitters in stress adaptation John C. Larkin (M) • Molecular plant developmental biology Yong-Hwan Lee (M) • Macromolecular x-ray crystallography, environmental regulation of cellular metabolism, protein biochemistry Vincent LiCata (M) • Protein structure and function, energy management in proteins, solvent in protein function and stability Yuchen Liu (6A) • Physiology and biochemistry of methanogenic archaea Rui Lu (M) • RNAi mediated antiviral mechanisms and transmembrane protein signaling Bing-Hao Luo (M) • Signal transduction, cancer pathology and immunology Karen P. Maruska (M) • Neural basis of social behavior James V. Moroney (M) • Role of membrane transport and CO2 fixation in photosynthesis and bioenergetics Marcia Newcomer (M) • Protein crystallography Cynthia B. Peterson (M) • Interactions among circulatory proteins and their role in regulating hemostasis, the inflammatory response, infectious disease, and the biological clock Gregg S. Pettis (M) • Mechanism of conjugation in gram positive bacteria William J. Platt III (M) • Population and community ecology, fire ecology Frederick H. Sheldon (M) • Molecular systematics of birds Joseph F. Siebenaller (M) • Comparative biochemistry of marine organisms

Aaron P. Smith (M) • Environmental control of gene regulation, biotechnology
Jacqueline M. Stephens (M) • adipocytes, obesity and Type 2 diabetes
Ryoichi Teruyama (M) • Neuroendocrinology
David J. Vinyard (6A) • Photosynthesis and reactive oxygen species formation
Anastasios Vourekas (6A) • RNA biology
Grover L. Waldrop (M) • Mechanistic enzymology and structure/function relationships in proteins
E. William Wischusen (M) • Student learning and success in biological sciences

### **Biochemistry**, M.S.

# Master of Science (MS) in Biological Sciences or Biochemistry (SBIOL) (SBCH)

The academic course plan for each student will be developed in consultation with by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

The degree requires a thesis research project. Twenty-four hours of credit at the graduate level must be earned, including a maximum of six hours of credit for the thesis/special project. The curricular requirements include:

- At least 12 hours at the 7000 level or above, excluding thesis research.
- A primary area consisting of a minimum of six hours of thesis research.
- A minimum core requirement of four credit hours in: BASC 7000 (one hour), BIOL 7921 (one hour) and two hours in various topic-oriented seminars offered by the Department (BIOL 7901, BIOL 7902, or BIOL 7946).

As a component of professional development, all graduate students must teach in the undergraduate program <u>at least one</u> <u>semester</u> during their degree program. The student must establish an academic course plan within the first year. In addition, they must pass a final exam consisting of evaluation of a written thesis and an open-to-the-public thesis defense. The student's committee will administer a final oral exam following the public defense.

## **Biochemistry**, Ph.D.

#### (PBCH)

The academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

The degree is a dissertation degree requiring the publication of a novel research project. Fifteen hours of credit at the graduate level must be earned including a maximum of nine hours of credit for the dissertation. The curricular requirements include:

- At least 15 hours at the 7000 level or above, excluding independent research, dissertation research and directed readings.
- A primary area consisting of a minimum of nine hours of dissertation research hours and nine hours in a specified field of study.
- Biochemistry PhD students are required to take (or transfer credit in) specific courses as follows to fulfill part of the requirement for 15 hours of coursework:
- One course in Proteins: Choose either BIOL 7284 or BIOL 7285.
- One course in nucleic acids biochemistry and molecular biology: BIOL 7280.
- One course in lipids and membranes or carbohydrate biochemistry: Choose either BIOL 7288 or BIOL 7290

• A minimum core requirement of seven credit hours in (BASC 7000 and six additional seminar hours distributed as two hours in BIOL 7921 and four hours in various topic-oriented seminars offered by the department (BIOL 7901, BIOL 7902 or BIOL 7946). BIOL 7921 provides a forum by which students present their research prospectus and provide an update (exit seminar) on research progress. All faculty and students are invited to attend this course. Other seminar courses vary in content and style, and are designed to keep students abreast of recent developments in the biological sciences, expose students to specialized topics and give students experience in giving presentations.

Other specific degree requirements include passing a qualifying exam at the first year and a general exam prior to the end of the third year in the program. The general exam includes a written and oral component. Prior to scheduling the final examination and submission of the written dissertation, the student is required to have a first author publication in press in a peer-reviewed journal. As a component of professional development, all graduate students are required to teach in the undergraduate program at least one semester during their degree program.

### **Biological Sciences, M.S.**

# Master of Science (MS) in Biological Sciences or Biochemistry (SBIOL) (SBCH)

The academic course plan for each student will be developed in consultation with by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

The degree requires a thesis research project. Twenty-four hours of credit at the graduate level must be earned, including a maximum of six hours of credit for the thesis/special project. The curricular requirements include:

- At least 12 hours at the 7000 level or above, excluding thesis research.
- A primary area consisting of a minimum of six hours of thesis research.
- A minimum core requirement of four credit hours in: BASC 7000 (one hour), BIOL 7921 (one hour) and two hours in various topic-oriented seminars offered by the Department (BIOL 7901, BIOL 7902, or BIOL 7946).

As a component of professional development, all graduate students must teach in the undergraduate program <u>at least one</u> <u>semester</u> during their degree program. The student must establish an academic course plan within the first year. In addition, they must pass a final exam consisting of evaluation of a written thesis and an open-to-the-public thesis defense. The student's committee will administer a final oral exam following the public defense.

### **Biological Sciences, Ph.D.**

#### (PBIOL)

The academic course plan for each student will be developed in consultation with by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

The degree is a dissertation degree requiring the publication of a novel research project. 15 hours of credit at the graduate level must be earned including a maximum of nine hours of credit for the dissertation. The curricular requirements include:

- At least 15 hours at the 7000 level or above, excluding independent research, dissertation research and directed readings.
- A primary area consisting of a minimum of nine hours of dissertation research hours.
- A minimum core requirement of seven credit hours in BASC 7000 and six additional seminar hours distributed as two hours in BIOL 7921 and four hours in various topic-oriented seminars offered by the Department (BIOL 7901, BIOL 7902, or BIOL 7946). BIOL 7921 provides a forum by which students present their research prospectus and provide an

update (exit seminar) on research progress. All faculty and students are invited to attend this course. Other seminar courses vary in content and style, and are designed to keep students abreast of recent developments in the biological sciences, expose students to specialized topics and give students experience in giving presentations.

Other specific degree requirements include passing a qualifying exam at the first year and a general exam prior to the end of the third year in the program. The general exam includes a written and oral component. Prior to scheduling the final examination and submission of the written dissertation, the student is required to have a first author publication in press in a peer-reviewed journal. As a component of professional development, all graduate students are required to teach in the undergraduate program <u>at least</u> one semester during their degree program.

# **Interdepartmental Studies in Business Administration** (Graduate Program)

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

The E.J. Ourso College of Business offers two interdepartmental graduate programs, the Master of Business Administration (MBA) and the Doctor of Philosophy (PhD) in Business Administration with concentrations in Finance, Management, Marketing, and Information Systems & Decision Sciences. Graduate programs in the college have been continuously accredited by the American Assembly of Collegiate Schools of Business since 1963.

The MBA is a professional degree designed to provide advanced business education and preparation necessary for graduates to assume leadership positions in business enterprises or in other organizations where high-level business management and analysis ability and skills are required. The program has been structured to develop the managerial and analytical skills that have become essential to effective decision-making and problem solving in complex and rapidly changing environments. At the same time, the curriculum is sufficiently flexible to permit students to elect specialized coursework that furthers individual career goals and enhances specific areas of professional interest. The program emphasizes practical applications, while recognizing that a foundation of solid theoretical knowledge is necessary for lifelong learning and growth.

The primary mission of the PhD program is to prepare graduates for successful careers in university teaching and research or for positions in government or industry that require similar analytical and research skills. Graduates currently hold academic and administrative appointments at major universities and colleges across the United States and around the world. Specific questions about the PhD programs should be directed to the graduate advisor in the appropriate department.

### Administration

Richard D. White, Dean Dan Rice, Doctoral Advisor, Marketing Rajesh Narayanan, Doctoral Advisor, Finance Rudy Hirschheim, Doctoral Advisor, Information Systems & Decision Sciences Jean McGuire, Doctoral Advisor, Management Dana Hart, Director, Flores MBA Program

# Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

# **Graduate Faculty**

(check current faculty listings by department here)

Instruction for the interdepartmental programs in business administration is provided by the graduate faculty of the E.J. Ourso College of Business's six academic departments: accounting, economics, finance, information systems and decision sciences, management, and marketing. Please see the individual departmental listings for names and research areas of the faculty.

# **Financial Assistance**

Financial assistance is available to many PhD students through the individual home department.

Support is available to MBA students in the form of scholarships and graduate assistantships. All financial support is competitively awarded on the basis of academic merit. To ensure consideration for financial aid, all application materials should be submitted in accordance with deadlines established by the LSU Graduate School, and the Flores MBA Program if applying for an MBA.

### **Business Administration, MBA**

#### (MBADM)

## The Flores Master of Business Administration Program

Dana Hart, Director of Flores MBA Program

Leah Whitmire, Associate Director, Enrollment and Academic Services

Bridget Conrad, Assistant Director, Communications and Alumni Affairs

Nioz Rafii-Tabrizi, Coordinator of MBA Student Engagement and Outreach

Emmanual Owuor-Smith, MBA Program Coordinator

Lisa Smith, Business Manager

TELEPHONE

225-578-8867 225-578-2421

FAX

#### E-MAIL

#### WEBSITE

www.lsu.edu/business/mba/index.php

Seven distinct paths lead to the MBA degree: the 17-month Executive (EMBA), the 22-month Professional (PMBA), the 22-month full-time MBA, the 11-month full-time MBA for business majors only, the 18 to 27-month Online MBA (OMBA), the five-year joint IE/MBA, and the four-year cooperative JD/MBA program (which awards both a Bachelor of Civil Law (BCL) and a Juris Doctorate (JD). All Flores MBA programs are cohort based programs with specific course requirements.

The Flores Executive MBA Program (EMBA) is designed for working professionals who are preparing for positions in executive management or ownership and can earn their degree while continuing their current employment. EMBA students generally meet every other Friday and Saturday for 17 months. The program includes a two, one-week international residency trips and executive coaching. Tuition and MBA fees cover tuition, books, materials, parking, and international residency.

The Flores Professional MBA Program (PMBA) offers evening classes in a flexible format and accommodates the schedules of professionals with at least three years of full-time work experience who are preparing for management positions. PMBA students meet on campus over a continuous, 22-month period. Tuition and MBA fees cover tuition, books, materials, and parking.

The Flores MBA full-time (22-month) program offers daytime classes to persons seeking a solid managerial core. The program encourages summer internship between the two years of study. Students study a specially designed core curriculum and take additional electives in one or more areas of specialization.

The Flores MBA full-time (11-month) is for business majors only. The program offers daytime classes to persons seeking to expand their skills obtained in a business undergraduate program. Students study a specially designed core curriculum and take additional electives in one or more areas of specialization.

The JD/MBA dual degree program offers a unique combination of courses that count toward both degrees, resulting in a Bachelor of Civil Law (BCL), a Juris Doctorate (JD), and a Master of Business Administration (MBA). Students attend classes for four years. Admission to the MBA program is selective. Applicants must complete a formal application, submit scores from the Graduate Management Admission Test (GMAT), and submit transcripts from each college or university attended. Applicants must also apply to the Paul M. Hebert Law Center.

The LSU Online Flores MBA Program (OMBA) is designed for working professionals with a minimum of three years of postbaccalaureate, professional work experience who either live out-of-state or their lifestyle does not allow them the opportunity to attend the campus-based professional or executive programs. These students learn on a part-time basis while working. Students take one to two courses per seven-week module and can graduate in 18 to 27 months.

Common across all of the Flores MBA Program formats are cohort-based classes with a 33 credit-hour 7000-level core BADM course requirement that is taken in lock-step fashion. The following courses are required for all formats (except the 11-month format) and constitute the thirty-three credit hour MBA core requirement: BADM 7020, BADM 7030, BADM 7050, BADM 7060, BADM 7070, BADM 7090, BADM 7100, BADM 7120, BADM 7140, BADM 7190, and BADM 7200. For the 11-month format six courses are waived because only business majors are accepted into the program: The reduced core for the 11-month format consists of BADM 7070, BADM 7090, BADM 7100, BADM 7100, BADM 7120, BADM 7120, BADM 7190.

In addition, each of the program formats has the following requirements:

- Full-time 22-month Format: 52 total credit hours required including the thirty-three credit hour MBA core (see above), four credits of BADM 7010 (1 credit each of four sequential semesters), and fifteen credit hours of approved MBA electives.
- Full-time 11-month Format: six credits of foundation review at the beginning of the program during the summer.
- PMBA/EMBA/OMBA Formats: 42 total credit hours required including the thirty-three credit hour MBA core (see above), and nine credits of approved MBA elective credit.
- JD/MBA Format: If accepted into both programs, JD/MBA candidates are required to take the same thirty-three credit hour MBA core (see above) plus two credits of BADM 7010, six credits of approved MBA electives, and at least four approved transfer credits from the Law School.

Please refer to the following website for additional details about the program: www.lsu.edu/business/mba/index.php

### **Business Administration, MBA (Joint 3/2 BSIE Program)**

#### Joint 3/2 - BSIE/MBA Program

#### Freshman Year

- CHEM 1201 General Chemistry I (3)
- CHEM 1202 General Chemistry (3)
- CM 1020 Engineering Graphics for Mechanical Engineering (2)
- IE 1002 Industrial Engineering Fundamentals (3)
- IE 2400 Methods and Systems Engineering (3)
- ENGL 1001 English Composition (3)
- MATH 1550 Analytic Geometry and Calculus I (5)
- MATH 1552 Analytic Geometry and Calculus II (4)
- PHYS 2110 Particle Mechanics (3)
- PHYS 2108 Introductory Physics Laboratory (1)
- CMST 1061 Fundamentals of Communication (3) or
- CMST 2060 Public Speaking (3)

#### Total Hours: 33

#### Freshman Summer and Intersessions

- PHYS 2112 Fluids, Thermodynamics, Waves, and Modern Physics (3)
- General Education arts, humanities, social sciences course (6)

#### Total Hours: 9

#### Sophomore Year

- BIOL 1001 General Biology (3) or
- BIOL 1201 Biology for Science Majors I (3)
- IE 3201 Principles of Engineering Economy (3)
- CE 2450 Statics (3)
- ECON 2030 Economic Principles (3)
- EE 2950 Comprehensive Electrical Engineering (3)
- IE 2060 Introduction to the Use of Computers (3)
- IE 3302 Engineering Statistics (3)
- MATH 2090 Elementary Differential Equations and Linear Algebra (4)
- ME 2733 Materials of Engineering (3)
- ME 3633 Manufacturing Processes & Methods (3)

#### Total Hours: 31

#### Sophomore Summer and Intersessions

- General Education arts, humanities, social sciences course (6)
- IE Tech Elective A (3)

#### Total Hours: 9

#### Junior Year

#### (take GMAT, apply to MBA)

- CE 3400 Mechanics of Materials (3)
- IE 3520 Supply Chain Logistics I (3)
- IE 4362 Advanced Engineering Statistics (3)
- IE 4453 Quality Control & Six Sigma (3)
- IE 4461 Human Factors Engineering (3)
- IE 4516 Plant and Systems Design (3)
- IE 4113 Project Management (3) or
- ISDS 4113 Management of Information Systems Projects (3)
- IE 4530 Lean Manufacturing Systems (3) (also counts as MBA elective)
- IE 4425 Information Systems Engineering (3) (also counts as MBA elective)
- IE 4520 Supply Chain Logistics II (3) (also counts as MBA elective)
- ENGL 2000 English Composition (3)

#### Total Hours: 33

#### Fourth Year - Fall

- BADM 7010 Emerging Business Issues and Practices in a Global Economy (1)
- BADM 7020 Managerial Statistics (3)
- BADM 7030 Financial Accounting (3) (also counts as IE Tech Elective B)
- BADM 7100 Marketing Management (3)
- IE 4597 Industrial Engineering Capstone Design I (2)

#### Total Hours: 12

#### Fourth Year - Spring

- BADM 7010 Emerging Business Issues and Practices in a Global Economy (1)
- BADM 7120 Operations Management (3)
- BADM 7060 Elements of Cost Management (3)
- BADM 7090 Financial Management (3) (also counts as IE Tech Elective B)

• IE 4598 Industrial Engineering Capstone Design II (2)

#### Total Hours: 12

#### Award Bachelor of Science in Industrial Engineering

#### Fourth Year - Summer

(after graduation with BSIE)

• BADM 7000 Internship in Business Administration (3)

#### Total Hours: 3

#### Fifth Year - Fall

- BADM 7010 Emerging Business Issues and Practices in a Global Economy (1)
- BADM 7200 Economic Environment of the Firm (3)
- BADM 7050 Information Systems (3)
- BADM 7070 Understanding Behavior in Organizations (3)
- MBA Elective (2)

#### Total Hours: 12

#### Fifth Year - Spring

- BADM 7010 Emerging Business Issues and Practices in a Global Economy (1)
- BADM 7190 Strategic Management (3)
- BADM 7140 Legal Environment of Business (3)

#### Total Hours: 7

#### Award Masters of Business Administration

#### **Business Administration, Ph.D.**

#### (PBDM)

Concentrations in Finance (GFIN), Information Systems & Decision Science (ISDS), Management (GMGT), Marketing (GMKT)

Each doctoral program is individually tailored to the student as a function of previous graduate coursework and career objectives. Programs are designed to ensure thorough theoretical and methodological training in the student's chosen discipline, but are sufficiently flexible to provide a range of major and minor field options. Doctoral study is fulfilled in a variety of ways, primarily through coursework, independent reading, and dissertation research, but also through informal "brown bag" seminars, visiting faculty colloquia, and participation in professional conferences and symposia. Doctoral students are expected to work closely with each other and with the college's graduate faculty and are encouraged to collaborate on research of shared interest.

Although specific coursework requirements vary from concentration to concentration and student to student, all doctoral students must satisfy the following curriculum requirements:

- major field of specialization (finance; information systems and decision sciences; management; or marketing)
- minor field
- supporting field
- breadth of study in business administration (breadth of study course requirement may be satisfied by prior coursework in the business disciplines and need not count toward the Ph.D. degree)
- research methodology requirement

At a minimum, students must complete 54 hours of coursework and dissertation credit beyond the baccalaureate degree requirements.

#### **Specializations**

# Doctor of Philosophy (PhD) in Business Administration with a concentration in Finance (PBADM)(GFIN)

The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

The degree is a dissertation degree requiring a dissertation. Fifty-four hours of credit at the graduate level must be earned. The curricular requirements include:

- At least 54 hours at the 7000 level or above
- A primary area consisting of a minimum of 18 hours of earned credit in Finance
- A minor area consisting of a minimum of 12 hours of Economics

The student must pass a general exam consisting of a written examination and successful defense of his/her dissertation.

Please refer to two websites for (1) additional details about the program (business.lsu.edu/finance/Pages/PhD-Finance.aspx) and (2) the typical course work completed during the four year program (business.lsu.edu/finance/Pages/PhDCurriculum.aspx).

#### Doctor of Philosophy (PhD) in Business Administration with a concentration in Information Systems and Decision Sciences (PBAIS)

The PhD program (PhD in business administration with a concentration in ISDS) is designed for full-time study and involves 60 credit hours at the graduate level. The program consists of 12 hours breadth of study in the four business disciplines: accounting, finance, marketing, and management; 12 hours of major field core courses; 9 semester hours in a minor area; 12 hours of research methodology; 6 semester hours in a supporting area; and 9 hours of dissertation studies. The breadth of study course requirement may be satisfied by prior undergraduate or graduate coursework in the four business areas. Students should plan to spend two academic years (fall and spring) completing coursework and spend the summer working on independent research projects under their advisor's supervision. The specific departmental-level academic course plan must be approved by the student's advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied. Upon completion of the coursework, excluding breadth of study, the candidates must pass written and oral comprehensive examinations and design, implement, and complete an original dissertation under the supervision of an ISDS faculty member. Completion of the dissertation usually takes 12 to 18 months. Overall, the PhD program normally requires four years to finish.

Please refer to two websites for (1) additional details about the program (business.lsu.edu/Information-Systems-Decision-Sciences/Pages/PhD.aspx) and (2) the typical coursework completed during the four year program (https://www.lsu.edu/business/sdeis/academics/phd/curriculum.php).

# Doctor of Philosophy PhD in Business Administration, concentration in Management (PBDM) (GMGT)

The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

The degree is a dissertation degree requiring a dissertation. Fifty-seven hours of credit at the graduate level must be earned, including a minimum of nine hours of credit for the dissertation.

The curricular requirements include:

- At least 57 hours at the 7000 level or above including pre-dissertation/dissertation research coursework.
- Up to nine hours of breadth of study courses in an appropriate business discipline as determined by the department. This requirement can be fulfilled with prior coursework and may be (although not required to be) included in the 57 course hour total.
- A primary area consisting of a minimum of 21 hours of earned credit in a specified field of study.
- Included in the primary area of study is a minimum core requirement of 15 credit hours in management core courses required of all PhD students: MGT 7301, MGT 7600, MGT 7800, and MGT 7811.
- A supporting area with a minimum of 12 hours of graduate level courses. Although students can select their supporting area, research methods is commonly recommended.
- A research tool requirement, usually met by successfully completing a two term sequence in basic statistics.
- Must pass a general/qualifying exam consisting of a written exam and a comprehensive oral exam.
- Successful completion and defense of the dissertation.

Please refer to two websites for (1) additional details about the program (business.lsu.edu/Management/Pages/PhD-Management.aspx) and (2) the typical coursework completed during the four year program (business.lsu.edu/management/Pages/PhD-Curriculum.aspx).

# Doctor of Philosophy (PhD) in Business Administration with a concentration in Marketing (PBDM)(GMKT)

The PhD program in business administration with a concentration in marketing is a year round program (fall, spring, and summer) for full-time study. The program consists of 24 semester hours of major marketing coursework, 15 semester hours of elective coursework, 12 semester hours of "common body of knowledge" coursework covering all other business disciplines (may be waived with an approved Master's degree), and 12 semester hours of dissertation coursework for a total of 63 hours. Students spend two academic years (fall and spring) completing coursework and devote summer terms to advancing their research with fellow doctoral students and faculty members. Upon completion of major marketing coursework, students must pass a written comprehensive (qualifying) exam of major marketing coursework. Upon completion of 24 semester hours of major marketing coursework, students must of major marketing coursework, students must pass an oral exam. Each PhD candidate is also required to design, implement, and complete an original dissertation under the supervision of a marketing faculty member. Overall, the PhD program normally requires four years to complete.

Please refer to two websites for (1) additional details about the program

(https://www.lsu.edu/business/marketing/academics/phd/index.php) and (2) the typical coursework completed during the four year program (https://www.lsu.edu/business/marketing/academics/phd/curriculum.php).

### **Dual Degree: JD/MBA**

Students interested are encouraged to visit the individual program site.

#### • JD/BCL-MBA

LSU and the Paul M. Hebert Law Center offer several dual degree programs, allowing a student to earn both the JD/BCL and a master's degree.

Students enrolling in the dual degree programs must be admitted separately to the LSU Graduate School and the Law Center. Students should consult with the admissions office of each institution prior to enrollment.

Each program has specific requirements, which can be found by visiting the website listed above.

Students successfully completing the program listed above will receive two degrees, a JD/BCL awarded by LSU's Hebert Law Center and a master's degree awarded by LSU.

Students wishing to pursue dual degrees must complete and submit the "Request for Dual Degree" form.

# **Chemical Engineering (Graduate Program)**

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

The Cain Department of Chemical Engineering (ChE) originated from the Audubon Sugar School (1897) and our graduate program was initiated in 1908. Today, the Cain Department of Chemical Engineering is a nationally recognized leader in education and research in the areas of chemical manufacturing, fuel processing, energy, environmental engineering, biochemical engineering, advanced computation, process systems engineering, catalysis, and materials. Graduate students have access to state-of-the-art laboratory facilities and equipment, extensive experimental and diagnostic facilities, and advanced computing systems. After graduation, chemical engineering graduates engage in careers in academia or national labs and industry research.

## Administration

John Flake, Chair	
Michael G. Benton, Director of Graduate Studies	
Rachel Landry, Coordinator of Graduate Studies	
TELEPHONE	225-578-1426
FAX	225-578-1476
E-MAIL	relandry@lsu.edu
WEBSITE	lsu.edu/eng/che

### Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts (along with an English translation version for non-English speaking universities) from each and every institution attended, official GRE scores (sent directly from ETS to the LSU Graduate School code 6373), official TOEFL, IELTS, or PTE scores (for international students whose native language is not English), and other materials that come

from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

In addition to the documents and scores required by the Graduate School, the Department of Chemical Engineering requires applicants to submit the following items: a statement of purpose, a current resumé/CV, and a minimum of three letters of recommendation (no form required). A writing sample is not required by our department but may be submitted if the applicant so desires. All of these additional items should be submitted electronically through the Graduate School admission system. Direct mailing of these items is discouraged.

Applicants must adhere to the application deadlines established by the Graduate School and the department. Applications for the summer term are strongly discouraged. International students are strongly encouraged to apply earlier than established deadlines to allow sufficient time for application review and processing of I-20 paperwork. Complete applications received by **January 1** will be given first consideration.

Meeting the minimum admission requirements established by the Graduate School does not necessarily ensure acceptance into the program. Applications for admission are evaluated by the department graduate admissions committee on a competitive basis. Each applicant is assessed for success at the graduate level, taking into consideration academic credentials, undergraduate preparation, research skills, industry experience, recommendations, GRE scores, TOEFL, IELTS, or PTE scores (for international students whose native language is not English), and any other information that can contribute to the review. Program admission is also dependent on the availability of department funding, office/laboratory space, and faculty interest.

## **Financial Assistance**

Financial assistance is available to well-qualified students through the department or other units in the form of research or teaching assistantships and/or fellowships and is awarded at the discretion of the department graduate admissions committee following the complete evaluation of the student's application record. To ensure consideration for financial aid, all application materials should be submitted in accordance with deadlines established by the LSU Graduate School and the department. Students desiring financial support should apply early, have all requested documents sent to the department, and fully communicate their own status and needs.

# **Graduate Faculty**

(Check current faculty listings by department here)

Christopher G. Arges (6A) • Electrochemical engineering, membrane separations, lithography, polymer self-assembly, waterenergy nexus Michael G. Benton (M) • Genomics, biochemical engineering, metabolic engineering, biosensors Bhuvnesh Bharti (6A) • Nanoscience, colloids and surface science, soft matter and complex fluids Armando B. Corripio (EM) • Process control, mathematical modeling, simulation, optimization, computer-aided process design Kunlun Ding (6A) • Catalysis, materials chemistry, spectroscopy Kerry M. Dooley (M) • Heterogeneous catalysis, high-pressure separations James Dorman (6A) • Electron transport and recombination, surface chemistry, energy efficient materials, nanomaterials, energy conversion John C. Flake (M) • Electrochemical processing and materials, energy conversion and storage, microelectronic device fabrication Gregory L. Griffin (M) • Electrochemical processing and materials, heterogeneous catalysis, CO2 utilization Douglas P. Harrison (EM) • Reaction engineering, kinetics of gas-solid reactions F. Carl Knopf (EM) • Supercritical fluid extraction, ultrafast kinetics Edward McLaughlin (EM) • Thermodynamic and transport properties, high pressure gas solubilities, statistical mechanics, properties of synfuels Kevin Michael McPeak (6A) • Photocatalysis, plasmonic materials, nanoscale chirality Adam T. Melvin (6A) • Biochemical engineering, biosensors, microfluidics, point of care diagnostics, single cell analysis,

chemical biology

K. Nandakumar (M) • Computational Fluid Dynamics, modeling of multiphase flows, Process Innovation
Ralph Pike (EM) • Fluid dynamics, reaction engineering with chemical reactions, optimization
Geoffrey L. Price (EM) • Heterogeneous catalysis, surface chemistry, solid state spectroscopy, zeolites
Danny D. Reible (EM) • Transport phenomena in the environment and in polymers, fluid mechanics
Jose A. Romagnoli (M) • Process Systems Engineering, optimization
William A. Shelton (M) • Catalysis, chemical dynamics, surface chemistry, alloy theory
James J. Spivey (M) • Catalysis
Arthur M. Sterling (EM) • Fluid dynamics and heat transfer, combustion, laser diagnostics, hazardous waste incineration
Louis J. Thibodeaux (EM) • Chemodynamics, hazardous waste transport and management
Karsten E. Thompson (M) • Pore-scale and multiscale modeling of transport in porous media, computational methods
Kalliat T. Valsaraj (M) • Environmental chemical engineering, applied surface chemistry, environmental transport, mass transfer separation processes
Mary Julia Wornat (M) • Fuels, pyrolysis, combustion
Ye Xu (6A) • Computational heterogeneous catalysis and electrocatalysis, surface chemistry, energy conversion and storage

### **Chemical Engineering, M.S.CHE**

#### (MCHE)

**The Master of Science in Chemical Engineering (ChE)** is available with either a thesis or non-thesis option. Whenever practicable, students are encouraged to pursue the thesis option, and it is only this option for which financial aid is available from the department. The thesis option is composed of 24 credit hours of formal coursework and a six credit thesis (CHE 8000) while the non-thesis option is composed of 36 credit hours of formal coursework and a comprehensive examination. Regardless of their program option, all ChE MS students must complete the chemical engineering graduate core program, CHE 7110 Mathematical Methods in Chemical Engineering (3), CHE 7120 Chemical Engineering Thermodynamics (3), CHE 7130 Fundamentals of Heat and Mass Transport (3), and CHE 7140 Chemical Reactor Design Methods (3), or equivalents.

Students in the non-thesis MS program must pass a written comprehensive examination within one year of their enrollment. Students in the thesis MS program must pass a final examination consisting of a comprehensive oral examination.

The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

Students can transfer a maximum of nine hours of coursework to LSU for the MS degree from another US institution with a maximum of two core courses eligible for transfer. Every credit transfer is at the discretion of the Director of Graduate Studies.

#### Chemical Engineering, Ph.D.

#### (PCHEN)

#### The Doctor of Philosophy in Chemical Engineering (ChE) from LSU requires 24 hours of credit in dissertation

**research** and a minimum of 30 hours of credit at the graduate level. A minimum of 18 hours of credit in ChE courses at the 7000 level or above are required, exclusive of any type of independent studies credit except for special project credit earned. The remaining 12 hours of coursework can include graduate level courses in any department and may constitute a formal minor or an informal collection of courses of interest. Completion of the chemical engineering graduate core program, CHE 7110 Mathematical Methods in Chemical Engineering (3), CHE 7120 Chemical Engineering Thermodynamics (3), CHE 7130 Fundamentals of Heat and Mass Transport (3), and CHE 7140 Chemical Reactor Design Methods (3), or equivalents, is required.

Students in the PhD program must pass a written qualifying examination within one year of their enrollment. Within one year of successfully passing the qualifying examination, the student forms an examining committee and takes the general examination,

which is an oral defense of a written plan for doctoral research. A final examination must also be passed. The final examination is an oral defense of the doctoral dissertation.

The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

Students already holding a master's degree in chemical engineering can transfer up to nine hours of coursework, with a maximum of two core courses eligible for transfer. Every credit transfer is at the discretion of the Director of Graduate Studies. A minimum of six hours of coursework numbered 7300 or greater must be taken at LSU, regardless of the transferred credit.

# **Chemistry (Graduate Program)**

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

The Department of Chemistry includes 30 research faculty, approximately 125 graduate students, and 22 support staff members. Research opportunities are offered in analytical, biological, computational, environmental, inorganic, macromolecular, materials, organic, nano and physical chemistry. The PhD program promotes independent study and research. Extensive collaboration with local industrial research laboratories enriches the educational experience and enhances postgraduate job opportunities.

# Administration

Dr. Michael L. Cherry, Chair Dr. John A. Pojman, Director of Graduate Studies TELEPHONE 225-578-3466 E-MAIL chadv@lsu.edu WEBSITE chemistry.lsu.edu

# Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803.

Successful applicants must meet the requirements for admission to the Graduate School and must also demonstrate a strong background and interest in chemistry. A detailed description of admission procedures and general regulations can be obtained from the departmental website.

# **Financial Assistance**

Fellowships, teaching assistantships, research assistantships, and enrichments are available to qualified PhD students on a competitive basis. Four-year Board of Regents Graduate Fellowships and Economic Development Assistantships (EDA) are available for superior students; these range from \$25,000 to \$32,000 per year. Teaching assistants instruct undergraduate laboratories and spend about 20 hours per week performing these and other teaching duties. Research assistantships are available to advanced students through grants obtained by individual faculty members. The average graduate assistantship salary is approx. \$25,000 per year.

# Facilities

We have excellent facilities and instrumentation including state-of-the-art NMR, mass spectrometry, X-ray crystallography and a Polymer Analysis Laboratory (PAL) within the Department. The Shared Instrumentation Facility (SIF) is located on the first floor of CMB and is particularly strong in microscopy. We have a Biotechnology Laboratory located in the AgCenter that provides excellent services. Across town we have the Center for Advanced Microstructures & Devices (CAMD) with various synchrotron beamlines. Further information is available at the department website.

# **Graduate Faculty**

(check current faculty listings by department here)

Leslie G. Butler (M) • Solid state NMR and 3-D tomography studies for materials science Frank K. Cartledge (EM) • Environmental chemistry and hazardous waste Matthew Chambers (6A) Synthetic Inorganic Chemistry Bin Chen (M) • Nucleation and biomimetic material design, structure-property relationships in materials Robert L. Cook (M) • Environmental chemistry of soils and waters, including biological entities William H. Daly (EM) • Polymeric materials based on polysaccharides Randy Duran (M) • Macromolecular chemistry; surface chemistry of amphiphilic materials Noemie Elgrishi (6A) Environmental chemistry and energy storage Jayne C. Garno (M) • Analytical chemistry, scanning probe microscopy, nanofabrication, surface science S. Douglass Gilman (M) • Bioanalytical chemistry, microfluidics Louis Haber (M) • Physical chemistry, ultrafast and nonlinear spectroscopy of nanomaterials Brian J. Hales (EM) • Biophysical Randall W. Hall (EM) Rendy Kartika (M) • Organic chemistry, synthetic methodology, complex molecules synthesis Neil R. Kestner (EM) Revati Kumar (6A) • Physical Chemistry; computational chemistry; modeling of novel materials - energy storage and catalysis Daniel Kuroda (6A) • Physical chemistry, two-dimensional infrared laser spectroscopy Semin Lee (6A) Multifunctional Organic materials Kenneth A. Lopata (6A) • Physical chemistry, time-domain quantum chemistry simulations Megan A. Macnaughtan (M) • Biophysical chemistry of proteins, NMR spectroscopy, bioanalytical chemistry Luigi G. Marzilli (M) • Bioinorganic chemistry, inorganic medicinal chemistry Andrew W. Maverick (M) • Nanoporous transition metal complexes, energy-related inorganic chemistry Robin L. McCarley (M) • Bioanalytical chemistry, drug delivery, cancer detection Sean P. McGlynn (EM) Kermit K. Murray (M) • Imaging mass spectrometry, laser ablation sampling for proteomics and genomics Evgueni E. Nesterov (M) • Functional organic materials and molecular devices, physical-organic chemistry, photochemistry John A. Pojman (M) • Macromolecular chemistry, kinetics, physical chemistry of polymerization Erwin D. Poliakoff (EM) • Photoelectron spectroscopy and x-ray spectroscopy of nanoscale materials William A. Pryor (EM) Justin R. Ragains (M) • Visible photochemistry and electron transfer for small molecule synthesis and thin film growth James W. Robinson (EM) Paul S. Russo (EM) Gerald J. Schneider (M) • Soft matter and neutron scattering

Kevin M. Smith (M) • Synthesis, properties and applications of porphyrin systems
Steven A. Soper (EM)
David A. Spivak (M) • Molecularly imprinted polymers, engineered polymer soil surrogates
George G. Stanley (M) • Bimetallic cooperativity in homogeneous catalysis, hydroformylation, molecular modeling
Carol M. Taylor (M) • Organic synthesis and bioorganic chemistry with a focus on post-translationally modified peptides
M. Graça H. Vicente (M) • Fluorescent porphyrin-based macrocycles for medicine
Tuo Wang (6A) Development and application of solid-state nuclear material resonance spectroscopy
Isiah M. Warner (M) • Optical spectroscopies, biochemical and bioanalytical applications of material science
Steve Watkins (EM)
Weiwei Xie (6A) • Solid state materials and their physical properties
Donghui Zhang (M) • Polymer synthesis and characterization, polymerization catalysis, structure-property relationship

### Chemistry, M.S.

Two MS programs are also available. One requires only coursework; the other requires a research thesis.

### Chemistry (SCHEM) or (PCHEM)

Placement examinations and interviews with faculty committees are used to determine fields of interest and academic preparation. All PhD students must pass six cumulative examinations and a general examination composed of a research proposal and a comprehensive outline of independent research completed and planned.

### Chemistry, Ph.D.

#### Chemistry (SCHEM) or (PCHEM)

Placement examinations and interviews with faculty committees are used to determine fields of interest and academic preparation. All PhD students must pass six cumulative examinations and a general examination composed of a research proposal and a comprehensive outline of independent research completed and planned.

# **Civil & Environmental Engineering (Graduate Program)**

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

The first awarded graduate degree at LSU was a master's degree in civil engineering awarded in 1869. Today, the Department of Civil & Environmental Engineering's graduate program is characterized by its work in the areas of coastal engineering, environmental engineering, and infrastructure engineering. Graduate and research programs are organized within this framework into six focus areas: environmental engineering, geotechnical engineering, structural engineering, mechanics of materials, transportation engineering, and water resources/coastal engineering. All areas have excellent research facilities and equipment to conduct basic and applied research. Projects of local, regional, national and international importance are underway. In the last five years, graduate student enrollment has ranged from 110-130.

# Administration

George Z. Voyiadjis, Chair Ayman M. Okeil, Graduate Program Advisor Madison Lane, Graduate Program Coordinator TELEPHONE E-MAIL WEBSITE

### 225-578-9170 ceegrad@eng.lsu.edu www.lsu.edu/eng/cee/

# Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed directly to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Applicants must adhere to the application deadlines established by the Graduate School. Once an application is complete, applications for admission are evaluated by the department. The faculty review deadlines can be found on the graduate section of the department website (www.lsu.edu/eng/cee/academics/graduate/index.php). Applications for the summer term are strongly discouraged. International students are strongly encouraged to apply earlier than established deadlines to allow sufficient time for application review and processing of I-20 paperwork for international students.

The LSU Graduate School requires that students submit directly to its office the following items: official transcripts (along with an English translation version for non-English speaking universities) from each and every institution attended, official GRE scores (sent directly from ETS to the LSU Graduate School code 6373) and international students whose native language is not English must also submit an official TOEFL, IELTS, or PTE score.

In addition to the documents and scores required by the LSU Graduate School, the Department of Civil & Environmental Engineering requires applicants to submit the following items: three letters of recommendation (no form required), and a statement of purpose. Also, applicants are encouraged (but not required) to submit a resumé. A writing sample is not required by our department either but may be submitted if the applicant so desires. All of these additional items should be submitted electronically through the Graduate School's admission system. Direct mailing of these items is discouraged.

Please note that meeting the minimum admission requirements established by the Graduate School does not necessarily ensure acceptance into the department's graduate program. The departmental faculty reviews each applicant's record to assess potential success at the graduate level, taking into consideration GRE scores, undergraduate and graduate preparation and grade-point averages, letters of recommendation, TOEFL, IELTS, or PTE scores (for international applicants), and any other supplementary information provided by the applicant. When all admission requirements are met, the faculty may recommend regular admission. If an applicant does not meet all requirements, he or she may be admitted provisionally. Applicants must have GRE score of 300 minimum (1100 on the old GRE scoring scale) for regular admission and 294 minimum (1000 on the old GRE scoring scale) for probationary admission to our graduate program. For the TOEFL, applicants must have a score of at least 550 on the paper-based test, a 213 on the computer-based test, or a 79 on the Internet-based test, or an IELTS score of 6.5, or a PTE score of at least 59; a TOEFL or IELTS score equivalent to 575 is required to be eligible for financial assistance.

# **Financial Assistance**

Financial assistance is available to select students. For the Department of Civil & Environmental Engineering Graduate Program, financial assistance is primarily available in the form of graduate research or teaching assistantships. Amounts of stipends for

research and teaching assistants vary from year to year, and awardees are determined during the admission review process. Thus, it is important that all application materials be submitted in accordance with the LSU Graduate School and department deadlines. Assistantships at LSU are competitive with those of other large state universities. Many assistantships qualify the student for waiver of all in-state and out-of-state fees except for university fees.

# **Graduate Faculty**

(check current faculty listings by department here)

Murad Yusuf Abu-Farsakh (3F) • Geosynthetic reinforcement of soils, subgrades, and base materials; Advanced in situ testing to evaluate soil properties; Numerical modeling of geotechnical and pavement engineering problems; Analysis, design, instrumentation, testing and LRFD calibration of deep foundations.

Donald Dean Adrian (EM) • Hydrology, mathematical modeling, wetlands, groundwater resources, environmental engineering Aly Moussad Aly Sayed (6A) • Experimental/Computational multiscale/multiphysics assessment of wind, rain, and wave impact on structures, performance and resiliency enhancement of new and existing infrastructure for wind, waves, and earthquakes Michele Barbato (M) • Structural engineering and dynamics, modeling/analysis of structural and geotechnical systems and stochastic process, structural retrofitting using fiber reinforced polymers, earthquake engineering, random vibration theory, computational reliability analysis

Chunsheng Cai (M) • Bridge engineering, prestressed concrete, wind engineering, structural dynamics, structural performance evaluation and rehabilitation

Shengli Chen (6A) • Theoretical and computational geomechanics, pile foundation and soil structure interaction, poromechanics and constitutive modeling of geomaterials, hydraulic fracturing

Zhi-Qiang Deng (M) • Environmental fluid mechanics, environmental hydrology, river engineering

Mostafa A. Elseifi (M) • Pavement modeling and design, field and laboratory characterization of asphalt mixtures

Vijaya K. Gopu (EM) • Structural engineering and structural mechanics

Maria Teresa Gutierrez-Wing (3F) • Bioplastics, nanomaterials for environmental applications, microalgal cultures (modeling, bioproducts, biofuels), aquaculture, water quality

Scott C. Hagen (M) • Coastal engineering & hydroscience, tide, wind-wave and hurricane storm surge modeling, coastal dynamics of sea level rise, biogeodynamic modeling

Navid H Jafari (6A) • soil mechanics and behavior, coastal and riverine protection infrastructure, erosion control, coastal restoration, subsidence, earth and man-made embankment stability, transient and unsaturated fluid flow, waste containment systems, geosynthetics, transportation and environmental geotechnics

Ronald F. Malone (EM) • Recirculating aquaculture, eutrophication, water quality modeling, wastewater treatment John B. Metcalf (EM) • Accelerated pavement testing, low-cost roads, non-standard materials, pavement design and quality control

William M. Moe (M) • Environmental Engineering, biological waste treatment, biofilm processes, sequencing batch reactors, bioremediation, Air pollution control

Louay N. Mohammad (M) • Fundamental characterization of transportation materials, flexible pavement design and analysis, pavement instrumentation, computational and experimental mechanics

Ayman M. Okeil (M) • Bridge engineering, structural reliability, behavior of concrete structures, structural strengthening using composite materials, earthquake engineering

Celalettin Ozdemir (6A) • Coastal and fluvial sediment transport, multiphase flow modeling, environmental fluid mechanics, turbulent and transitional flows

John H. Pardue (M) • Biological remediation, wetlands, environmental chemistry, fate and transport of contaminants, environmental engineering

Roger K. Seals (EM) • Geotechnical engineering, use and recycling of industrial by-product materials

Vijay P. Singh (EM) • Surface and subsurface hydrology, stochastic and mathematical modeling, irrigation hydraulics, entropy Samuel David Snow (6A) • Environmental photochemistry, photodegradation of PAHs, light-mediated disinfection technologies, pathogen inactivation mechanisms, adsorption interactions in aqueous systems, and multi-functional adsorbent-photocatalytic materials

Chao Sun (6A) • Structural dynamics and vibration control, hydrodynamics, fluid structure interaction, coupled dynamics of offshore floating wind turbines, multi-hazard mitigation for coastal and offshore structures, damage diagnosis and prognosis, energy harvesting

Frank Tsung-Chen Tsai (M) • Groundwater hydrology/hydraulics, contaminant fate and transport in subsurface, inverse problems, aquifer heterogeneity characterization, geostatistics, water resources systems management

Mehmet T. Tumay (EM) • Geotechnical engineering, in situ testing, soil reinforcement and improvement

George Z. Voyiadjis (M) • Multiscale modeling and simulation of material behavior and structures, microstructural characterization of materials, nanomechanics, inelastic behavior of materials, damage mechanics, dynamic failure of materials, computational mechanics, composite materials, thin films and MEMS, refined theory of plate and shells

Zimeng Wang (6A) • environmental chemistry, contaminant fate and transport, water treatment, biogeochemistry, geochemical and biogeochemical modeling, water quality

Clinton S. Willson (M) • Environmental fluid mechanics, Physical and numerical modeling of river hydrodynamics and sediment transport, high-resolution X-ray CT, multiphase flow in porous media

Chester G. Wilmot (M) • Emergency evacuation travel demand estimation, road safety research, travel survey methodology, transferability of travel demand models, prioritization procedures, and air quality research

Paul B. Wolshon (M) • Geometric highway design and traffic safety, traffic engineering and analysis, major event and emergency transportation management and operations

Zhong Wu (3F) • Accelerated pavement testing

Hongliang Zhang (6A) • Air quality, air pollution simulation and measurement, source apportionment, particulate matter, ozone, and aerosol-meteorology-climate interactions.

Xiuping Zhu (6A) • Water/wastewater treatment, environmental remediation, renewable energy generation, environmental electrochemistry

See departmental website for latest listing.

The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The master's committee will include the student's major advisor and at least two additional members of the graduate faculty, while the PhD committee will include the student's major advisor and two additional members of the graduate faculty with an additional committee member ("dean's representative") appointed by the Graduate School. More details about graduate committee formation can be found on the department graduate program website.

#### **Civil Engineering, M.S.CE**

#### (MCE)

There are two options leading to the master's degree in civil engineering. The thesis-option MS requires a minimum of 25 credit hours of approved coursework, 6 hours of thesis credit (CE 8000) and an acceptable thesis defended in a final examination. The non-thesis option MS requires a minimum of 37 hours of approved coursework (including 3 hours of master's project work, CE 7740, toward an acceptable master's report), and a comprehensive final examination. Either option requires one hour of CE 7750 included in the course credit hours. Additional curricular requirements include:

- Some concentrations within Civil Engineering may have core course requirements that must be earned. These can be found on the department graduate program website.
- At least 50% of the required minimum course credit hours must be at the 7000-level.
- At least 50% of the required minimum course credit hours must be in Civil Engineering courses.

#### Civil Engineering, Ph.D.

#### (PCE)

The PhD program in civil engineering requires passing a qualifying examination. Students entering the program with a bachelor's degree are required to earn 42 credit hours of approved coursework, 9 credit hours of dissertation credit (CE 9000), plus one credit hour of CE 7750. Students entering the program with the master's degree are required to earn 18 credit hours of approved coursework plus 1 credit hour for CE 7750, exclusive of thesis and dissertation credit. In addition to the coursework

requirements, students must pass a qualifying examination within one year of enrollment, the general examination, prepare a dissertation, and pass a final examination on the dissertation. Additional curricular requirements include:

- Some concentrations within Civil Engineering may have core course requirements that must be earned. These can be found on the department graduate program website.
- At least 50% of the required minimum course credit hours must be at the 7000-level.
- At least 50% of the required minimum course credit hours must be in Civil Engineering courses.

### **Coastal and Ecological Engineering, M.S.**

#### (SCECO)

This thesis-option MS requires a minimum of 25 credit hours of approved coursework, 6 hours of thesis credit (CE 8000), and an acceptable thesis defended in a final examination. This option also requires one hour of CE 7750 included in the course credit hours. Curricular requirements for this program include:

- A set of core courses. These can be found on the department graduate program website.
- At least 50% of the required minimum course credit hours must be at the 7000-level.
- At least 50% of the required minimum course credit hours must be in Civil Engineering courses.

# **Communication Sciences & Disorders (Graduate Program)**

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

The Department of Communication Sciences & Disorders is nationally recognized for its faculty's research in a number of areas including: articulation, fluency, language, voice, and swallowing disorders in children and adults, with concentrated areas of expertise in autism, bilingualism, English dialect variation, language, literacy, and augmentative and alternative communication interventions for children, motor speech disorders and cognitive-communicative disorders in adults with acquired neurologic diseases and disorders, stuttering, and voice disorders following laryngeal pathology. Within their particular area of expertise, faculty members study the nature and cause of clinical conditions, design and evaluate assessment tools, and investigate treatment efficacy.

PhD program graduates are in high demand by university faculties across the country and by federal and state health and education agencies seeking well-trained scholars to help guide policy development, service implementation, and program evaluation. Master's graduates are eligible for national certification as speech-language pathologists once they pass the national certification examination. Speech-language pathologists are in demand nationally.

# Administration

Janet Norris, Chair

Neila Donovan, Graduate Coordinator

TELEPHONE

225-578-2545 225-578-2995

FAX

#### WEBSITE

### Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Applications for admission are received and evaluated by the department within a month of completion of all required materials. Applicants must adhere to the application deadlines established by the Graduate School.

Students seeking admission must submit satisfactory credentials from previous study, acceptable GRE scores, and three letters of recommendation. International students whose native language is not English must also submit an acceptable TOEFL, IELTS, or PTE score.

### **Financial Assistance**

Financial assistance is available to some students. Support may be available through the student's home department or other units in the form of research or teaching assistantships. A student should contact his or her home department for more information on available assistantship positions. To ensure consideration for financial aid, all application materials should be submitted in accordance with deadlines (Departmental deadline: **February 1**) established by the LSU Graduate School.

### **Graduate Faculty**

(check current faculty listings by department here)

Hugh W. Buckingham (EM)

Hyunju Chung (6A) • Phonological development, speech sound disorders in young children, cross-linguistic research Geoffrey Austin Coalson (6A) • Fluency disorders

Neila Donovan (M) • Evidence-based assessment and treatment design for adults with acquired neurologic diseases and disorders Ellen Susan Duncan (6A) • Neuroimaging and neuromodulation in acquired language disorders

Todd Gibson (6A) • Bilingual language development and disorders, interactions between language and cognition, lexical access Daphne Ursula Hartzheim (6A) • Autism spectrum disorders, Augmentative and Alternative Communication (AAC), clinicians training, Applied Behavior Analysis (ABA) in speech-language pathology

Yunjung Kim (M) • Speech acoustics, motor speech disorders, cross-linguistic perspectives on disordered speech

Melda Kunduk (M) • Voice disorders (dysphonia), swallowing disorders (dysphagia), total laryngectomy, paradoxical vocal cord dysfunction, laryngeal high-speed endoscopy, laryngeal videostroboscopy

Janet Norris (M) • Child language and literacy intervention

Janna Oetting (M) • Child language development and disorders, specific language impairment, English dialect variation, speech and language screening and assessment

#### **Communication Disorders, M.A.**

#### (ACOMD)

The department offers the Master of Arts in communication disorders with or without a thesis. The thesis option requires 33 hours of coursework plus six hours of thesis credit. The non-thesis option requires 39 hours of coursework and successful

completion of a comprehensive examination. Required coursework is designed to enable students to satisfy requirements for professional certification in speech-language pathology.

Classes required of all students include: COMD 7281 Acquired Neurogenic Language Disorders, COMD 7282 Acquired Neurogenic Cognitive-Communicative Disorders, COMD 7381 Language and Learning Disorders, COMD 7382 Voice Disorders, COMD 7385 Neuropathologies of Speech, COMD 7480 Measurement and Diagnosis of Communication Disorders, COMD 7153 Research Design in Communication Science and Disorders, COMD 7384 Early Communicative Intervention, and COMD 7783 Dysphagia. Students must also complete six credit hours of clinical practice. Thesis students include six hours of COMD 8000 Thesis Research. Non-thesis students include a 7000-level seminar and a 7000-level elective approved by the department.

Thesis students defend their theses orally to their thesis committee members. Non-thesis students write a comprehensive examination that is evaluated by a departmental committee.

### **Communication Disorders, Ph.D.**

#### (PCOMD)

The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

The doctoral program in Communication Disorders (COMD) requires 72 hours of graduate coursework beyond the bachelor's degree. The program must have a minimum of nine hours of research tools including two graduate courses in statistics; 12 hours of dissertation work; and 51 hours of graduate coursework related to the area(s) of emphasis (i.e., child language, adult language, phonology, fluency, neurogenic disorders, speech science, or others).

The student must pass a general exam including written and oral components demonstrating knowledge of the literature in the area of concentration, research, theory, and minor area (if applicable).

### **Communication Studies (Graduate Program)**

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

Established in 1928, the LSU Department of Communication Studies is one of the oldest communication departments in the nation and the first in the South to develop a doctoral program. Situated in a research-intensive university, the department and its faculty strive to foster the intellectual growth of each student while also attending to their development in the areas of teaching and service. Our goal is to prepare graduate students for success in their chosen profession in an environment that is innovative, stimulating, friendly, and humane.

The program is based in three inter-related areas of research interest: Interpersonal Communication, Performance Studies, and Rhetoric. Within and between areas, a broad range of courses is offered, and each student is encouraged to design a departmentallevel academic course plan that fits their interests. Course emphases include: argumentation; cognitive information processing; contemporary performance theory and practice; conversation analysis; crime and public culture; crisis communication; critical and cultural studies; critical race studies; environmental communication; family communication; feminist and gender studies; ethnography; health communication; interpersonal communication; nonverbal communication; qualitative and quantitative research methods; performance history and historiography; performance of diverse literary, oral, and other materials; persuasion; performance art; political communication; queer studies; rhetorical criticism; rhetorical theory; theories of the body, technology, and trauma; tourism studies; and visual culture and rhetoric.

# Administration

Loretta Pecchioni, Chair Bryan McCann, Graduate Advisor TELEPHONE FAX WEBSITE

225-578-4172 225-578-4828

www.lsu.edu/cmst

# Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be submitted electronically or mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. All documents submitted by or on behalf of the applicant are stored electronically and departments have access to them.

To apply to the graduate program in Communication Studies, applicants are required to complete the online application form, which includes a statement of purpose, and submit official GRE scores and transcripts of all college work. International students whose native language is not English also must submit an acceptable TOEFL, IELTS, or PTE score.

The department also requires a personal statement regarding research interests, three letters of recommendation (on letterhead and signed), and a sample of scholarly writing -e.g., a term paper or a thesis chapter. A vita or resume is welcomed but not required.

Applications for admission are received and evaluated by the department from September through May. Applications for admission and an assistantship are due by **December 31** and awarded in February for the upcoming fall semester. All applicants must adhere to the application procedures and deadlines established by the LSU Graduate School and the CMST department.

Applications for admission and an assistantship are due by **December 31** and awarded in late January or early February for the upcoming fall semester. All applicants must adhere to the application procedures and deadlines established by the LSU Graduate School and the CMST department. Admission decisions are made by the department's Graduate Admission Committee, which consists of one graduate faculty member from each of the three areas. Each committee member serves as a representative for their respective area and, as such, will consult with their area colleagues regarding graduate applications prior to meeting with the Graduate Admission Committee. Final admission and funding decisions are based on the strength of application materials and guided by the goal of equal balance of students and assistantships across the three areas. Prospective students who do not meet the requirements may be admitted provisionally on a case-by-case basis.

# **Financial Assistance**

Each year we award approximately 28 graduate assistantships to continuing and new graduate students. Our assistantships are teaching assistantships largely; we do not award research assistantships unless they are funded by a grant. For prospective students, the application documents play a key part in the decisions we make as does the availability of assistantships within the program or within the applicant's proposed area(s) of research emphasis.

# **Graduate Faculty**

(check current faculty listings by department here)

Renee Edwards (M) • Interpersonal communication, research methods, message processing Serap Erincin (6A) • Performance studies, performance and technology, performing protest Stephanie Houston Grey (7M) • Rhetoric and culture, science studies, aesthetics, trauma studies, identity Ashley Noel Mack (6A) • Rhetorical criticism, critical/cultural studies, feminist/queer theory, historical materialism Bryan J. McCann (M) • Rhetorical theory and criticism, cultural studies, race, social movements Loretta Pecchioni (7M) • Health communication, family communication, communication and aging William Saas (6A) • Rhetorical and political theory and criticism, rhetorics of finance, war, and peace Tracy Stephenson Shaffer (M) • Performance studies, ethnography, popular culture, film Patricia A. Suchy (7M) • Performance studies, film studies, Bakhtinian theory David Price Terry (M) • Performance studies, cultural studies, oral history, new media

The program offers a MA degree with a thesis, non-thesis, or professional practice option, a MA-PhD fast track program, and a PhD degree. All students develop a departmental-level academic course plan in consultation with and approved by their graduate committee. The committee consists of the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

### **Communication Studies, M.A.**

#### (ACMST)

For an MA degree <u>without</u> a thesis, a minimum of 36 course credit hours is required. The student must pass a comprehensive final exam that consists of six hours of written exams and a one hour oral exam.

For an MA degree with a thesis, a minimum of 30 course credit hours and six thesis hours (CMST 8000) are required. The student must complete a written thesis and pass a one hour oral exam.

#### The curricular requirements are:

#### **Required Core**

- CMST 7900 Introduction to Graduate Study in Communication Studies (3)
- A 7000 level seminar in Communication Theory (3)
- A 7000 level seminar in Performance Studies (3)
- A 7000 level seminar in Rhetoric (3)

#### If on assistantship:

#### **Additional Courses**

- At least 2 more courses in CMST at the 7000 level (6)
- At least 2 more courses in CMST at the 4000 or 7000 level (6)

#### Non-Thesis or Thesis Option

Non-Thesis Option

• At least 4 more courses at the 4000 or 7000 level, in or out of CMST (12)

#### **Thesis Option**

- At least 2 more courses at the 4000 or 7000 level, in or out of CMST (6)
- CMST 8000 Thesis Research (1-12 per sem.) (6 credits required)

#### 36 (37) Total Credits

#### MA-Phd Fast Track Degree in Communication Studies

To qualify for the program, the student must complete the non-thesis MA degree in  $1\frac{1}{2}$  years, beginning the PhD sequence in the  $2^{nd}$  half of their  $2^{nd}$  year.

For MA curricular requirements please see above. The PhD curricular requirements are:

#### **Required Core**

#### If on assistantship:

#### Additional Courses in CMST

- At least 2 more courses in emphasis at the 7000 level (6)
- At least 1 more course in another area at 7000 level (3)
- At least 3 more courses at the 4000 or 7000 level (6)

#### External Study Requirement:

• At least 3 courses outside of CMST (9)

#### **Additional Courses**

• At least 3 more courses in or out of CMST, at least two at the 7000 level (9)

#### **Dissertation Research**

• CMST 9000 Dissertation Research (1-12 per sem.) (9 hours; does not count towards total)

#### 72 (73) Total Credits

= 36 (37) credits + 36 MA credit

#### **Communication Studies, Ph.D.**

#### (PCMST)

#### **Required Core**

- CMST 7900 Introduction to Graduate Study in Communication Studies (3)
- A 7000 level seminar in Communication Theory (3)
- A 7000 level seminar in Performance Studies (3)
- A 7000 level seminar in Rhetoric (3)

#### If on assistantship:

#### Additional Courses in CMST

- At least 2 more courses in emphasis at the 7000 level (6)
- At least 1 more course in another area at 7000 level (3)
- At least 2 more courses in emphasis at the 4000 or 7000 level (6)

#### **External Study Requirement:**

• At least 3 courses outside of dept. (9)

#### Additional course:

• At least 1 more course in or out of CMST at 7000 level (3)

#### MA credits

(exclusive of thesis credits) 30 credits maximum

#### **Dissertation Research**

• CMST 9000 Dissertation Research (1-12 per sem.) (9 hours; does not count towards total)

#### 72 (73) Total Credits

## **Comparative Biomedical Sciences (Graduate Program)**

# **Program Overview**

The graduate program in the Department of Comparative Biomedical Sciences offers an interdisciplinary approach to conducting biomedical research as it applies to humans and animals. The goal of the program is to educate and prepare students for successful careers in academic, private industry, or government environments. Degrees granted include a PhD or MS degree in Biomedical and Veterinary Medical Sciences with focuses in cell and molecular biology, environmental health sciences,

anatomy, physiology, pharmacology, or toxicology. The school also has a DVM/PhD track for students accepted into the veterinary medicine program.

### Administration

J. Michael Mathis, Head	
Masami Yoshimura, Graduate Advisor	
TELEPHONE	225-578-9889
FAX	225-578-9895
WEBSITE	https://www.lsu.edu/vetmed/cbs/graduate_program/

## Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Applications for admission are accepted and evaluated by the department at any time, but applicants are not evaluated for admission or financial assistance until completed application materials have been received, including test scores, official transcripts, and letters of recommendation. Application should be initiated at least six months prior to anticipated entry. Applicants must adhere to the application deadlines established by the Graduate School.

Students seeking admission must submit satisfactory credentials from previous study, acceptable GRE test scores, and three letters of recommendation. Minimum criteria for admission include  $\geq$ 3.0 GPA out of 4.0 on the US system scale and a combined verbal and quantitative GRE score of  $\geq$ 302. International students whose native language is not English must also submit an acceptable TOEFL score ( $\geq$ 213 computer version or  $\geq$ 79 Internet version or  $\geq$ 550 paper version) or IELTS score ( $\geq$ 6.5), or PTE score of ( $\geq$ 59).

## **Financial Assistance**

Financial assistance is available to some students. Financial aid consists of research assistantship stipends or fellowships. The amount of the award depends on prior educational performance and awards are made on a competitive basis; financial aid is rarely awarded to MS students. Special fellowships and tuition exemption may also be available. A student should contact his/her home department for more information on available assistantship positions. To ensure consideration for financial aid, all application materials should be submitted in accordance with deadlines established by the LSU Graduate School and preferably six months prior to anticipated entry.

# **Research Facilities**

Research facilities include laboratories, instrument rooms, walk-in cold rooms, and rooms for radiolabel materials use, animal treatment, cell culture, photography, and storage. The department operates the Inhalation Research Facility, the Analytical Systems Laboratory, the Aquatic Research Facility, the Equine Medication Surveillance Laboratory, and the SVM Microscopy Center. The School of Veterinary Medicine also houses the Gene Probes & Expressions Systems Laboratory, LSU Flow Cytometry Core Facility, Veterinary Computer Resources, Veterinary Medicine Library, Division of Laboratory Animal

Medicine, Louisiana Animal Disease Diagnostic Laboratory, a Biomedical Communications Unit, and the facilities of the Veterinary Teaching Hospital.

# **Graduate Faculty**

Steven A. Barker (EM) • Analytical toxicology and the neurochemistry of hallucinogens Hermann H. Bragulla (M) • Development of skin and skin appendages in normal and diseased states Henrique Cheng (M) • Molecular mechanisms controlling stem cell differentiation and pancreatic islet hormone secretion Stephania A Cormier (M) • Neonatal respiratory immunology, inhalation exposures and host defense, respiratory tract bacterial and viral infection, and gene-environment interactions in airways disease Levent Dirikolu (M) • Pharmacokinetics, pharmacodynamics, toxicokinetics, molecular, clinical and analytical pharmacology/toxicology, and drug metabolism Tammy Renee Dugas (M) • Toxicological mechanisms of cardiovascular disease progression Joseph Francis (M) • Pulmonary and cardiovascular pathophysiology Kevin M. Kleinow (M) • Aquatic animal pharmacology and toxicology, developmental toxicology, zebrafish as genomic models for disease, Deep Horizon Charles C. Lee (M) • Neurobiological mechanisms underlying auditory processing and plasticity Shisheng Li (M) • DNA repair and mutagenesis Martha A. Littlefield (3P) • Gross anatomy, neuroanatomy, histology, acupuncture and disaster medicine J. Michael Mathis (M) • Targeted oncolytic virotherapy for breast cancer and multifunctional targeted delivery and non-invasive imaging of adenoviral vectors Alexandra Noël (6A) • Inhalation and Developmental Toxicology, electronic cigarette vapor, nanoparticles, chronic lung diseases Olalekan Ogundele (6A) • CaMKIIa-dependent hippocampal synaptic switch systems in developmental neuropsychiatric disorders Michelle L. Osborn (6A) • Functional and evolutionary anatomy, biomechanics, and 3D imaging Sonika Patial (6A) • Post-transcriptional regulation of gene expression in innate immunity, inflammation, and carcinogenesis Arthur Penn (M) • Inhalation toxicology, cardio/pulmonary responses to air pollutants, gestational exposures and adult disease Yogesh Saini (6A) • Immunobiology of genetic and environmental lung diseases George M. Strain (M) • Deafness, clinical neurophysiology, molecular genetics, and neurology Gary E. Wise (EM) • Cell and molecular biology of tooth eruption Shaomian Yao (M) • Isolation and differentiation of tissue-derived stem cells and molecular biology of stem cells Masami Yoshimura (M) • Molecular and cellular biological aspects of cyclic AMP signal transduction regulation

# **Recent Faculty Publications**

The following is a representative sample of recent faculty publications:

Levy, M., Gaschen, L., Rademacher, N., Bragulla, H. H. (2014). Technique for ultrasound-guided intraarticular cervical articular process injection in the dog. Vet. Radiol. Ultrasound, 55, 1-6.

Schoenfuss, H. L., Bragulla, H. H., Schumacher, J., Henk, W. G., George, J. C., Hillmann, D. J. (2014). The anatomy of the larynx of the Bowhead whale, Balaena mysticetus, and its sound-producing functions. Anat. Rec., 297, 1316-1330.

Levy, M., Gaschen, L., Rademacher, N., Bragulla, H. H. (2014). Technique for ultrasound-guided intraarticular cervical articular process injection in the dog. Veterinary Radiology & Ultrasound, 55(4), 435-440.

Ngoc Tran T.D., Stovall K.E., Suantawee T., Hu Y., Yao S., Yang L.J., Adisakwattana S., Cheng H. (2017). Transient receptor potential melastatin 4 channel is required for rat dental pulp stem cell proliferation and survival. Cell Prolif. Oct;50 (5). doi: 10.1111/cpr.12360

Suantawee T., Elazab S.T., Hsu W.H., Yao S., Cheng H., Adisakwattana, S. (2017). Cyanidin Stimulates Insulin Secretion and Pancreatic β-Cell Gene Expression through Activation of 1-type Voltage-Dependent Ca2+ Channels. Nutrients 9:814.

Sompong, W., Cheng, H., Adisakwattana, S. (2017). Ferulic acid prevents methylglyoxal-induced protein glycation, DNA damage, and apoptosis in pancreatic  $\beta$ -cells. J Physiol Biochem. 73(1):121-131.

Fitzpatrick, E.A., You, D., Shrestha, B., Siefker, D., Patel, V.S., Yadav, N., S. Jaligama, S., Cormier, S.A. (2017). A neonatal murine model of MRSA pneumonia. PLoS One 12(1): e0169273.

Jaligama, S., Saravia, J., You, D., Yadav, N., Lee, G.I., Shrestha, B., Cormier, S.A. (2017). Regulatory T cells and IL10 suppress pulmonary host defense during early-life exposure to radical containing combustion derived ultrafine particulate matter. Respir Res 18(1): 15.

Oyana, T.J., Podila, P., Wesley, J.M., Lomnicki, S., Cormier, S.A. (2017). Spatiotemporal patterns of childhood asthma hospitalization and utilization in Memphis Metropolitan Area from 2005 to 2015. J Asthma 54(8): 842-855.

Chakkath, T., Lavergne, S.N., Fan, T.M., Bunick, D., Dirikolu, L. (2015). Alkylation and carbamylation effects of lomustine and its major metabolites and MGMT expression in canine cells. Vet. Sci. 2(2), 52-68; doi:10.3390/vetsci2020052

Pieper, J., Dirikolu, L., Campbell, K., Li, Z., Mitchell, M. (2016). Evaluation of the effect of fluconazole on the pharmacokinetics of cyclosporin A in healthy dogs after a single dose and at steady state. J Vet Pharmacol Ther. 40, 304-308. doi: 10.1111/jvp.12352.

Collins, S.P., Labelle, A.L., Dirikolu, L., Li, Z., Mitchell, M.A., Hamor R.E. (2016). Tear film concentrations of doxycycline following oral administration in ophthalmologically normal dogs. J Am Vet Med Assoc. 249(5):508-514.

Kleinedler, J.J., Yurdagul, Jr., A., McInnis, M.C., Khandelwal, A.R., Spence, A.L., Orr, A.W., and Dugas, T.R. 2014. Resveratrol promotes endothelial cell wound healing under laminar shear stress through an estrogen receptor α dependent pathway. Am. J. Physiol. Heart Circ. Phys. 306(6):H797-806.

Nair, A., Ebenezer, P., Saini, Y., Francis, J. (2015). Angiotensin II-induced hypertensive renal inflammation is mediated through HMGB1-TLR4 signaling in rat tubulo-epithelial cells. Experimental Cell Research. 335, 238-247.

Nair, A. R., Masson, G. S., Ebenezer, P. J., Del Piero, F., Francis, J. (2014). Role of TLR4 in Lipopolysaccharide-induced Acute Kidney Injury: Protection by Blueberry. Free Radical Biology & Medicine, 71C, 16-25.

Lee, C.C. (2015), Exploring functions for the non-lemniscal auditory thalamus. Frontiers in Neural Circuits 9:69:1-8.

Lee, C.C., Yanagawa, Y., Imaizumi, K. (2015). Commissural functional topography of the inferior colliculus assessed in vitro. Hearing Research 328:94-101.

Lee, C.C., Yanagawa, Y., Imaizumi, K. (2015). Nicotinic modulation of functional thalamocortical topography. Neuroreport 26:688-694 (Cover Image)

Li, W., Li, S. (2017). Facilitators and repressors of transcription-coupled DNA repair in Saccharomyces cerevisiae. Photochem Photobiol. 93, 259-267. https://www.ncbi.nlm.nih.gov/pubmed/27796045

Li, W., Selvam, K., Rahman, S.A., Li, S. (2016). Sen1, the yeast homolog of human senataxin, plays a more direct role than Rad26 in transcription coupled DNA repair. Nucleic Acids Res. 44, 6794-6802. https://www.ncbi.nlm.nih.gov/pubmed/27179024

Li, S. (2015). Transcription coupled nucleotide excision repair in the yeast Saccharomyces cerevisiae: The ambiguous role of Rad26. DNA Repair. 36, 43-48. https://www.ncbi.nlm.nih.gov/pubmed/26429063

Sakr, H.I., Coleman, D.T., Cardelli, J.A., Mathis, J.M. (2015). Characterization of an oncolytic adenovirus vector constructed to target the cMet receptor. Oncolytic Virotherapy 4, 119-132.

Jackson, K.L., Dayton, R.D., Fisher-Perkins, J.M., Didier, P.J., Kate C Baker, K.C., Weimer, M., Gutierrez, A., Cain, C.D., Mathis, J.M., Gitcho, M.A., Bunnell, B.A., Klein, R.L. (2015). Initial gene vector dosing for studying symptomatology of amyotrophic lateral sclerosis in non-human primates. Journal of Medical Primatology 44 (2), 66-75.

Liu, L., Rogers, B.E., Aladyshkina, N., Cheng, B., Lokitz, S.J., David T Curiel, D.T., Mathis, J.M. (2014). Construction and radiolabeling of adenovirus variants that incorporate human metallothionein into protein IX for analysis of biodistribution. Molecular Imaging 13, 1-12.

Pujalté, I., Serventi, A., Noël, A., Dieme, D., Haddad, S., Bouchard, M. (2017). Characterization of Aerosols of Titanium Dioxide Nanoparticles Following Three Generation Methods Using an Optimized Aerosolization System Designed for Experimental Inhalation Studies. Toxics, 5(3), 14.

Noël, A., Truchon, G., Cloutier, Y., Charbonneau, M., Maghni, K., Tardif, R. (2017). Mass or total surface area with aerosol size distribution as exposure metrics for inflammatory, cytotoxic and oxidative lung responses in rats exposed to titanium dioxide nanoparticles. Toxicology and industrial health, 33(4), 351-364.

Ogundele\*, O.M., Lee, C.C. (2017). CaMKIIα expression in a mouse model of NMDAR hypofunction schizophrenia: Putative roles for IGF-1R and TLR4. Brain Res Bull. 137:53-70. doi: 10.1016/j.brainresbull.2017.11.007 PubMed PMID: 29137928 (\*Co-Corresponding Author).

Ogundele, O.M., Ebenezer, P.J., Lee, C.C., Francis, J. (2017). Stress-altered synaptic plasticity and DAMP signaling in the hippocampus-PFC axis; elucidating the significance of IGF-1/IGF-1R/CaMKIIα expression in neural changes associated with a prolonged exposure therapy. Neuroscience. 353:147-165. doi: 10.1016/j.neuroscience.2017.04.008. PubMed PMID: 28438613; PubMed Central PMCID: PMC5578405.

Ogundele\*, O.M., Rosa, F.A., Dharmakumar, R., Lee, C.C., Francis, J. (2017) Systemic sympathoexcitation was associated with paraventricular hypothalamic phosphorylation of synaptic CaMKIIα and MAPK/ErK. Front Neurosci. 11:447. doi: 10.3389/fnins.2017.00447. PubMed PMID: 28824368; PubMed Central PMCID: PMC5541931. (\*Co-Corresponding Author).

Uhl, E.W., Osborn, M.L. (2016). The pathomechanics of degenerative joint disease: a one health comparative case study approach. AAVMC /APTR One Health Case Studies, http://www.aavmc.org/one-health/case-studies.aspx

Osborn, M.L., Homberger, D.G. (2015). The human shoulder suspension apparatus: a causal explanation for bilateral asymmetry and a fresh look at the evolution of human bipedality. The Anatomical Record, 298 (9): 1572-1588. doi: 10.1002/ar.23178

Patial, S., Curtis, A.D. 2nd., Lai, W.S., Stumpo, D.J., Hill, G.D., Flake, G.P., Mannie, M.D., Blackshear, P.J. (2016). Enhanced stability of tristetraprolin mRNA protects mice against immune-mediated inflammatory pathologies. Proc Natl Acad Sci U S A. 113(7):1865-70.

Patial, S., Blackshear, P.J. (2016). tristetraprolin as a therapeutic target in inflammatory disease. Trends Pharmacol Sci. 37(10):811-21.

Patial, S., Stumpo, D.J., Young, W.S. 3rd., Ward, J.M., Flake, G.P., Blackshear, P.J. (2016). Effects of combined tristetraprolin/tumor necrosis factor receptor deficiency on the splenic transcriptome. Mol Cell Biol. 36(9):1395-411

Noël, A., Xiao, R., Perveen, Z., Zaman, H.M., Rouse, R.L., Paulsen, D.B., Penn, A.L. (2016). Incomplete lung recovery following sub-acute inhalation of combustion-derived ultrafine particles in mice. Particle and Fibre Toxicology, 13: 10.

Xiao, R., Noël, A., Perveen, Z., Penn, A.L. (2016). In utero exposure to second-hand-smoke (SHS) activates pro-asthmatic and oncogenic miRNAs in adult mice. Environmental and Molecular Mutagenesis, 57: 190-199. Editor's Choice-Paper of the Month

Noël, A., Xiao, R., Perveen, Z., Zaman, H., LeDonne, V., Penn, A.L. (2017). Sex-specific lung functional changes in adult mice exposed only to second-hand smoke in utero. Respiratory Research, 18: 104.

Saini\*, Y., Wilkinson, K., Terrell, K., Burns, K.A., Livraghi-Butrico, A., Doerschuck, C.M., O'Neal, W.K., Boucher, R.C. (2016). Neonatal pulmonary macrophage depletion coupled to defective mucus clearance alters pulmonary immune responses. American Journal of Respiratory Cell and Molecular Biology, 54, 210-221. (\*Corresponding Author)

Lewis, B.W., Sultana, R., Sharma, R., Noël, A., Langohr, I., Patial, S., Penn, A.L., Saini, Y. (2017). Early post-natal second-hand smoke (SHS) exposure disrupts bacterial clearance and abolishes immune responses in muco-obstructive lung disease. Journal of Immunology, 199: 1170-1183.

Hwang, H., Lynn, S.G, Vengellur, A, Saini, Y., Grier, E.A., Fergusan-Miller, S.M., LaPres, J.J. (2015). Hypoxia Inducible Factors (HIFs) modulate mitochondrial oxygen consumption and transcriptional regulation of nuclear encoded electron transport chain genes. Biochemistry, 54, 3739-3748.

Strain, G.M. (2017). Hearing disorders in cats. Classification, pathology and diagnosis. Journal of Feline Medicine and Surgery, 19, 276-287.

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# **Biomedical and Veterinary Medical Sciences-Comparative Biomedical Sciences, M.S.**

#### (SVMCB)

The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

The degree involves course work in the student's area of specialty and completion of an original research project resulting in an acceptable thesis. Thirty hours of credit beyond the baccalaureate or professional degree at the graduate level (in courses numbered 4000 or above) must be earned. The curricular requirements include:

- At least six hours in thesis research (VMED 8000).
- At least 24 hours at the 7000 level or above in courses other than thesis research (VMED 8000), including
  - three hours of CBS 7104 Biomedical Cell and Molecular Biology
  - three hours of CBS 7108 Critical Analysis in Molecular Biology/Medicine
  - two hours of VMED 7004 Introduction to Research
  - at least three hours of experimental statistics at the 7000 level

The student must pass a final comprehensive oral exam. At the discretion of the student's advisory committee, a written exam may be required. Few students are admitted to this degree program.

# **Biomedical and Veterinary Medical Sciences-Comparative Biomedical Sciences, Ph.D.**

# **Doctor of Philosophy (PhD) in Biomedical and Veterinary Medical Sciences (PVMCB)**

The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least three additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied. An MS degree is not a requisite for admission to the PhD program.

The degree involves coursework in the student's area of specialty and completion of an original research project resulting in an acceptable dissertation. The dissertation must demonstrate a contribution to the student's major field of study and a mastery of

research techniques. Sixty hours of credit beyond the baccalaureate or professional degree at the graduate level (in courses numbered 4000 or above) must be earned. The curricular requirements include:

At least 24 hours at the 7000 level or above in courses other than dissertation research (VMED 9000), including:

- 1. three hours of CBS 7104 Biomedical Cell and Molecular Biology
- 2. three hours of CBS 7108 Critical Analysis in Molecular Biology/Medicine
- 3. two hours of VMED 7004 Introduction to Research
- 4. at least three hours of experimental statistics at the 7000 level
- 5. at least six hours in professional curriculum courses selected from:
- CBS 7109 Advanced Macroscopic Anatomy
- CBS 7112 Advanced Microscopic Anatomy
- CBS 7603 Clinical Toxicology
- CBS 7631 Biomedical Neuroscience
- CBS 7632 Biomedical Physiology I
- CBS 7633 Biomedical Physiology II
- CBS 7634 Biomedical Physiology III

All candidates for the PhD degree must present a seminar a total of three times, including the final dissertation defense. Students are strongly encouraged to submit the results of their research for publication in peer-reviewed scientific journals.

The student must pass a general exam consisting of written and oral portions and a comprehensive final oral exam.

#### **Veterinary Medical & Biomedical Sciences Graduate Certificate**

#### CBVMS

A *Graduate Certificate in Veterinary Medical & Biomedical Sciences* can be obtained by earning a minimum of a 3.0 grade point average in 16 to 18 credit hours taken from a core curriculum plus electives selected in consultation with the program advisor. There is no research component. The core curriculum focuses on physiological sciences, but alternative focus areas may be considered, depending on the student's goals. The target audience for this program is students seeking to enhance their competitiveness for admission into the professional program in veterinary medicine or other medical professional programs; other targets are students considering graduate degree programs or further training for careers in the biomedical, animal, or public health fields.

Core courses:

- CBS 7203 Cell Biology and Histology (3)
- CBS 7632 Biomedical Physiology I (3)
- CBS 7633 Biomedical Physiology II (3)
- CBS 7634 Biomedical Physiology III (3)

Elective courses (partial listing):

- CBS 7200 Basic and Applied Anatomy 1 (3)
- CBS 7201 Basic and Applied Anatomy 2 (3.5)
- CBS 7202 Basic and Applied Anatomy 3 (4)
- CBS 7204 Histology and Developmental Anatomy (4)
- CBS 7631 Biomedical Neuroscience (3)
- CBS 7104 Biomedical Cell and Molecular Biology (3)

Admission into our certificate program will require completion of a bachelor's degree from an accredited institution, a grade point average of at least 3.00 on a 4-point scale in all undergraduate work and graduate work already completed, and an acceptable GRE score. To apply for the Certificate in Veterinary Medical & Biomedical Sciences program, visit the Graduate School website, go to Prospective Students, select Apply Online, and choose the Certificate in Veterinary Medical & Biomedical Sciences program. Applicants will be evaluated by the Department Graduate Committee.

For further information, please contact the Department of Comparative Biomedical Sciences at 225-578-9889 or cbs@lsu.edu or visit http://www.lsu.edu/vetmed/cbs/index.php.

# **Comparative Literature (Graduate Program)**

# **Program Overview**

Comparative literature at LSU is an interdisciplinary program that encourages students to approach literary studies from multiple perspectives. A core curriculum grounded in the history of literary criticism and theory and training in at least three languages and national literary traditions prepares students in the PhD program to undertake comparative, interdisciplinary research. With the guidance of faculty, students develop their own degree plans and research agendas meant to combine the study of literature, literary theory, language, philosophy, art, history, and other cultural phenomena including science and social science in exciting, fruitful, and innovative ways.

# Administration

Solimar Otero, Director	
TELEPHONE	225-578-4252
FAX	225-578-5074
E-MAIL	solimar@lsu.edu
WEBSITE	www.lsu.edu/complit/

# Admission

Applicants for admission to the PhD program are required to submit GRE scores to the Graduate School before their applications can be considered. Applicants should submit three letters of recommendation and a writing sample.

# **Financial Assistance**

Graduate assistantships and fellowships are available. Contact the program director for information. Most assistantships require teaching one course each semester.

# **Graduate Faculty**

(check current faculty listings by department here)

The graduate faculty for the PhD in Comparative Literature is drawn from departments across the university. Contact the director for specific information.

Stephen Andes (M) • Department of History Frank Anselmo (3A) • Department of French Studies Jacob Berman (M) • Department of English William Q. Boelhower (EM) • Department of English Kevin Bongiorno (3A) • Department of French Studies Brett Boutwell (M) • School of Music Elena Castro (7M) • Department of Foreign Languages and Literatures Paulo Chirumbolo (M) • Department of Foreign Languages and Literatures Kevin L. Cope (M) • Department of English Alejandro Cortazar (3A) • Department of Foreign Languages and Literatures William Lake Douglas (M) • School of Art Femi Euba (M) • Department of English Cecil Eubanks (M) • Department of Political Science Kristopher Fletcher (M) • Department of Foreign Languages and Literatures Carl H. Freedman (M) • Department of English Andreas Giger (M) • School of Music Gundela Hachman (6A) • Department of Foreign Languages and Literatures Dorota Heneghan (M) • Department of Foreign Languages and Literatures Katherine Henninger (M) • Department of English Jan Herlinger (EM) • School of Music J Gerald Kennedy (M) • Department of English Christine J. Kooi (M) • Department of History Joseph Kronick (M) • Department of English Jeffrey Leichman (6A) • Department of French Studies Alexandre Leupin (M) • Department of French Studies Qiancheng Li (M) • Department of Foreign Languages and Literatures John Lowe (EM) • Department of English Wilfred Major (M) • Department of Foreign Languages and Literatures Suzanne L. Marchand (7M) • Department of History Laura Martins (7M) • Department of Foreign Languages and Literatures Patrick McGee (M) • Department of English Andrea E. Morris (M) • Department of Foreign Languages and Literatures Anna Nardo (EM) • Department of English Pius Nkashama Ngandu (M) • Department of French Studies Solimar Otero (7M) • Department of English Christian Fernandez-Palacios (M) • Department of Foreign Languages and Literatures Jeffrey Perry (M) • School of Music Rosemary Peters (M) • Department of French Studies John Pizer (M) • Department of Foreign Languages and Literatures John Protevi (M) • Department of French Studies Francois Raffoul (M) • Department of Philosophy & Religious Studies Pallavi Rastogi (7M) • Department of English Helen Regis (M) • Department of Geography and Anthropology Maria Rethelyi (6A) • Department of Philosophy and Religious Studies Joseph Ricapito (EM) • Department of Foreign Languages and Literatures Adelaide Russo (M) • Department of French Studies Keith Sandiford (7M) • Department of English Alan Sikes (M) • Department of Theatre Mary Sirridge (7M) • Department of Philosophy & Religious Studies Micha Radar (6A) • Department of Geography and Anthropology Darius A. Spieth (M) • School of Art

Gregory Stone (M) • Department of French Studies Carolyn Ware (M) • Department of English Mark Wagner (M) • Department of Foreign Languages and Literatures Sharon A. Weltman (M) • Department of English Jack Yeager (M) • Department of French Studies Michelle Zerba (7M) • Department of English Gang Zhou (M) • Department of Foreign Languages and Literatures

# **Comparative Literature, Ph.D.**

#### (PCOMP)

LSU offers the PhD in comparative literature. The PhD program requires at least 48 hours beyond the bachelor's degree, a general examination, a dissertation, and a final examination in defense of the dissertation.

To minor in Comparative Literature, PhD students in other disciplines must demonstrate competency in three national languages and literature and complete nine hours of 7000 level courses in Comparative Literature (CPLT).

# **Computer Science & Engineering (Graduate Program)**

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

The Division of Computer Science and Engineering in the School of Electrical Engineering and Computer Science offers the research oriented Master of Science in Computer Science and the Doctor of Philosophy in Computer Science. It provides training to prepare talented students for research careers in universities or industrial laboratories, as well as work as computing practitioners in industry. There is a strong and continuing demand for computer scientists to work at the frontiers of knowledge in both theoretical and applied specialties. The curriculum provides for graduate study in several areas of computer science, including algorithms and theory, computer architecture, artificial intelligence, software engineering, knowledge discovery and data mining, digital media, database management, operating systems, networking, wireless sensor networks, cybersecurity high performance computing, distributed computing, robotics, scientific computation, visualization, and programming languages and compilers.

# Administration

Bijaya B Karki, Chair

Gerald Baumgartner, Graduate Advisor

 TELEPHONE
 225-578-1252

 FAX
 225-578-1465

 WEBSITE
 cse.lsu.edu/

# Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Applications for admission are received and evaluated by the division. Applicants must adhere to the application deadlines established by the Graduate School. Note that the Computer Science and Engineering Division's priority deadlines are earlier: for fall admission, the application deadline is **January 15**, and for spring admission, the application deadline is **October 1**.

Students seeking admission must submit satisfactory credentials from previous study, acceptable GRE scores, two letters of recommendation, and a statement of purpose. International students whose native language is not English must also submit an acceptable TOEFL, IELTS, or PTE score.

# **Financial Assistance**

Financial assistance is available to some students. Support may be available through the student's home department or other units in the form of research or teaching assistantships. A student should contact his or her home department for more information on available assistantship positions. To ensure consideration for financial aid, all application materials should be submitted in accordance with deadlines established by the LSU Graduate School. Students who have been admitted to the Computer Science and Engineering Division will automatically be considered for financial assistance by the division. No additional application form is required for consideration for financial aid. The division's financial aid application deadlines are thus the same as the admission deadlines.

# **Graduate Faculty**

(check current faculty listings by department here)

Gerald Baumgartner (M) • Programming languages, compiler optimization, and software engineering tools Steven Brandt (3F)[GB1] • High performance computing, scientific computing, multicore system Konstantin Busch (M) • Distributed algorithms and data structures, communication algorithms, algorithmic game theory Doris L. Carver (M) • Formal requirements and specification techniques, software development environments, reverse engineering, software reusability Feng Chen (6A) Operating systems, storage systems, data management in cloud and large-scale distributed storage systems Jianhua Chen (M) • Artificial intelligence, machine learning, data mining, knowledge representation Hartmut Kaiser (3F) • High performance computing, parallel-X execution model, programming methods Bijaya B. Karki (M) • Scientific computing, visualization, materials simulations Sukhumay Kundu (M) • Software design and modeling, data mining, networking, graph theory Kisung Lee (6A) • Big data data bases and analytics, cloud computing, distributed computing systems Anas Mahmoud (6A) • Software engineering, requirement engineering, code analysis Supratik Mukhopadhyay (M) • Software engineering for distributed systems, logic and automated reasoning, video analytics Seung-Jong Park (M) • Wireless sensor networks, wireless ad hoc networks, high speed network, network convergence, big data Golden Richard III (M) • Reverse engineering, cybersecurity, information assurance, digital forensics Rahul Shah (M) • Algorithms, data structures, database systems Mingxuan Sun (6A) • Machine learning, data analytics, and data visualization Evangelos Triantaphyllou (M) • Data mining and knowledge discovery from databases, multicriteria decision making, discrete optimization, operational research Qingyang Wang (6A) • Distributed systems and cloud computing, large-scale web applications Jinwei Ye (6A) • Computer vision, computational photography, and computer graphics Jian Zhang (M) • Machine learning, data mining, algorithms design and their applications to network security

# **Computer Science**, M.S.

#### (MCSC)

The divisional-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

The degree is a thesis/non-thesis degree requiring a thesis/special project. The MS program offers a core concentration in Computer Science, a concentration in Computational Science, and a **concentration in Systems Science**. In any case, 37 hours of credit at the graduate level must be earned including 12 hours of credit for the thesis (CSC 8000), or 6 hours for non-thesis project (CSC 7090). The curricular requirements include:

- A core requirement of 9 credit hours with 3 hours in each of the three core areas.
- For non-thesis option: at least 21 additional hours, exclusive of any type of independent study (CSC 7999) credit.
- For thesis option: at least 15 additional hours, exclusive of any type of independent study (CSC 7999) credit.
- Earned credit in the graduate seminar course, CSC 7800.

For each concentration and option, at least half of the courses (including both core and electives taken) must be at the 7000 level. The student must submit a written MS thesis/project report and pass the final exam in which the student defends the MS thesis/project in front of the advisory committee.

## **Computer Science, Ph.D.**

#### (PCSC)

The divisional-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements of the LSU Graduate School for graduate committees are satisfied.

The degree requires a dissertation. Fifty-five hours of credit at the graduate level must be earned including a minimum of 18 hours of credit for the thesis research. The curricular requirements include:

- A core requirement of 12 credit hours in algorithms, theory of computation, programming languages, operating systems, computer architecture, and software engineering.
- At least 24 additional credit hours with 15 hours at the 7000 level or above; up to 3 credit hours of independent study (CSC 7999) allowed.
- Earned credit in the graduate research seminar course CSC 7800.
- At least 18 credit hours in thesis research course CSC 9000.

At the discretion of the student's advisory committee, additional courses may be added to the student's curriculum

The student must take the research qualifying exam (involving a written report and oral presentation) monitored by the advising committee. A student has to repeat the exam if he/she cannot pass it in the first attempt. The student must submit a written research proposal and pass the research proposal defense, which is an oral exam. The student must submit a written PhD dissertation, and pass the final exam in which the student defends the dissertation in front of the advisory committee.

# **Construction Management (Graduate Program)**

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

The construction management (CM) graduate programs are designed to blend engineering, business, and construction management concepts together to produce a professional graduate who can manage complex construction processes effectively and efficiently. The CM graduate students will have an in-depth education in state of the art construction specializations including, sustainable construction, hazard management construction, building information modeling, decision-making, and advanced productivity. There are four focused research areas: Advanced Materials & Sustainability, Building Science for Disaster-Resistant Communities, Built Environment Informatics, and Capital Facility Management.

# Administration

Charles Berryman, Chair

Carol Friedland, Graduate Program Coordinator

TELEPHONE	225-578- 5112
FAX	225-578- 5109
WEBSITE	cm.lsu.edu

# Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Applications for admission are received and evaluated by the department. Applicants must adhere to the application deadlines established by the Graduate School.

Applicants for admission to the master's program in construction management or the interdisciplinary doctoral program must meet or exceed requirements stipulated by the Graduate School and have an overall grade point average of 2.75 on a 4.0 scale or a 3.00 on a 4.00 scale for the last 60 hours of undergraduate work. International students must have a satisfactory TOEFL, IELTS, or PTE score. All applicants are to have satisfactory scores on the verbal and quantitative portions of the GRE; however, the GRE can be waived for admission into the master's program if the applicant has a construction management, engineering, or architecture undergraduate degree from a US accredited program (i.e. ACCE, ABET, etc.) AND has more than 3 years of managerial construction experience. A resumé must be submitted that details this experience along with contact information for verification purposes.

Applicants from disciplines other than Construction Management are strongly encouraged to apply; however, they may need to complete Construction Management leveling (foundation) courses before they can be fully admitted into the program.

# **Financial Assistance**

Some departmental assistantships are available for doctoral students and are awarded each semester based on departmental needs and student qualifications. A graduate student may be awarded a departmental assistantship for up to six semesters. Faculty who

have funded research projects provide additional assistantships for participating graduate students. Faculty members also recommend students for fellowships and stipends when these become available.

# Facilities

The Construction Management computer laboratory, used for computer lab instruction and open use by CM students, is equipped with 48 computers. Software includes Microsoft Office Professional, Visio, Microsoft Project, Primavera P6, Timberline, Bid2Win, On-Center Takeoff, AutoCAD, Arena (factory simulation), Lingo (optimization), SAS, Minitab, MATLAB, Maple, Visual Studio.NET (C++, C#, VB, ASP), Java, and many other applications supporting CM coursework. The lab is supported by a bank of twelve servers providing support of coursework in development of information systems, Web application systems, eCommerce systems, and client/server support for project management and estimating courses. The CM Annex Computer Lab (48 computers) is used for computer lab instruction and open use by CM students. Software includes Microsoft Office Professional, Visio, Microsoft Project, Primavera P6, Timberline, Bid2Win, On-Center Takeoff, and AutoCAD. As with the CM Computer Lab, a bank of servers provides client/server for project management and estimating courses.

The LSU Sustainable Materials Testing Laboratory (approximately 2000 ft<sup>2</sup>) is also housed in the Department of Construction Management and managed by Dr. Hassan. This dedicated space is equipped with 4 explosion-proof fume hoods and is equipped with state-of-the-art equipment to for characterizing and testing performance of advanced sustainable materials. The lab includes a number of major research equipment including Thermo Fisher NOx analyzer, Thermo Fisher SO2/H2S analyzer, two photoreactor chambers, a UV light meter, ovens, furnaces, autoclaves, four fume hoods, a Shimadzu UV-VIS spectrophotometer 1800, deionized water system with 60 L tank, freezers (-60oC), oil bath, centrifuges, pH meters, temperature and humidity sensors, various flow meters, oil bath, centrifuges. In addition students have access to the Socolofsky Microscopy Center's that houses both electron and light microscopes including a Nikon Microphot-FXA, V12 fluorescence stereomicroscope, JSM-6610, JSM-6610LV high and low vacuum SEM, JEOL 100CX TEM, as well as a darkroom with automatic X-ray film developer.

The Construction Equipment Simulator Lab has two CAT® simulators, each of which consists of three 43-inch Smart TV monitors, a frame, controls needed to operate the simulator, a computer, mouse, keyboard, software that supports four languages (English, Spanish, French and Chinese), and a motion system that allows users to feel vibration and movement when the simulated machine is running during training exercises. The educational intent is to have students analyze the different facets of productivity, cost estimating, maintenance schedules, and safety protocols through various equipment simulations. The students have the opportunity to learn the complexities of operating large pieces of equipment through operational simulations.

The BIM CAVE facility is a virtual reality visualization platform featuring a 20 foot diameter circular formation composed of 44 55" OLED displays running on a cluster of 11 high performance gaming computers and a master computer. The facility uses the Unreal engine for virtual reality applications and development, and supports drafting, building information modeling (BIM), estimating, scheduling, and general purpose software tools.

The BIM classroom has 40 high performance workstations, each with two 22" monitors. The software and hardware are customized to support BIM, as well as visualization, simulation, and analysis of buildings and construction processes. The classroom is also equipped with a multimedia system for teaching purposes. Students can develop BIMs, simulations, estimates, and schedules in the BIM classroom and conduct review and presentation sessions in the BIM CAVE.

The climate chamber is a  $12'(L) \ge 12'(W) \le 9'(H)$  space where temperature and humidity are controlled for experiments while simultaneously optimizing airflow and noise. The chamber is equipped with a radiant panel to simulate heat sources. It is situated adjacent to an air-conditioned office space where computers are used to monitor and control experiments and activities inside the chamber.

# **Graduate Faculty**

(check current faculty listings by department here)

Charles W. Berryman (M) • Sustainability, material science, soil stabilization, construction education, decision support systems Carol Friedland (M) • Hazard-resistant construction and mitigation, natural hazard vulnerability/risk assessment, community resilience, hazard mitigation planning, industrial construction

Marwa Hassan (M) • Sustainable construction, life cycle assessment, infrastructure sustainability, highway construction, advanced sustainable materials including nano-materials, productivity analysis of construction operations Amirhosein Jafari (6A) • Sustainability in construction, smart buildings and communities, decision support systems in construction, project management systems

Yongcheol Lee (6A) • Building/city information modeling, construction informatics, sensing, disaster recovery, construction safety and health

Charles Francis Pecquet (3P) • Construction safety, workforce training and development, visual communication

Husam Sadek (6A) • Pavement engineering, advanced materials characterization, accelerated pavement testing, infrastructure sustainability

Donald R. Schneider (3P) • Law, project management, contracts, leadership

Jonathan Shi (M) • Construction productivity, construction quality, construction mass customization, lean construction and lean healthcare

Chao Wang (6A) • Automation and robotics in construction, information technology in construction, building information modeling, pavement quality control and assurance

Kimberley Williams (3F) • Online learning, leadership, project management, workforce training and development Yumin Zhu (M) • Computer applications in construction management, sustainable construction

## **Construction Management, M.S.CM**

#### (MCM)

The construction management (CM) MS graduate program is offered 100% online or delivered traditionally on-campus. It is designed to blend engineering, business, and construction management concepts together to produce a professional graduate who can manage construction processes effectively and efficiently. It also provides a path for those interested in research and a career path in academics. The students will have an in-depth education in state of the art construction specializations including, sustainable construction and materials, hazard management construction, building information modeling, decision-making, and advanced productivity. The program is offered in three paths as follows:

**Professional** – (non-thesis masters 36 credit hours of courses). Several projects are integrated throughout the course requirements; however, there is no specific program thesis, project course, or comprehensive examination required. Offered to LSU Online and traditional campus students.

**Executive** – (non-thesis master with project, 33 credit hour courses and 3 credit hour project course for a total of 36 credit hours). Offered to only traditional campus students.

**Research** – (thesis master with 24 credit hour courses and 6 credit hour thesis for a total of 30 credit hours). Offered to only traditional campus students.

#### Professional

This path is offered to both the LSU on-campus MSCM students as well as the MSCM online students. It is a professional practice-orientated advanced degree that offers a unique blend of 36 credit hours of construction management, engineering and business management courses. The degree is designed to develop leaders/managers for building projects with mastery in the best practices contained within sustainability, building information modeling, project delivery, and decision making. Those without a construction related baccalaureate degrees may be required to complete leveling (foundation) CM courses prior to full admission into the program.

The program requires 36 credit hours of graduate studies. Hours are divided into required categories:

CORE CM Courses - 9 credit hours (3 required courses)

- CM 7010 Research Methods in Construction Management (3)
- CM 7030 Project Delivery (3)
- CM 7150 Decision Making Tools in Construction Management (3)

CM ELECTIVES - 27 credit hours (9 courses) selected from the following list:

- CM 7110 Advanced Construction Productivity (3)
- CM 7111 Advanced Construction Scheduling (3)
- CM 7211 Construction Dispute Resolution (3)
- CM 7213 Soils in Construction (3)
- CM 7214 Concrete Materials in Construction (3)
- CM 7220 Building Information Modeling for Construction Management (3)
- CM 7230 Lean Construction (3)
- CM 7250 Natural Hazard Resistant Construction (3)
- CM 7302 Advanced Sustainable Construction (3)
- CM 7303 Environmental Life Cycle Assessment (3)

Additional courses will be developed in the future and offered as additional electives.

#### Executive

This path is offered only to on-campus MSCM students. This path is designed to serve the construction professionals that are interested in learning more about construction research. This path consists of 36 credit hours, with 33 credit hour courses and a 3 credit hour research project. It blends engineering, business, and construction management concepts together to produce a professional graduate who understands basic research methods and can manage higher level construction processes effectively and efficiently. Final program of study is developed by the student's supervisory committee. Those without a construction related baccalaureate degrees may be required to complete leveling (foundation) CM courses prior to full admission into the program. Focus research areas within the construction management include:

- Advanced Materials & Sustainability
- Building Science For Disaster-Resistant Communities
- Built Environment Informatics
- Capital Facility Management

CORE CM Courses - at least 9 credit hours (3 required courses)

- 1. CM 7010 Research Methods in Construction Management (3)
- 2. EXST 7004, EXST 7005, EXST 7006, CM 7150 or equivalent
- 3. Construction Management courses 3 credit hours (one course) selected from the following list:
  - CM 7030 Project Delivery
  - CM 7110 Advanced Productivity
  - CM 7111 Construction Scheduling and Diagnostics
  - CM 7150 Decision Making tools for CM

- CM 7203 Advanced Sustainable Construction
- CM 7214 Concrete Materials in Construction
- CM 7303 Environmental Life cycle assessment
- CM 7211 Construction Dispute resolution
- CM 7213 Soils in Construction
- CM 7220 BIM
- CM 7230 Lean construction
- CM 7250 Natural Hazard Resistant Construction

PROJECT COURSE – 3 credit hours (1 required course)

#### • CM 7207

4. ELECTIVES – 26 credit hours can be selected from the courses offered within the College of Engineering including the Construction Management Department to accommodate one of the four research areas.

#### Research

This path is offered only to on-campus MSCM students. This path is designed to serve a construction professional that would like to pursue research in construction and graduate with a thesis. This path consists of 30 credit hours with 24 credit hour courses and 6 credit hour thesis. The program of study focuses on higher levels of research but also blends engineering, business, and construction management concepts together to produce a research graduate planning a career in academia. Final program of study is developed by the student's supervisory committee. Those without a construction related baccalaureate degree may be required to complete leveling (foundation) CM courses prior to **full admission to the program**. Focus research areas within the construction management department include:

- Advanced Materials & Sustainability
- Building Science For Disaster-Resistant Communities
- Built Environment Informatics
- Capital Facility Management

CORE CM Courses - at least 9 credit hours (3 required courses)

1. CM 7010 Research Methods or equivalent

#### 2. EXST 7004, EXST 7005, EXST 7006, CM 7150 or equivalent

3. Construction Management courses - 3 credit hours (one course) selected from the following list:

- CM 7110 Advanced Productivity
- CM 7030 Project Delivery
- CM 7111 Construction Scheduling and Diagnostics
- CM 7150 Decision Making tools for CM
- CM 7203 Advanced Sustainable Construction
- CM 7211 Construction Dispute resolution
- CM 7213 Soils in Construction
- CM 7220 BIM
- CM 7230 Lean construction
- CM 7250 Natural Hazard Resistant Construction
- CM 7214 Concrete Materials in Construction

• CM 7303 Environmental Life cycle assessment

4. ELECTIVES – 14 additional credit hours can be selected from the courses offered within the College of Engineering including the Construction Management Department to accommodate one of the four research areas.

### **Engineering Sciences, M.S.E.S.**

#### (MES)

The MS in Engineering Science program - offered with both thesis and non-thesis options - provides an opportunity for study in areas not represented by departments within the college. Students can enter the program with a baccalaureate degree in any field of engineering or in a pure or applied science. The departmental-level academic course plan for each student (due at the end of the first semester) will be developed in consultation with and approved by the student's graduate advisory committee. Graduate School regulations require the major professor (committee chair) to be a graduate faculty member from a department within the College of Engineering. The committee must also include at least two additional members of the graduate faculty.

The minimum requirements for the thesis option are 24 semester credit hours coursework, six additional hours of thesis research credit, and successful defense of a research thesis. The non-thesis option requires a minimum of 36 semester hours of coursework including a three-credit hour project course. The project course incorporates a written report and oral presentation to the graduate advisory committee. Additional coursework may be necessary for students lacking the proper course prerequisites or as required by the graduate advisory committee and specified on an approved plan of study.

At least one-half of the coursework must be College of Engineering courses and at least one-half of the total coursework must be at the 7000 level, excluding thesis hours. The program requires emphasis in at least two areas of study not available within a single department and at least 18 hours of required coursework and one academic year in residence must be completed after admission to the program.

A plan of study, approved by the student's advisory committee, must be submitted to the Associate Dean for Academic Affairs in the College of Engineering by the end of the first semester of enrollment at LSU.

Students applying to transfer into Engineering Science or to enroll as dual degree after one semester at LSU MUST complete the Engineering Science plan of study as part of the application process.

#### **Engineering Sciences, Ph.D.**

#### (PES)

The college accepts qualified students with bachelor's or master's degrees in engineering or a pure or applied science to work toward a PhD in this interdisciplinary program. The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee must consist of at least three members of the graduate faculty. The major professor (advisory committee chair) must be from a department within the College of Engineering and at least one member of the student's committee must come from a department offering the PhD degree in the College of Engineering. The advisory committee must also include representatives from the sub-areas of specialization.

A PhD departmental-level academic course plan, approved by the student's advisory committee, should be submitted to the Associate Dean for Academic Affairs in the College of Engineering by the start of the second semester of enrollment. Students applying to transfer into Engineering Science or to enroll as dual degree after one semester at LSU, MUST complete the

Engineering Science PhD plan of study as part of the application process. This early plan of study will map directly to the Doctoral Degree Audit form required by the LSU Graduate School as candidates near completion of their coursework.

The student will be required to complete a minimum of 54 semester hours of approved coursework beyond the bachelor's degree and prepare a dissertation acceptable to his or her advisory committee and the Graduate School. At least half of the coursework (27 semester hours) must be taken in courses offered by departments within the College of Engineering. Requirements include 24 hours of coursework concentrated in at least two sub-areas of specialization within one or more academic departments. The remaining 30 semester hours of coursework must contain no more than 15 hours in any one department.

The interdisciplinary degrees of the Ph.D. in Engineering Science are offered in Materials Science and Engineering, Environmental and Technological Hazards Engineering, Information Technology Engineering, Biological Engineering, and Construction Management. The Ph.D. requires at least two sub-areas of specialization within one or more academic departments, in addition to the major concentration area of study.

# **Digital Media Art & Engineering (Graduate Program)**

# **Program Overview**

Conceptualize, collaborate, create, develop and surpass your wildest imagination. Learn how to create video games, animation and visual effects in a new, \$29.3 million, state-of-the-art facility. Work with a diverse group of digital artists, technicians and researchers to solve complex team-based problems using professional tools and pipelines. The goal of the DMAE program is to be one of the top graduate-level interactive, media and entertainment technology programs in the world.

In this program you will work with complex software tools used in industry, high-end digital workstations, one of the fastest super computers and the latest in specialized hardware. Coursework will include project classes where you will work in multidisciplinary teams on large productions.

# Administration

Marc	Aubanel	Director	Media	Arts &	Engineering
wiate i	Aubanci,	Diffector	witcula	Aits &	Engineering

TELEPHONE	225-578-8907
FAX	225-578-6248
EMAIL	maubanel@cct.lsu.edu
WEBSITE	https://dmae.lsu.edu/academics

Lea Anne Landry, Manager, Digital Media Arts & Engineering

TELEPHONE 225-578-5433

FAX 225-578-8189

EMAIL leaanne@cct.lsu.edu

# Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Admission to the Digital Media Arts & Engineering Program:

Applicants are required to take the GRE exam to be accepted into the program. Admission is selective and your application is evaluated on the basis of your portfolio. Digital Media has been in the domain of engineering and the digital arts but has expanded into many other disciplines. With a rapid acceleration in gamification, low cost portable devices and app development the possible fields affected by digital media is growing. It has relevance in mass communication, business development, communication studies and architecture to name a few. Because of the interdisciplinary nature of the program, we accept students with a bachelor degree from any program of study.

## **Financial Assistance**

Support may be available through the student's home department or other units in the form of research or teaching assistantships. To ensure consideration for financial aid, all application materials should be submitted in accordance with deadlines established by the LSU Graduate School.

# Facilities

The DMAE program is housed in the new Louisiana Digital Media Center. It is a brand new 50,000 square foot facility that is colocated with Electronic Arts North American Testing Center. The facility includes a lab, offices for faculty, and workspaces for students. The facility includes a state-of-the art theater with multi-channel audio and 4K (UltraHD) projection. There is 3,084 sq. ft. of classroom space as well as audio studios, a fabrication lab, and an electronics lab. The program has state-of-the art computers with the latest version of software used by visual effects, game, and animation studio. This includes Oculus Rift, Adobe Creative Cloud, Autodesk Maya, Unity, NukeX, Mari, Harmony, ZBrush, and Houdini to name a few. CCT's cyberinfrastructure includes access to a high-performance computing render farm. Students have access to facilities in engineering and art including a motion capture and lighting studio, a Red digital camera, digital fabrication workshops and a media research studio. The program keeps up to date with rapidly changing hardware and software needs in the media arts field.

# **Graduate Faculty**

Marc Aubanel (3P) • Video game and digital media development with 15 years industry experience including FIFA, Need for Speed Underground and Def Jam Vendetta.

Ken Wesley (3P) • Visual effects and film post production with 20 years industry experience including Star Wars, Star Trek, and Harry Potter

## Digital Media Arts & Engineering, M.DMAE

(SDMAE)

The Master of Digital Media in Arts & Engineering from the College of Engineering and the College of Art and Design is a 45 credit hour professional graduate degree program designed for leadership, creativity, technical prowess and design excellence in the field of digital media. The program features a one-semester internship where students can gain professional experience.

Required courses include 15 hours of team based studio courses, 18 hours of foundational courses, 9 hours of elective courses, and a 3 hour summer internship.

## **Economics (Graduate Program)**

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

The Department of Economics has 14 full-time faculty members actively engaged in research, seven of whom have been awarded named professorships in recognition of their excellence in research and teaching. In addition, the *Journal of Labor Research* is edited within the department. The Department of Economics also houses the Economics and Policy Research Group, which among other functions publishes the annual *Louisiana Economic Outlook*.

The graduate program in economics provides students with a strong foundation in microeconomic and macroeconomic theory and econometrics. To complement the general theory sequence, the department offers areas for specialization that include econometrics, advanced macroeconomics, and applied microeconomics. The advanced macroeconomics field consists of courses selected from economic growth, advanced macroeconomic topics, international macroeconomics, and monetary economics. The applied microeconomics field consists of courses selected from topics in applied microeconomics, health economics, labor economics, and public economics.

# Administration

Faik Koray, Chair	
Bulent Unel, Director of Graduate Studies	
TELEPHONE	225-578-5211
FAX	225-578-3807
E-MAIL	gradecon@lsu.edu
WEBSITE	lsu.edu/business/economics

# Admission

Applicants for graduate studies in Economics must meet the requirements for admission to the Graduate School and be accepted by the Department of Economics. A detailed description of the Ph.D. program can be found on the Economics Department webpage. Note that the LSU Graduate School Requirements, in addition to the ones specific to the Department of Economics described in the next paragraph, are only for consideration and do not guarantee admission. In addition to the Graduate School requirements, students should have completed undergraduate courses in calculus, statistics, and intermediate microeconomics and macroeconomics before entering either the MS or PhD programs. It would be preferable for students interested in pursuing the PhD degree to take at least a year of calculus, a linear algebra course, probability, and statistics.

Non-economic majors with strong academic records and the requisite math and statistics background are encouraged to apply. However, individuals with these qualifications will be required to work through intermediate macroeconomics and microeconomics textbooks on their own by the end of the summer preceding entry into the PhD program. A list of suitable textbooks will be supplied by the department.

The department also requires three letters of recommendation. We do not require writing samples.

# **Financial Assistance**

All PhD students, both domestic and international, including entering graduate students, are eligible to apply for assistantships. A full-time graduate student assistant currently receives a stipend, and is also provided a full tuition waiver. Students holding assistantships are expected to assist the faculty in their research and teaching for a maximum of 20 hours per week. Teaching assistantships, which involve teaching an entire section, are available to those advanced graduate students who have successfully passed the PhD qualifying exams.

Graduate School Supplemental Awards are sometimes available to outstanding graduate students entering the PhD program. These awards range from \$1,000 to \$3,000 per year and are generally renewable for a maximum of four years. A minimum GPA of 3.0 *every semester* is required to retain the award. Summer stipends for teaching or research have been available in the past and will be available in the future, but their number varies from summer to summer.

# **Graduate Faculty**

(check current faculty listings by department here)

Louis-Philippe Beland (6A) • Labor Economics, Public Policy, Political Economy, Economics of Education Areendam Chanda (M) • Macroeconomics, Economic Growth; Co-Editor, Economic Inquiry Daniel Keniston (6A) • Development Economics, Industrial Organization, Urban Economics Faik A. Koray (M) • Macroeconomics, International Economics Naci Mocan (M) • Labor Economics, Health Economics; Research Associate, NBER Robert J. Newman (M) • Labor economics; Editor, Journal of Labor Research Abigail Peralta (6A) • Public Economics, Political Economy, Development Economics James A. Richardson (M) • Public Finance, Economics of Taxation M. Dek Terrell (M) • Econometrics, Bayesian Econometrics, Applied Time Series Bulent Unel (M) • International Trade and Productivity, Entrepreneurship, Labor Economics Xintong Wang (6A) • Applied Microeconomics, Health Economics, Public Economics Fang Yang (M) • Macroeconomics, Consumption & Savings, Human Capital Qiankun Zhou (6A) • Applied Econometrics, Econometric Theory

# **Selected Faculty Publications**

Louis-Philippe Beland, "Traffic and Crime," Journal of Public Economics, 2018, with D.A. Brent.

Areendam Chanda, "Persistence of Fortune: Accounting for Population Movements, There was No Post-Columbian Reversal," American Economic Journal: Macroeconomics, 2014, with J. Cook and L. Putterman.

Daniel Keniston, "Dutch Disease or Agglomeration? The Local Economic Effects of Natural Resource Booms in Modern America," 2017, with H. Allcott.

Faik A. Koray, "Nonlinear Growth Effects of Taxation: A Semi-Parametric Approach Using Average Marginal Tax Rates," Journal of Applied Econometrics, 2013, with K. P. Arin, M. Berlemann, and T. Kuhlenkasper.

W. Douglas McMillin, Bernanke vs. Taylor: A Post Mortem," Applied Economics, 2015

Naci Mocan, "Emotional Judges and Unlucky Juveniles," American Economic Journal: Applied Economics, 2018, with O. Eren.

Robert J. Newman, "The Bargaining Power of Health Care Unions and Union Wage Premiums for Registered Nurses," Journal of Labor Research, 2015, with C. Coombs, R. Cebula, M. White.

Bulent Unel, "Offshoring and Unemployment in a Credit-Constraint Economy," Journal of International Economics, 2018.

Barton Willage, "The Effect of Weight on Mental Health: New Evidence Using Genetic IVs," Journal of Health Economics, 2018.

Fang Yang, "Housing over Time and Over the Life Cycle: A Structural Estimation," International Economic Review, 2017, with W. Li, H. Liu, and R. Yao.

Qiankun Zhou, "Incidental parameters, initial conditions and sample size in statistical inference for dynamic panel data models," Journal of Econometrics, 2018, with C. Hsiao.

## **Econometrics Graduate Certificate**

#### (CECM)

A Graduate Certificate in Econometrics can be obtained by earning a minimum of a 3.0 average in the four econometrics courses listed below. No substitution of courses or transfer credit is permitted. The certificate program has prerequisites of multivariate calculus and linear algebra and is open to graduate students at LSU and to non-traditional students from business, industry, and government.

ECON 7630 Econometric Methods (3)

ECON 7631 Econometric Methods II (3)

ECON 7632 Microeconometrics (3)

ECON 7633 Dynamic Econometric Theory (3)

To apply for the Certificate in Econometrics program, visit the Graduate School website, go to Prospective Students, select Apply Online, and choose the Certificate in Econometrics program. Applicants will be evaluated by the Department Graduate Committee.

For further information, please contact the Department of Economics, 225-578-5211 or econ@lsu.edu.

#### Economics, M.S.

#### (SECON)

The MS program is designed to provide our graduate students with analytic skills and a breadth of economic understanding that prepares them for careers in government, business, or for further study in economics. Since employers in business and

government are seeking professionals with strong skills in data analysis and understanding of economic policies, our program is designed to meet these demands.

Students must complete 30 hours of coursework, of which up to 6 hours of 7000-level courses outside of Economics can be taken with permission of the Graduate Director. Students must take a minimum of 24 hours of 7000-level courses and only 6 hours of 4000-level courses can be taken. A detailed description of the MS program can be found on the Economics Department webpage.

# Economics, Ph.D.

# (PECON)

Our goal is to provide our graduate students with analytic skills and a breadth of economic understanding that prepares them for careers in academics, government, or business. To this end, we encourage our students to begin their research as soon as possible. Once our students finish their course work, they immediately begin their research with their advisors. Many of them publish papers before they complete their PhD, which helps them perform better in the job market.

Students must complete 36 hours of coursework in Economics, all of which must be at the 7000-level. Any coursework for an outside minor is in addition to the 36 hours of Economics coursework. Students must take at least 18 hours of predissertation/dissertation research (9 hours per semester) after completion of the required courses and will continue to do so as long as they are working on the dissertation. A detailed description of the Ph.D. program can be found on the Economics Department webpage.

# **Education (Graduate Program)**

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

The School of Education offers a range of professional and academic graduate degree programs that focus on preparing students for careers in education, research, policy formation and implementation, as well as program oversight. Job opportunities are found in schools, school districts, universities, public and private agencies, business and industry, and many other areas.

# Administration

F. Neil Mathews, Director	
Kristin A. Gansle, Graduate Advisor	
TELEPHONE	225-578-6867
FAX	225-578-9135
E-MAIL	kgansle@lsu.edu
WEBSITE	www.lsu.edu/education

# Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and schools have access to all materials submitted by and/or on behalf of a student applying to graduate study.

To be admitted to the Certificate, MA, MAT, MEd, EdS, or PhD programs, a student must complete normal Graduate School application procedures by deadlines established by the Graduate School. Applicants will be expected to provide appropriate documentation upon request for admission into the various degree programs. Documents include a statement of purpose, a resume or CV, all undergraduate and graduate transcripts, GRE, three letters of recommendation, and TOEFL, IELTS, or PTE scores for international students whose native language is not English. Applicants are accepted all year with the exception of Higher Education which has a deadline of December 1 for the following fall for on campus programs, and Counseling which has a deadline of March 15. In order to be considered for fall admission, applications with supporting information must be complete by March 15. For spring or summer admission, they must be complete by October 30. Not all programs accept applicants for spring; please check with specific program advisors. Complete applications not available for review by these dates will be considered for the following semester as long as that program is admitting for the following semester. Minimum requirements for admission into all degree programs are a score of 153 on the verbal and 144 on the quantitative sections of the GRE, and an undergraduate cumulative GPA of 3.0 for the last 60 hours of coursework. Lower GRE scores may be considered contingent on an excellent GPA.

After completed application materials are received from the Graduate School, faculty panels in each degree program review and make admission recommendations to the School Director. Upon approval of the School, students are notified of acceptance by the Graduate School. Many programs may be completed part-time. Please refer to program faculty for specific program requirements.

# **Financial Assistance**

Assistantships are awarded on a competitive basis. Doctoral student stipends for academic-year appointments start at \$10,800. Deadline for submission of applications for financial aid is **February 1**.

## **Graduate Minor in Writing Pedagogy**

The graduate minor in Writing Pedagogy is designed to deepen understanding of the teaching of writing pedagogy as well as extend personal practice as writers. Students interested in the graduate minor should meet with their advisor/major professor to design a Program of Study and fill out (as appropriate) a Med, Educational Specialist or PhD Program of Study Form, to be kept on file with the advisor.

Courses must be clearly delineated as to which hours count as major coursework and which as minor coursework. Graduate students minoring in writing pedagogy must complete 12 hours of coursework including

- EDCI 7129 Writing Seminar: From Idea to Manuscript (3)
- EDCI 7311 Topics in Language Arts Education (3)

In addition, students must take one of the following:

Elementary education majors

- EDCI 7314 Teaching Written Composition from PK through Grade 6 (3) Secondary education majors
  - EDCI 7142 Studies in the Teaching of Composition in Secondary Schools (3)

If appropriate and with approval of a student's advisor/major professor, the final 3 hours may be taken specific to writing within the English Department. Of these courses, no more than three may be taken with the same professor.

For further information, please contact the School of Education at 225-578-6867 or gradsoe@lsu.edu.

# **Graduate Faculty**

(Check current faculty listings by department here)

This school was cited by the Louisiana Board of Regents' PhD Review Summary as a school that had "attracted a high quality faculty at both the senior and junior level, had a good sense of purpose for their programs, and a good sense of themselves as an academic community."

F. King Alexander (M) • Higher education Keena Arbuthnot (M) • Educational research Jacqueline Bach (M) • English education, curriculum theory Estanislado Barrera (6A) • Reading and literacy education Jennifer Baumgartner (M) • Early childhood education, child development Joy Blanchard (M) • Higher education Pamela Blanchard (M) • Science education Renée M. Casbergue (M) • Reading and literacy education Erin Casey (6A) • Elementary education, social studies education, early childhood education Earl H. Cheek Jr. (EM) • Reading education Yu "April" Chen (6A) • Higher education Laura Hensley Choate (M) • College counseling, counselor education, counseling women Ashley B. Clayton (6A) • Higher education Rita Culross (EM) • Gifted and talented education Jennifer Curry (M) • School counseling R. Kenton Denny (M) • Special education Cynthia DiCarlo (7M) • Early childhood education Stephanie Eberts (3F) • Counselor education Denise Egea (EM) • Foreign language education, curriculum studies Kenneth J. Fasching-Varner (M) • Elementary education, curriculum studies, pedagogy, diversity Kristin A. Gansle (M) • Special education Gary G. Gintner (M) • Diagnosis and treatment planning, substance abuse, stress reduction Petra Munro Hendry (M) • Social studies, curriculum studies Eugene Kennedy (M) • Educational research Min-Joung Kim (6A) • Mathematics education David Kirshner (M) • Mathematics education Robert C. Lafayette (EM) • Foreign language education Carlos G. Lee (3P) • Educational administration, management theory, policy evaluation S. Kim MacGregor (M) • Educational research, instructional innovation F. Neil Mathews (M) • Gifted education Roland Mitchell (M) • Higher education, pedagogy, diversity Paul Mooney (M) • Special education Tom Ricks (M) • Mathematics education Kimberley Skinner (6A) • Literacy education, curriculum studies Margaret-Mary Sulentic Dowell (M) • Literacy, urban education Charles Teddlie (EM) • Qualitative research Kerri Tobin (6A) • Social studies education

## Counseling, M.Ed.

(ECOUN)

### Master of Education (MEd)

The **Master of Education** (**MEd**) is designed to advance the knowledge base of certified teachers, provide preparation for individuals interested in leadership positions in schools and school districts, and prepare school counselors.

Program areas include: educational leadership; gifted education, special education, counseling with concentrations in clinical mental health counseling and school counseling; and curriculum and instruction with specializations in early childhood education, elementary education, English education, foreign language education, language arts/children's literature, mathematics education, reading/literacy, science education, social studies education, and special education.

The school-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

#### Counseling

The M.Ed. in Counseling is a 60-hour master's program offering concentrations in either School Counseling or Clinical Mental Health Counseling.

The **Clinical Mental Health Counseling** concentration provides professional level training to graduate students interested in working in community and mental health settings and is designed to prepare students to become licensed professional counselors in the state of Louisiana.

The Clinical Mental Health Counseling non-thesis concentration requires the completion of 60 credit hours, which includes a specified core of 48 credit hours and 12 elective credit hours. The thesis option requires 60 hours of which 51 hours are in the specified core, and nine are in thesis.

The curriculum requirements include:

- At least 42 hours at the 7000-level or above.
- A primary area consisting of a minimum of 48 hours of earned credit in a specified field of study
- An elective component consisting of 12 hours

The **School Counseling** concentration's mission is to recruit and train self-motivated counselors who are educational leaders and serve as advocates for all students in elementary, middle, and secondary schools.

The School Counseling non-thesis concentration requires the completion of 60 credit hours of which 51 credit hours are in a specified core and nine hours are elective courses. The thesis option requires 51 hours in the specified core, and nine hours for the thesis.

The curriculum requirements include:

- At least 42 hours at the 7000-level or above
- A primary area consisting of a minimum of 51 hours of earned credit in a specified field of study
- An elective component consisting of 9 hours

For both concentrations, the student must pass a comprehensive final examination which is taken during the last semester of the program.

## Curriculum & Instruction, M.Ed.

(ECIN)

### Master of Education (MEd)

The **Master of Education** (**MEd**) is designed to advance the knowledge base of certified teachers, provide preparation for individuals interested in leadership positions in schools and school districts, and prepare school counselors.

Program areas include: educational leadership; gifted education, special education, counseling with concentrations in clinical mental health counseling and school counseling; and curriculum and instruction with specializations in early childhood education, elementary education, English education, foreign language education, language arts/children's literature, mathematics education, reading/literacy, science education, social studies education, and special education.

The school-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

#### Curriculum and Instruction

Curriculum and instruction requires 36 hours of credit at the graduate level. Students may opt to do a thesis project, a non-thesis project, or neither.

The curricular requirements include:

- At least 18 hours at the 7000 level or above (excluding thesis research hours).
- At least 21 credit hours within the School of Education.
- A core area of 12 hours including at least 3 hours each in curriculum studies, research, technology, and humanistic and behavioral studies.
- 12 hours in an area of specialization. Specializations may include early childhood education, elementary education, English education, foreign language education, language arts/children's literature, math education, reading/literacy, science education, social studies education, and special education.
- Six to twelve hours of electives selected in consultation with the major advisor.

The student must pass a comprehensive final exam consisting of a series of written questions pertaining to the student's specialization.

## Curriculum & Instruction, Ph.D.

# Educational Leadership and Research (PEDLR) or Curriculum and Instruction (PEDCI)

Educational Leadership & Research, Ph.D. or Curriculum & Instruction, Ph.D.

The **Doctor of Philosophy (PhD)** programs in the School of Education are offered through two degrees. The first degree is in educational leadership and research. Specializations include: educational leadership, higher education administration, educational research methodology, and educational technology. [Please note: Admissions to the PhD with a specialization in educational technology are currently suspended.] The second degree is in curriculum and instruction. Specializations include: language arts/children's literature, curriculum studies, early childhood education, English education, foreign language education, gifted education, mathematics education, reading /literacy, science education, social studies education, and special education.

The school-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

The degree requires the successful completion of a dissertation as its final requirement. Ninety hours of credit at the graduate level must be earned including 9-18 hours of credit for the dissertation.

The curricular requirements for Educational Leadership include:

- A core area of 20 hours which includes 14 hours of research, and six hours in a school core.
- 24 hours in the primary area of P-12 Leadership specialization.
- Nine hours of dissertation research.
- Admitted students are anticipated to have a master's degree; students who do not have a master's degree must complete a minimum of 37 hours in addition to the 53 hours required for the PhD.

The student must pass a General Exam consisting of written questions and a comprehensive oral exam; write a dissertation proposal and pass an oral defense of the proposal; and write a dissertation and pass an oral defense of the dissertation.

The curricular requirements for Higher Education Administration include:

- A core area of 19 hours which includes 11 of research, and six hours in a school core.
- 24 hours in the primary area of higher education, of which at least 15 hours must be completed during the doctoral program. If a student does not have a previously earned graduate degree in higher education, all 24 hours must be in the primary area of higher education.
- Nine hours of dissertation research.
- Admitted students are anticipated to have a master's degree; students who do not have a master's degree must complete a minimum of 38 hours in addition to the 52 hours required for the PhD.

The student must pass a General Exam consisting of written questions and a comprehensive oral exam; write a dissertation proposal and pass an oral defense of the proposal; and write a dissertation and pass an oral defense of the dissertation.

The curricular requirements for Educational Research Methodology include:

- A school core area of six hours.
- 14 hours in educational leadership and research program courses.
- 12 hours in the primary area of educational research methodology.
- 12 hours in an allied field.
- Three hours of advanced research practicum.
- Nine hours of dissertation research.
- Admitted students are anticipated to have a master's degree; students who do not have a master's degree must complete a minimum of 34 hours in addition to the 56 hours required for the PhD.

The student must pass a General Exam consisting of written questions and a comprehensive oral exam; write a dissertation proposal and pass an oral defense of the proposal; and write a dissertation and pass an oral defense of the dissertation.

The curricular requirements for Educational Technology include:

- A core of 19 hours, which includes six hours in a school core.
- 18 hours in the primary area of educational technology.
- Three hours in technology applications and issues.
- Three hours in learning theory.
- Three hours in curriculum related issues.
- Nine hours of dissertation research.
- Admitted students are anticipated to have a master's degree; students who do not have a master's degree must complete a minimum of 35 hours in addition to the 56 required for the PhD.

The student must pass a General exam consisting of written questions and a comprehensive oral exam; write a dissertation proposal and pass an oral defense of the proposal; and write a dissertation and pass an oral defense of the dissertation.

The curricular requirements for the PhD in Curriculum and Instruction include:

- 50 hours in the area of specialization (e.g., language arts/children's literature, curriculum studies, early childhood education, English education, foreign language education, gifted education, mathematics education, reading/literacy, science education, social studies education, and special education), which includes six hours in a school core.
- A minimum of nine hours in research methods.
- 12-18 hours of dissertation research.
- Admitted students are anticipated to have a master's degree; students who do not have a master's degree must complete a 90-hour curriculum required for the PhD.

The student must pass a General exam consisting of written questions and a comprehensive oral exam; write a dissertation proposal and pass an oral defense of the proposal; and write a dissertation, and pass an oral defense of the dissertation.

## **Curriculum and Instruction Certification, Ed.S.**

# Curriculum and Instruction Certification, Ed.S. (CEDCI) or Education Leadership Certification, Ed.S. (CELRC)

Curriculum and Instruction Certification, Ed.S. or Education Leadership Certification, Ed.S.

The **Certificate of Education Specialist (EdS)** program is intended primarily for teachers, counselors, supervisors, and administrators in elementary and secondary schools. This program provides in-depth opportunities for further professional growth and specialization for persons who have completed the master's degree. A minimum of 60 hours of graduate credit—which may include the master's degree—is required. Specializations include language arts/children's literature, counseling, curriculum studies, early childhood education, educational leadership, educational technology, English education, foreign language education, gifted education, mathematics education, reading/ literacy, science education, social studies education, and special education.

The school-level academic course plan will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

The degree is a non-thesis degree requiring a minimum of 60 hours of credit at the graduate level.

Educational Leadership requires 63 hours of credit at the graduate level, and does not offer a thesis option. The curricular requirements include:

- Six hours in Humanistic and Behavioral Studies.
- Six hours in research.
- 42 hours in the area of specialization.
- Nine hours in an allied field.

The student must complete all required course work with a 3.0 GPA or higher. No final exam is required for this specialization.

Educational Technology requires 60 hours of credit at the graduate level, and does not offer a thesis option. The curricular requirements include:

- Six hours in Humanistic and Behavioral Studies.
- Six hours in research.
- 24 hours in the area of specialization.

- Three hours in technology applications and issues.
- Three hours in learning theory.
- Three hours in curriculum related issues.
- 15 hours of electives.

The student must complete all required course work with a 3.0 GPA or higher. No final exam is required for this specialization. [Please note: Admissions to the Ed.S. in Educational Technology are currently suspended.]

Counseling requires 60 hours of credit at the graduate level, and does not offer a thesis option. The curricular requirements include:

- 60 hours in the specialization.
- A 300 hour internship.

The student must pass a comprehensive final exam consisting of a series of written questions pertaining to the student's specialization.

The specializations in language arts/children's literature, curriculum studies, early childhood education, English education, foreign language education, gifted education, mathematics education, reading/literacy, science education, social studies education, and special education require 60 hours of credit at the graduate level, and do not offer a thesis option. The curricular requirements include:

- Six hours of Humanistic and Behavioral Studies.
- Six hours in research.
- 30 hours in the area of specialization.
- 18 hours of electives.

The student must complete all required course work with a 3.0 GPA or higher, and must successfully complete a required sixhour practicum in the area of specialization. No final exam is required for these specializations.

## Early Childhood Education Graduate Certificate

#### (CECE)

The purpose of the *Graduate Certificate in Early Childhood Education* is to give practitioners (i.e., teachers, others who work with infants and toddlers) coursework that will increase their knowledge in child development and early childhood education so that they are better prepared to implement best practices in early childhood education in their work with young children. This hybrid program will allow students to engage in face-to-face coursework or complete their coursework online. Students will gain practical experience by integrating course content with field-based experiences.

Students will be required to take 12 credit hours of coursework, including two (6 credits) required courses. The electives may be selected from any early childhood courses offered in the School of Education. Coursework taken in the Graduate Certificate in Early Childhood Education program can be applied toward a graduate degree in curriculum and instruction, with a concentration in early childhood education.

The Graduate Certificate in Early Childhood Education is ideal for those who are 1) non-certified individuals to gain foundational information needed to enter a master's degree program; 2) certified teachers wanting to add early childhood coursework intending to take the early childhood Praxis and add an early childhood endorsement to their certificate; and 3) childcare staff needing early childhood coursework, in order to meet criteria set forth by the Quality Start Child Care Rating System (QRS) Model.

# **Education Leadership Certification, Ed.S.**

Curriculum and Instruction Certification, Ed.S. (CEDCI) or Education Leadership Certification, Ed.S. (CELRC)

#### Curriculum and Instruction Certification, Ed.S. or Education Leadership Certification, Ed.S.

The **Certificate of Education Specialist (EdS)** program is intended primarily for teachers, counselors, supervisors, and administrators in elementary and secondary schools. This program provides in-depth opportunities for further professional growth and specialization for persons who have completed the master's degree. A minimum of 60 hours of graduate credit—which may include the master's degree—is required. Specializations include language arts/children's literature, counseling, curriculum studies, early childhood education, educational leadership, educational technology, English education, foreign language education, gifted education, mathematics education, reading/ literacy, science education, social studies education, and special education.

The school-level academic course plan will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

The degree is a non-thesis degree requiring a minimum of 60 hours of credit at the graduate level.

Educational Leadership requires 63 hours of credit at the graduate level, and does not offer a thesis option. The curricular requirements include:

- Six hours in Humanistic and Behavioral Studies.
- Six hours in research.
- 42 hours in the area of specialization.
- Nine hours in an allied field.

The student must complete all required course work with a 3.0 GPA or higher. No final exam is required for this specialization.

Educational Technology requires 60 hours of credit at the graduate level, and does not offer a thesis option. The curricular requirements include:

- Six hours in Humanistic and Behavioral Studies.
- Six hours in research.
- 24 hours in the area of specialization.
- Three hours in technology applications and issues.
- Three hours in learning theory.
- Three hours in curriculum related issues.
- 15 hours of electives.

The student must complete all required course work with a 3.0 GPA or higher. No final exam is required for this specialization. [Please note: Admissions to the Ed.S. in Educational Technology are currently suspended.]

Counseling requires 60 hours of credit at the graduate level, and does not offer a thesis option. The curricular requirements include:

- 60 hours in the specialization.
- A 300 hour internship.

The student must pass a comprehensive final exam consisting of a series of written questions pertaining to the student's specialization.

The specializations in language arts/children's literature, curriculum studies, early childhood education, English education, foreign language education, gifted education, mathematics education, reading/literacy, science education, social studies education, and special education require 60 hours of credit at the graduate level, and do not offer a thesis option. The curricular requirements include:

- Six hours of Humanistic and Behavioral Studies.
- Six hours in research.

- 30 hours in the area of specialization.
- 18 hours of electives.

The student must complete all required course work with a 3.0 GPA or higher, and must successfully complete a required sixhour practicum in the area of specialization. No final exam is required for these specializations.

## **Education**, M.A.

#### Curriculum & Instruction (AEDCI) or Educational Leadership and Research (AELRC)

The **Master of Arts** degree is open to students with a bachelor's degree who meet the Graduate School and school entrance requirements. It does not function as a certification program. Minimum course requirements include 36 semester hours; both thesis and non-thesis options are available. Specializations include: applied research, measurement and evaluation, higher education administration, curriculum studies, and educational technology.

The school-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

The degree has a thesis option for each specialization.

Applied Research, Measurement, and Evaluation requires 37 hours of credit at the graduate level with a thesis option of 31 hours of coursework, and six hours of thesis, or 37 hours of coursework. The curricular requirements include:

- At least 19 hours at the 7000 level or above (excluding thesis research hours).
- A primary area consisting of a minimum of 22 hours of earned credit in the core area.
- Three hours from Educational Research and Measurement, or a thesis option for six hours.
- Six hours from an allied field.

The student must pass a comprehensive final exam consisting of a series of written questions pertaining to the specialization.

Higher Education Administration requires 36 hours of credit at the graduate level with a thesis option of 30 hours of coursework, and six hours of thesis, or 36 hours of coursework. The curricular requirements include:

- At least 18 hours at the 7000 level or above (excluding thesis research hours).
- A primary area consisting of a minimum of 24 hours of earned credit in the core area.
- Three hours of supervised practice.
- Nine hours of electives from higher education, <u>or</u> a thesis option for six hours and a three-hour elective from higher education.

The student must pass a comprehensive final exam consisting of a series of written questions pertaining to the specialization.

Educational Technology requires 36 hours of credit at the graduate level, and does not offer a thesis option. The curricular requirements include:

- At least 18 credit hours at the 7000 level or above (excluding thesis research hours).
- A primary area consisting of 21 hours of earned credit in the core area.
- Three hours from Humanistic and Behavioral Sciences.
- Three hours in research
- Nine hours of electives in educational technology

The student must pass a comprehensive final exam consisting of a series of written questions pertaining to the program area.

Curriculum Studies requires 36 hours of credit at the graduate level with a thesis option of 30 hours of coursework, and six hours of thesis, or 36 hours of coursework. The curricular requirements include:

- At least 18 hours at the 7000 level or above
- A primary area consisting of 15-18 hours of earned credit in the core area
- Three-six hours from Humanistic and Behavioral Sciences
- Three hours in research
- Six-nine hours of electives

The student must pass a comprehensive final exam consisting of a series of written questions pertaining to the specialization.

## Educational Leadership & Research, Ph.D.

# Educational Leadership and Research (PEDLR) or Curriculum and Instruction (PEDCI)

Educational Leadership & Research, Ph.D. or Curriculum & Instruction, Ph.D.

The **Doctor of Philosophy (PhD)** programs in the School of Education are offered through two degrees. The first degree is in educational leadership and research. Specializations include: educational leadership, higher education administration, educational research methodology, and educational technology. [Please note: Admissions to the PhD with a specialization in educational technology are currently suspended.] The second degree is in curriculum and instruction. Specializations include: language arts/children's literature, curriculum studies, early childhood education, English education, foreign language education, gifted education, mathematics education, reading /literacy, science education, social studies education, and special education.

The school-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

The degree requires the successful completion of a dissertation as its final requirement. Ninety hours of credit at the graduate level must be earned including 9-18 hours of credit for the dissertation.

The curricular requirements for Educational Leadership include:

- A core area of 20 hours which includes 14 hours of research, and six hours in a school core.
- 24 hours in the primary area of P-12 Leadership specialization.
- Nine hours of dissertation research.
- Admitted students are anticipated to have a master's degree; students who do not have a master's degree must complete a minimum of 37 hours in addition to the 53 hours required for the PhD.

The student must pass a General Exam consisting of written questions and a comprehensive oral exam; write a dissertation proposal and pass an oral defense of the proposal; and write a dissertation and pass an oral defense of the dissertation.

The curricular requirements for Higher Education Administration include:

- A core area of 19 hours which includes 11 of research, and six hours in a school core.
- 24 hours in the primary area of higher education, of which at least 15 hours must be completed during the doctoral program. If a student does not have a previously earned graduate degree in higher education, all 24 hours must be in the primary area of higher education.
- Nine hours of dissertation research.
- Admitted students are anticipated to have a master's degree; students who do not have a master's degree must complete a minimum of 38 hours in addition to the 52 hours required for the PhD.

The student must pass a General Exam consisting of written questions and a comprehensive oral exam; write a dissertation proposal and pass an oral defense of the proposal; and write a dissertation and pass an oral defense of the dissertation.

The curricular requirements for Educational Research Methodology include:

- A school core area of six hours.
- 14 hours in educational leadership and research program courses.
- 12 hours in the primary area of educational research methodology.
- 12 hours in an allied field.
- Three hours of advanced research practicum.
- Nine hours of dissertation research.
- Admitted students are anticipated to have a master's degree; students who do not have a master's degree must complete a minimum of 34 hours in addition to the 56 hours required for the PhD.

The student must pass a General Exam consisting of written questions and a comprehensive oral exam; write a dissertation proposal and pass an oral defense of the proposal; and write a dissertation and pass an oral defense of the dissertation.

The curricular requirements for Educational Technology include:

- A core of 19 hours, which includes six hours in a school core.
- 18 hours in the primary area of educational technology.
- Three hours in technology applications and issues.
- Three hours in learning theory.
- Three hours in curriculum related issues.
- Nine hours of dissertation research.
- Admitted students are anticipated to have a master's degree; students who do not have a master's degree must complete a minimum of 35 hours in addition to the 56 required for the PhD.

The student must pass a General exam consisting of written questions and a comprehensive oral exam; write a dissertation proposal and pass an oral defense of the proposal; and write a dissertation and pass an oral defense of the dissertation.

The curricular requirements for the PhD in Curriculum and Instruction include:

- 50 hours in the area of specialization (e.g., language arts/children's literature, curriculum studies, early childhood education, English education, foreign language education, gifted education, mathematics education, reading/literacy, science education, social studies education, and special education), which includes six hours in a school core.
- A minimum of nine hours in research methods.
- 12-18 hours of dissertation research.
- Admitted students are anticipated to have a master's degree; students who do not have a master's degree must complete a 90-hour curriculum required for the PhD.

The student must pass a General exam consisting of written questions and a comprehensive oral exam; write a dissertation proposal and pass an oral defense of the proposal; and write a dissertation, and pass an oral defense of the dissertation.

## Educational Leadership, M.Ed.

#### (ELDR)

#### Master of Education (MEd)

The **Master of Education** (**MEd**) is designed to advance the knowledge base of certified teachers, provide preparation for individuals interested in leadership positions in schools and school districts, and prepare school counselors.

Program areas include: educational leadership; gifted education, special education, counseling with concentrations in clinical mental health counseling and school counseling; and curriculum and instruction with specializations in early childhood

education, elementary education, English education, foreign language education, language arts/children's literature, mathematics education, reading/literacy, science education, social studies education, and special education.

The school-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

#### Educational leadership

Educational leadership is a cohort program with 39 hours of specific coursework designed to meet the requirements of the Louisiana Department of Education. The curricular requirements include:

- At least 36 hours at the 7000 level or above.
- A primary area of 39 hours of earned credit in the core area.
- Six hours of supervised internship.

The student must pass a comprehensive final exam consisting of a series of written questions pertaining to the specialization.

# **Elementary Education Grades 1-5, M.A.T.**

#### (MATE)

The **Master of Arts in Teaching** in Education (Holmes Program)—designed for prospective elementary teachers—integrates courses and experiences necessary for teacher certification as well as for the degree.

Elementary education majors complete both undergraduate and graduate degrees in education at LSU. Those students who select the five-year Holmes teacher education program and enter as juniors take education and liberal arts courses for two years and graduate with a bachelor's degree in education. Completing this undergraduate degree is a prerequisite to entering the teacher education program. Admission to this fifth year program is contingent on admission to The Graduate School.

The MAT is a cohort program with a specific school-level academic course plan, and is a non-thesis degree requiring a special project. The curricular requirements include:

- At least 24 hours at the 7000 level or above.
- A primary area consisting of 33 hours of earned credit in a specified field of study.
- One three-hour graduate elective selected in consultation with major advisor.

The student must pass a final exam consisting of a presentation and defense of a written special project.

## Gifted Education, M.Ed.

#### (EGFE)

#### Master of Education (MEd)

The **Master of Education** (**MEd**) is designed to advance the knowledge base of certified teachers, provide preparation for individuals interested in leadership positions in schools and school districts, and prepare school counselors.

Program areas include: educational leadership; gifted education, special education, counseling with concentrations in clinical mental health counseling and school counseling; and curriculum and instruction with specializations in early childhood education, elementary education, English education, foreign language education, language arts/children's literature, mathematics education, reading/literacy, science education, social studies education, and special education.

The school-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

#### **Gifted Education**

Gifted Education requires 36 hours of credit at the graduate level, and does not offer a thesis option. The curricular requirements include:

- Six hours in research and measurement.
- 21 hours in the concentration.

• Nine hours of coursework related to the appropriate teaching field of the student, i.e., elementary or secondary majors. The student must pass a comprehensive final exam consisting of the PRAXIS exam for Gifted Education.

## **Instructional Coaching Graduate Certificate**

#### (CINCO)

The *Graduate Certificate in Instructional Coaching* prepares both alternatively certified and traditionally prepared educators to support and enhance teacher knowledge, skills, and dispositions through researched-based peer coaching models. This hybrid program is a four course sequence, completed in 3 semesters. Courses can transfer to Masters Degree or Educational Specialist in Educational Leadership or Curriculum and Instruction.

COURSES	CREDIT HOURS
EDCI 7930 Seminar: Curriculum and Instruction	3
EDCI 7931 Seminar: Curriculum and Instruction	3
ELRC 7450 Supervision of Instruction in Elementary and Secondary Schools	3
ELRC 7404 Internship in Educational Administration	3
TOTAL CREDIT HOURS	12

## Secondary Education Grades 6-12, M.A.T.

(MATS)

Secondary Education Grades 6-12, M.A.T.

The Secondary Holmes Program is a rigorous 12 month graduate program leading to a Louisiana teaching certificate in grades 6 - 12 and the Master of Arts in Teaching degree. Established in 1990, this program prepares teachers at the graduate level in secondary subjects (English, mathematics, social studies, biology, chemistry, and physics).

Students take much of their course work in subject area cohorts. A first summer of study is followed by two semesters of course work, which include practicum experiences in carefully selected schools and completion of a teacher research project.

Prospective teachers in secondary areas (mathematics, English, social studies, science) first complete an undergraduate program in a college offering a degree in their area of teaching interest. Admission to this teacher education program is contingent on admission to The Graduate School.

Eligible applicants should have:

- A minimum 3.00 GPA
- An acceptable GRE composite score
- Passing PRAXIS I (or an official ACT/SAT score of 22/1030 or higher on file with LSU) & PRAXIS II specialty area test(s) scores

It is recommended that applicants hold a degree or have completed at least 30 hours of course work in the content area they wish to teach.

Applicants may include candidates with degrees, as well as seniors finishing their programs by the May prior to enrollment in the various academic areas. Meeting minimum admission requirements does not guarantee admission to the fifth-year teacher education program. Holmes Admissions Committees will select from among qualified applicants those students to be admitted into the subject-specific, fifth-year cohorts.

## **Special Education, M.Ed.**

(ESPE)

#### Master of Education (MEd)

The **Master of Education** (**MEd**) is designed to advance the knowledge base of certified teachers, provide preparation for individuals interested in leadership positions in schools and school districts, and prepare school counselors.

Program areas include: educational leadership; gifted education, special education, counseling with concentrations in clinical mental health counseling and school counseling; and curriculum and instruction with specializations in early childhood education, elementary education, English education, foreign language education, language arts/children's literature, mathematics education, reading/literacy, science education, social studies education, and special education.

The school-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

#### **Special Education**

Special Education requires 36 hours of credit at the graduate level, and does not offer a thesis option. The curricular requirements include:

- At least 12 hours at the 7000 level or above.
- A core area of 18 hours.
- Two specializations with at least 18 hours required in each; these specializations are Instructional and Behavioral, and Diagnosis and Evaluation.

• The Diagnosis and Evaluation specialization may require an additional three credit hours of diagnosis and remediation of reading problems; this will be determined by the major advisor based on the previous course work of the student.

The student must pass a comprehensive final exam consisting of a series of written questions pertaining to the student's specialization.

#### **Urban and Community Education Graduate Certificate**

#### (CUCE)

The purpose of the *Graduate Certificate in Urban and Community Education* is to provide post baccalaureates a deep understanding of urban residents' experiences of education and community outreach for the purpose of equipping them with critical skills for creating strong partnerships between schools, families, businesses, governmental entities, and communities. Through a dedicated focus on education policy; the history of urban education; current trends in school reform theory, practice, and data-driven decision-making; and program development, participants will earn an applied academic credential focused on school and community engagement in urban settings. This training will be particularly useful for career enhancement opportunities in non-profit organizations, governmental relations, and administration of public entities, as well as enhancing grant-writing activities and the development of applied research agendas.

Students will be required to take 18 hours of coursework comprised of four (12 credits) core courses and two (6 credits) elective courses across the Department of Sociology, School of Leadership and Human Recourse Development, and School of Education.

For further information please contact the School of Education at 225-578-6867 fmathe1@lsu.edu

## **Electrical & Computer Engineering (Graduate Program)**

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

The Division of Electrical & Computer Engineering in the School of Electrical Engineering & Computer Science offers programs of study leading to the MS and PhD degrees. Areas of study include Automatic Control (system identification, robust, adaptive, fault-tolerant, and networked feedback control); Communications and Signal Processing (digital, computer, and wireless communications, data compression, digital signal processing, and image processing); Computing (computer architectures, computer graphics, parallel and distributed computing, compilers, embedded systems, reconfigurable computing, computer vision, and fault-tolerant computing); Electronics (electronic materials and devices, micro- and nano-technologies, nanophotonics, electro-optics and VLSI circuits/systems design); and Power (power electronics, harmonic analysis, electric machines, variable speed drive, power system stability and control, renewable energies, smart grid and energy conversion). An interdisciplinary concentration in Information Technology is also available.

There are approximately 80 students enrolled in Electrical and Computer Engineering MS and PhD programs. The division graduate faculty is comprised of 13 professors, six associate professors, and five assistant professors.

#### Administration

Jerry L. Trahan, Chair

Xuebin Liang, Graduate Advisor

TELEPHONE

ECE ADMISSIONS INQUIRY E-MAIL

225-578-5241 eceapply@lsu.edu www.lsu.edu/eng/ece/

## **Minor in Electrical Engineering**

- Graduate students from outside the division desiring a minor in electrical engineering must take at least nine credits of the division's senior/graduate (4xxx) or graduate (7xxx) level courses. For a PhD student, six or more credits must be from 7xxx level courses; for an MS student, a minimum of three credit hours must be from graduate (EE 7xxxx) level courses. The program must be approved by the Graduate Studies Committee.
- The ECE Division does not require a separate examination for students minoring in electrical engineering.

## Facilities

The division has ample computing resources including several multiprocessors used for purposes such as design automation, simulations and GPGPU programming. The Visual and Geometric Computing Lab supports research in computer graphics, geometric modeling, visualization and vision, geometric and medical data fusing, and deformation analysis, among others. The Internet Teaching Lab houses routers and switches and is used for studying concepts in internetworking research.

The Electronic Material and Device Lab (with a Class-100 clean room) is utilized for research in semiconductor material growth, characterization, device fabrication, and measurements. The VLSI Systems Design Lab is used to design smart silicon chips and for device modeling. It is equipped with CAD tools and a high-speed data acquisition system for digital, analog/mixed-signal designs.

The McNeil RF/Communications Lab houses a vector network analyzer, spectrum analyzer, signal generators and communication and signal processing boards. The PreSonus Digital Signal Processing Lab houses DSP development boards, code composer, and audio hardware. The Control Lab uses xPC Target for real-time seamless interfacing of Matlab/simulink and physical systems and hardware-in-the-loop designs.

The Power Electronics Lab offers hands-on experience with devices such as AC to DC converters, AC Voltage controllers, and circuit designs capable of handling large amounts of power. The Electric Machines Lab and Variable Speed Drive (VSD) Lab are equipped with conventional machines, as well as motors for special purposes. It also has power electronic inverters, and DSP boards for real-time simulation and control.

In addition, students can utilize the university resources of high-performance computing at the Center for Computation and Technology (CCT) and microfabrication and synchrotron beam-line capabilities at the Center for Advanced Microstructures and Devices (CAMD).

## Admission

Applications for graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts must be sent directly from the registrar's office or other appropriate official from your university to LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. If your university offers electronic official transcripts, they can be sent to gradtranscripts@lsu.edu. Official test scores must be sent directly from the testing servicer. ETS test scores can be sent to LSU using the LSU Graduate School institution code of 6373; other test scores can be sent by selecting LSU from their list of universities. Photocopies of transcripts and test scores uploaded with your application may help speed up processing time, but are not official. If you are admitted, the Graduate School will require official transcripts if you did not submit them with your application.

Meeting the minimum admission requirements established by the Graduate School does not necessarily ensure acceptance into the division's graduate program. The division reviews the record of each applicant to assess promise for success at the graduate level, taking into consideration grade-point average, undergraduate preparation, recommendations, GRE scores, TOEFL, IELTS, or PTE scores (for international applicants), and any other pertinent information. Division recommendations are usually made within a month of the division receiving the complete application.

More details on applying to the division can be found at www.lsu.edu/eng/ece/academics/graduate/admissions/index.php.

## **Financial Assistance**

The division attempts to provide financial support for all qualified doctoral students and for outstanding MS students.

**Teaching Assistantships (TAs)**: All new applicants are automatically considered for available teaching assistantships in ECE. Nearly all new teaching assistantships are usually awarded in the fall semester. Awards are competitive with usually more applicants than available TA positions. Only completed applications on file are considered when the award decisions are made. Hence, it is helpful to have your application file completed early. Applicants selected to receive assistantships will be notified by the division.

**Research Assistantships (RAs)**: Research assistantships are selected individually by ECE faculty members. It is not uncommon for a prospective student to contact one or more faculty members whose research interest matches his/her own to determine if they have any open RA position. Information on research interests of faculty members is given on the division web page at www.lsu.edu/eng/ece/people/index.php.

The division also offers scholarships and fellowships funded through alumni and donors. More information on these awards can be found on our webpage www.lsu.edu/eng/ece/academics/graduate/index.php.

## **Graduate Faculty**

(check current faculty listings by department here)

Pratul K. Ajmera (EM) • Semiconductor materials and devices, device physics, material growth and characterization, device fabrication, MEMS and integrated microsystems

Jin-Woo Choi (M) • MEMS & BioMEMS, biosensors and bioelectronic devices, microfluidic devices and systems, lab-on-a-chip systems, nanomagnetic particle separators for biomedical applications, nanoscale transducers

Leszek S. Czarnecki (M) • Power electronics, nonsinusoidal systems, network analysis and synthesis

Theda Daniels-Race (M) • Characterization of hybrid electronic materials, novel optoelectronic device fabrication, growth of band-gap engineered III-V nanostructures

Mehdi Farasat (6A) • Design and control of power electronics converters, electric drives, plug-in/hybrid/fuel-cell electric vehicles, renewable energy systems, AC/DC/hybrid microgrids

Martin Feldman (M) • Applied optics, x-ray lithography, micromachining

Guoxiang Gu (M) • Modeling and control of networked feedback systems, statistical signal processing with applications, and cooperative estimation and control

Amin Kargarian Marvasti (6A) • Power systems operation and planning, decision-making in smart grids, renewable energy and energy storage integration, infrastructure interdependency analyses

David M. Koppelman (M) • Computer architecture and microarchitecture, specialized processors

Xin Li (M) • Visual computing, computer graphics, vision, geometric data modeling, processing, analysis and simulation Xuebin Liang (M) • Wireless communications, information theory, signal and image processing, neural networks, computation and complexity

Michael L McAnelly (3P) • Power system protection, operation and control

Shahab Mehraeen (M) • power systems stability and control, renewable energies, smart grid, energy conversion

Morteza Naraghi-Pour (M) • Wireless communication, wireless sensor and ad hoc networks, communication theory, telecommunication networks, neural networks, signal processing

Kidong Park (6A) • BioMEMS and microfluidic devices, single cell analysis, cellular biomechanics, resonant MEMS devices, bioanalytic instrumentation

Lu Peng (M) • Computer architecture, microarchitecture, system performance analysis, network processor

Suresh Rai (M) • Evolvable computing, network traffic engineering, wavelets, fault tolerant computing, digital logic testing and neural modeling, reliability evaluation of multiprocessor and distributed networks

Jagannathan Ramanujam (M) • Optimizing compilers, high performance computing, embedded systems, low power computing, computer architecture

Ashok Srivastava (M) • Low power VLSI design, nanoelectronics, RF MEMS/NEMS, microsystems

Jerry L. Trahan (M) • Theory of computation, models of parallel computation, reconfigurable meshes, run-time reconfiguration, reliability, algorithm design and analysis

Ramachandran Vaidyanathan (M) • Parallel and distributed computing, algorithms, reconfigurable systems, interconnection networks, optical interconnects

Georgios Veronis (M) • Theory and simulation of photonic materials and devices, nanoscale photonic devices, plasmonics, computational electromagnetics

Shuangqing Wei (M) • Physical layer security, cognitive radio networks, wireless sensor networks and multiuser information theory

Hsiao-Chun Wu (M) • Statistical signal processing for telecommunication, ultrasonics, speech, image and biomedical

applications, wireless communications, detection and estimation, theoretical studies of systems and filters

Jian Xu (6A) • Biomedical instrumentation, bio-nano, image guided surgery, biomedical imaging

Xiangwei Zhou (6A) • Wireless communications, statistical signal processing, cross-layer optimization, and cognitive radio and spectrum coexistence

#### **Electrical Engineering, M.S.EE**

#### (MEE)

The Master's program is open to qualified students holding BS degrees in electrical and/or computer engineering or in a related discipline. Both a thesis and a non-thesis option are available. Each candidate for a master's degree is required to have good general knowledge in his/her field of specialization and, for the thesis option, acquire a reasonable level of competence in research skills. In order to graduate, a student must meet the minimum requirements described below and achieve a 3.0 or higher grade point average (GPA) on a scale of 4.0 on all electrical engineering courses applicable towards his/her graduate degree. The MS student is required to have an examination committee that includes at least two graduate faculty members from the ECE division and have an approved Plan of Study by the end of the second semester or upon completion of 15 or more hours of credit. All coursework must be approved by the major professor and the division's Graduate Studies Committee. Up to twelve hours of credit from a US institution may be applied towards a master's degree program upon approval. Courses at the (4xxx) level, which are *required* in the Electrical and Computer Engineering BS programs at LSU are generally not acceptable for graduate credit. A complete and current set of requirements appears in the ECE Graduate Handbook that can be accessed at www.lsu.edu/eng/ece/files/Grad\_Handbook.pdf.

# **Thesis Option**

The MS degree with the thesis option requires a thesis and 30 hours of credit at the graduate level, including a maximum of six hours of credit for the thesis. The minimum curricular requirements include the following:

- Six hours of thesis credit (EE 8000).
- 12 hours of credit in the division's graduate (EE 7xxx) level courses, excluding independent study courses.
- 12 hours of suitable electives\*+.

These 30 hours of coursework are subject to additional requirements including the following:

• The maximum credit permitted at the 4000-level is 12 hours.

- A maximum of 12 hours of coursework can be from EE 4x0x, EE 7x00, EE 709x, and other individual study/seminar/special topics courses.
- EE 709x cannot be used to satisfy the EE 7xxx requirements.
- Courses taken outside the division need approval of the Graduate Studies Committee.

\*May include a maximum of three credits of EE 709x.

+ In addition, students may take a maximum of 12 hours outside the division.

The student must pass a final exam consisting of a thesis defense.

## Information Technology (IT) Concentration MS Thesis

- Satisfy the minimum requirements for the MS Thesis option in EE
- 15 of the 30 hours of required credit should come from the IT Concentration approved course list using at least three of the course groupings listed at: www.ece.lsu.edu/grad/IT\_area.html, with a minimum of three credits from each of the three selected groups.
- Thesis topic must be related to Information Technology.

# **Non-Thesis Option**

The MS degree with the non-thesis option requires 36 hours of credit as follows:

- Three hours of project credit (EE 709x)<sup>1</sup>
- 15 hours of credit in the division's graduate (EE 7xxx) courses, excluding independent study courses.
- 18 credit hours of suitable electives <sup>2,3</sup>

These 36 hours of coursework are subject to additional requirements including the following:

- The maximum credit permitted at the 4000-level is 12 hours.
- No more than 18 hours of coursework can be from EE 4x0x, EE 7x00, EE 709x, and other independent study/seminar/special topics courses.
- EE 709x cannot be used to satisfy the EE 7xxx requirements.
- Courses taken outside the division need approval of the Graduate Studies Committee.

<sup>1</sup> - EE 709x must be taken in the final year of MS graduation.

<sup>2</sup> - May include three credits of EE 709x.

<sup>3</sup> - In addition, students may take at most 12 hours outside the division.

The student must pass a final exam consisting of a written project report and an oral exam administered by a three-member committee.

## Information Technology (IT) Concentration MS Non-Thesis

- Satisfy the minimum requirements for the MS Non-Thesis option in EE.
- 21 of the 36 credit hours required should come from the IT Concentration approved course list using at least three of the course groups listed at: www.ece.lsu.edu/grad/IT\_area.html, with a minimum of three credits from each of the three selected groups.
- EE 709x Independent Research can be used to satisfy no more than 3 hours and only if the topic is related to Information Technology and approved by the Graduate Studies Committee.

#### **Electrical Engineering, Ph.D.**

#### (PEE)

The PhD degree is conferred only for work of distinction displaying original scholarship and marked capabilities that lead to significant scholastic achievements. In no case is the degree awarded solely on the basis of study, however intense, extending over any prescribed period of time or in recognition of faithful performance or prescribed work. A division-level academic course plan is developed in consultation with and approval of the student's major advisor and the division's Graduate Studies Committee. The student's major advisor chairs the advisory committee that includes at least three members of the graduate faculty and satisfies the LSU Graduate School's requirements for doctoral committees.

The PhD degree requires a dissertation which is a work of original scholarship. In addition, 42 hours of credit at the senior/graduate (4xxx) and graduate (7xxx) levels must be earned beyond the bachelor's degree, not including a minimum of 12 hours of dissertation credits (EE 9000). The minimum curricular requirements include the following:

• 15 credit hours of division's EE 7xxx courses, excluding independent study courses.

• 27 credit hours of approved electives at the graduate (4xxx, 7xxx) levels\*.

These 42 hours of coursework are subject to additional requirements including the following:

- EE 7xx credits must be obtained at LSU in major area of the candidate.
- Maximum nine credits of 4000-level courses are allowed.
- Maximum three credits of EE 709x are allowed only in the approved electives area.
- No course with a grade of "C" or below will be accepted.
- At least 21 credits must be in EE 4xxx or EE 7xxx.

\*4000-level courses counted towards the LSU B.S. degree are not accepted.

The student must pass the Qualifier before any dissertation credits can be taken. After completing the required coursework, the student must pass a general exam in which the student defends his/her research proposal and a final exam, consisting of the dissertation defense.

# **Interdisciplinary Program in Engineering Science (Graduate Program)**

# **Program Overview**

The Donald W. Clayton Graduate Program in Engineering Science allows students to pursue graduate study and research in interdisciplinary areas that cross two or more disciplines in different departments or in program areas not currently associated with an existing department.

The interdisciplinary program spans the fields of engineering, science, business, and even law. In principle, a program in study in almost any imaginable concentration area in engineering can be designed. In practice, many students have developed programs in one of five concentration areas: materials science and engineering, environmental and technological hazards engineering, information technology and engineering, construction management, and biological engineering.

The concentration area in materials science and engineering involves coursework in mechanical, electrical, chemical and civil engineering, computer science, chemistry, and physics. The environmental and technological hazards engineering concentration area has components primarily from chemical and civil engineering, and environmental science, and secondarily from industrial, biological, and petroleum engineering, chemistry, business and sometimes law. The information technology and engineering concentration area encompasses the disciplines of industrial, electrical and mechanical engineering, and computer science,

information systems and decision science, library information systems, and others. Likewise, the bioengineering concentration area involves agricultural, civil, mechanical, chemical, and industrial engineering, chemistry, and the biological sciences.

The Ph.D. in Engineering Science with a concentration in biological engineering is the terminal degree in this field, which includes bioprocess, biotechnical, biomedical, agricultural, bioenvironmental engineering, and related areas. The concentration in construction management includes research in several major areas: advanced material and sustainability, building science for disaster-resistant communities, built environment informatics, capital facility management, and interdisciplinary research in construction.

Degrees awarded through this program do not provide a direct route to professional engineering registration and practice. Students with degrees in a pure or applied science, who are considering registration as professional engineers, are advised to consider pursuing a second baccalaureate degree in engineering.

#### **Program Administration**

Craig Harvey	
Associate Dean for Academic Affairs	
College of Engineering	
TELEPHONE	225-578-8761
FAX	225-578-4845
EMAIL	harvey@lsu.edu
WEBSITE	https://lsu.edu/eng/academics/graduate- programs/engrsci/index.php

Vicki Hannan

Coordinator, Donald W. Clayton Program in Engineering Science

TELEPHONE	225-578-5704
FAX	225-578-4845
EMAIL	eghann@eng.lsu.edu

#### **Admission and Financial Assistance**

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Admission is open to students without baccalaureate engineering degrees. Students wishing to work toward a degree through the Donald W. Clayton Graduate Program in Engineering Science should contact an appropriate faculty advisor in the college before applying for admission. "Engineering Science" should be indicated as the proposed field of study.

Limited research assistantships may be available to qualified students in the PhD program on a competitive basis directly through the Donald W. Clayton Program in Engineering Science. MS program students seeking financial assistance should pursue support through their faculty advisors.

## **Graduate Faculty**

(check current faculty listings by department here)

The Donald W. Clayton Graduate Program in Engineering Science is interdisciplinary. It encompasses the graduate faculty across all departments within the College of Engineering.

## **Degree Programs**

The interdisciplinary degrees of MS in Engineering Science and PhD in Engineering Science are offered. The MS program requires emphasis in at least two areas of study not available within a single department; the PhD requires at least two sub-areas of specialization within one or more academic departments, in addition to the major concentration area of study.

#### **Engineering Science, M.S.E.S.**

#### (MES)

The MS in Engineering Science program - offered with both thesis and non-thesis options - provides an opportunity for study in areas not represented by departments within the college. Students can enter the program with a baccalaureate degree in any field of engineering or in a pure or applied science. The departmental-level academic course plan for each student (due at the end of the first semester) will be developed in consultation with and approved by the student's graduate advisory committee. Graduate School regulations require the major professor (committee chair) to be a graduate faculty member from a department within the College of Engineering. The committee must also include at least two additional members of the graduate faculty.

The minimum requirements for the thesis option are 24 semester credit hours coursework, six additional hours of thesis research credit, and successful defense of a research thesis. The non-thesis option requires a minimum of 36 semester hours of coursework including a three-credit hour project course. The project course incorporates a written report and oral presentation to the graduate advisory committee. Additional coursework may be necessary for students lacking the proper course prerequisites or as required by the graduate advisory committee and specified on an approved plan of study.

At least one-half of the coursework must be College of Engineering courses and at least one-half of the total coursework must be at the 7000 level (excluding thesis hours). The program requires emphasis in at least two areas of study not available within a single department and at least 18 hours of required coursework and one academic year in residence must be completed after admission to the program.

A plan of study, approved by the student's advisory committee, must be submitted to the Associate Dean for Academic Affairs in the College of Engineering by the end of the first semester of enrollment at LSU.

Students applying to transfer into Engineering Science or to enroll as dual degree after one semester at LSU MUST complete the Engineering Science plan of study as part of the application process.

#### **Engineering Science, Ph.D.**

(PES)

The college accepts qualified students with bachelor's or master's degrees in engineering or a pure or applied science to work toward a PhD in this interdisciplinary program. The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee must consist of at least three members of the graduate faculty. The major professor (advisory committee chair) must be from a department within the College of Engineering and at least one member of the student's committee must come from a department offering the PhD degree in the College of Engineering. The advisory committee must also include representatives from the sub-areas of specialization.

A PhD departmental-level academic course plan, approved by the student's advisory committee, should be submitted to the Associate Dean for Academic Affairs in the College of Engineering by the start of the second semester of enrollment. Students applying to transfer into Engineering Science or to enroll as dual degree after one semester at LSU, MUST complete the Engineering Science PhD plan of study as part of the application process. This early plan of study will map directly to the Doctoral Degree Audit form required by the LSU Graduate School as candidates near completion of their coursework.

The student will be required to complete a minimum of 54 semester hours of approved coursework beyond the bachelor's degree and prepare a dissertation acceptable to his or her advisory committee and the Graduate School. At least half of the coursework (27 semester hours) must be taken in courses offered by departments within the College of Engineering. Requirements include 24 hours of coursework concentrated in at least two sub-areas of specialization within one or more academic departments. The remaining 30 semester hours of coursework must contain no more than 15 hours in any one department.

The interdisciplinary degrees of the Ph.D. in Engineering Science are offered in Materials Science and Engineering, Environmental and Technological Hazards Engineering, Information Technology Engineering, Biological Engineering, and Construction Management. The Ph.D. requires at least two sub-areas of specialization within one or more academic departments, in addition to the major concentration area of study.

## **English (Graduate Program)**

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

The Department of English offers graduate students the opportunity to work with an extraordinarily productive and internationally respected faculty that is particularly strong in interdisciplinary approaches to modern literature and culture. The department continues to build upon its long-standing strengths in critical theory and the literature of the United States. The department is strong in most traditional fields of study, including Renaissance, Victorian literature, and American literature. Special areas of strength include modern fiction, film, cultural studies, women's and gender studies, African-American literature, Southern literature, Louisiana and Caribbean studies, post-colonial literature, rhetoric, and popular culture. The highly ranked MFA program in creative writing combines individualized supervision of student work and literary study. Students in all three programs—MA, MFA, and PhD—complete all their coursework in small graduate seminars or workshop classes. Each program is distinguished by its flexibility, allowing the student significant input in determining a departmental-level academic course plan.

# Administration

Joseph Kronick, Chair

Christopher Rovee, Director of Graduate Studies

TELEPHONE

225-578-5922 or 225-578-7803

225-578-4129

FAX

E-MAIL

WEBSITE

http://www.lsu.edu/hss/english/graduate\_program/welcome\_page.php

## Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Admission is granted for the fall only. The application deadline for MFA and PhD applicants is January 15. All applicants must take the GRE general examination. A combined total of 308 on the verbal and quantitative elements of this examination is recommended, typically with a minimum of 160 on the verbal portion. A minimum undergraduate GPA of 3.2 is also recommended. International students whose native language is not English must also submit an acceptable TOEFL, IELTS, or PTE score. A writing sample is required of all applicants: eight to ten poems, 20 pages of prose, or a substantial portion of a script for those applying to the MFA program; a 15-20-page sample of sustained critical writing for those applying to the MA or PhD programs. Students should indicate on the writing sample the year it was written and for which degree program, if any.

#### **Financial Assistance**

Graduate assistantships are available for most students admitted to graduate study in this department. Editorial assistantships are awarded in conjunction with journals edited in the department. In order to be considered for financial aid, completed applications should be submitted no later than January 15 for PhD and MFA applicants..

## **Graduate Faculty**

(check current faculty listings by department here)

Christine Barrett (7M) • Renaissance British literature, critical theory, Shakespeare, Spenser and Milton James G. Bennett (EM) • Creative writing, fiction Jacob Berman (M) • American literature, cultural studies and postcolonial theory Michael P. Bibler (M) • American studies, Southern studies, sexuality studies, critical theory William Boelhower (EM) • Atlantic studies, critical theory, American Literature Lillian Bridwell-Bowles (EM) • Feminist rhetoric, rhetorical and literary history, composition studies Jason D. Buch (6A) • Screenwriting James M. Butts (6A) • Rhetoric and Composition James V. Catano (M) • Rhetorical and critical theory, gender studies, film studies, non-fiction prose Lauren Coats (M) • American literature Andrei Codrescu (EM) • Creative writing; literary translation; editor, Exquisite Corpse Kevin L. Cope (M) • 18th century literature Brannon Costello (M) • Southern literature, American literature J. Bainard Cowan (EM) • American and comparative literature, critical theory Moira Crone (EM) • Creative writing, fiction Rebecca W. Crump (M) • Victorian literature, bibliography Jennifer Davis (7M) • Fiction Writing, Literary Journals Francis A DeCaro (EM) • Folklore William W. Demastes (M) • Modern drama Femi Euba (M) • Playwriting, drama, third world literature

Daniel Mark Fogel (EM) • The modern novel, American literature, creative writing Carl Freedman (M) • 20th-century literature, critical theory, film Jesse M. Gellrich (M) • Medieval studies, critical theory Lara Glenum (M) • Creative writing, international modernism, the historical avant-garde Zachary L. Godshall (6A) • Screenwriting Richard Godden (6A) • Medieval culture, disability studies, Chaucer Angeletta Gourdine (M) • Diaspora literary and cultural studies, African-American literature, women's studies Barbara A. Heifferon (EM) • Writing (composition and rhetoric), medical rhetoric Katherine R. Henninger (M) • Southern American literature, women writers, photography and literature Fahima Ife-Weusi (6A) • English education, African-American studies Benjamin Kahan (7M) • American literature, queer studies Rodger Kamenetz (EM) • Creative writing, poetry, nonfiction, Jewish studies J. Gerald Kennedy (EM) • American literature, short fiction, narrative theory Emily Lauren King (6A) • Shakespeare and Renaissance drama Mari Kornhauser (M) • Screenwriting Joseph G. Kronick (M) • American poetry and nonfiction prose, critical theory Isiah Lavender III (7M) • African and African-American literature, cultural studies, science fiction John W. Lowe III (EM) • Southern, African-American, Louisiana, and ethnic literature; humor David Madden (EM) • Creative writing, fiction, literary and film criticism, the Civil War Michelle A. Massé (M) • Feminist and psychoanalytic theory, theory of the novel, 19th century British and American literature Patrick McGee (EM) • Film studies, cultural studies, Joyce and Irish studies Elsie B. Michie (M) • 19th-century British literature, the novel, women's studies, critical theory, film Richard C. Moreland (EM) • American literature, modernism, critical theory Laura Mullen (M) • poetry, theory, experimental fiction and nonfiction Anna K. Nardo (EM) • Renaissance literature, Milton, George Eliot Solimar Otero (7M) • Folklore, Caribbean culture Peggy W. Prenshaw (EM) • American literature, Southern studies, women's studies Pallavi Rastogi (7M) • Colonial and postcolonial literature, postcolonial theory, international cinema Malcolm Richardson (M) • Technical writing, medieval language and rhetoric Christopher Rovee (7M) • 18th- and 19th-century British literature; poetry and poetic theory; literature and the arts Keith A. Sandiford (EM) • 18th-century British literature and cultural studies, colonial West Indian culture and history Irina Shport (6A) • Linguistics, secondary English education Dave Smith (EM) • creative writing Emily Toth (EM) • American popular fiction, biography, women's studies Carolyn Ware (M) • Louisiana folklore, women's folklore Susan Weinstein (7M) • English education, social literacies, adolescent writing Sharon A. Weltman (M) • Victorian literature and culture, drama, gender studies, musical theater Joshua Wheeler (6A) • Creative writing, nonfiction, fiction James Wilcox (EM) • Creative writing, fiction

Michelle Zerba (7M) • Classics, comparative literature, literary theory, rhetoric

#### RECENT FACULTY PUBLICATIONS

A representative sample of faculty publications during recent years includes the following:

Jacob Berman, American Arabesque: Arabs, Islam, and the 19th-Century Imaginary

Michael P. Bibler, Cotton's Queer Relations: Same-Sex Intimacy and the Literature of the Southern Plantation, 1936-1968

James Catano, Ragged Dicks: Masculinity, Steel, and the Rhetoric of the Self-Made Man

Brannon Costello, Neon Visions: The Comics of Howard Chaykin

William W. Demastes, Staging Consciousness: Theater and the Materialization of Mind

Carl Freedman, The Incomplete Projects: Marxism, Modernity, and the Politics of Culture

Lara Glenum, Pop Corpse and All Hopped Up on Fleshy Dum Dums

Angeletta Gourdine, The Difference Place Makes: Gender, Sexuality, and Diaspora Identity

Katherine T. Henninger, Ordering the Façade: Photography in Contemporary Southern Women's Writing

Benjamin Kahan, Celibacies

J. Gerald Kennedy, Strange Nation: Literary Nationalism and Cultural Conflict in the Age of Poe

Isiah Lavender, ed., Dis-Orienting Planets: Racial Representations of Asia in Science Fiction

Michelle Massé, Over Ten Million Served: Gendered Labor in Language and Literature Workplaces

Elsie Michie, The Vulgar Question of Money: Heiresses, Materialism, and the Novel of Manners from Jane Austen to Henry James

Lauren Mullen, Enduring Freedom and Complicated Grief

Solimar Otero, Afro-Cuban Diasporas in the Atlantic World

Pallavi Rastogi, Afrindian Fictions: Diaspora, Race, and National Desire in South Africa

Malcolm Richardson, Middle Class Writing in Late Medieval London

Christopher Rovee, Imagining the Gallery: The Social Body of British Romanticism

Susan Weinstein, The Room is on Fire: The History, Pedagogy, and Practice of Youth Spoken Poetry

Sharon Aronofsky Weltman, Performing the Victorian: John Ruskin and Identity in Theater, Science, and Education James Wilcox, Hunk City

#### Creative Writing, M.F.A.

#### (MFACW)

The MFA in creative writing requires 42 hours of coursework, six hours of thesis research, a creative thesis, and defense of that thesis. Please see the Department of English <u>website</u> for specific course distribution requirements.

#### English, M.A.

#### (AENGL)

The thesis option MA requires 24 hours of coursework, six hours of thesis research credit, and a thesis. The non-thesis option MA requires 30 hours of coursework and a passing score on the MA examination. Please see the Department of English <u>website</u> for specific course distribution requirements.

#### English, Ph.D.

(PENGL)

The PhD program requires at least 48 hours beyond the bachelor's degree (please see the Department of English website for specific course distribution requirements), reading competency in a foreign language, a general exam (with a preliminary written component), a dissertation, and a final examination on the dissertation.

## **Entomology (Graduate Program)**

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

Entomology at LSU was established in 1889 with the appointment of I.H.A. Morgan as an entomologist in the Louisiana Agricultural Experiment Station. Everett Oertel's *History of Entomology in Louisiana* traces the history and development of entomology at LSU until 1976. The Department of Entomology was founded in 1964; L. Dale Newsom served as the first department head.

The department is responsible for all research, teaching, and extension related to entomology at LSU. Faculty members hold joint appointments with the university and the LSU Agricultural Center. The department's mission is threefold:

- to conduct basic and applied research leading to the development of new understanding of insect biology and of environmentally sound pest management technology
- to train students for careers with universities, industry, or government
- to provide entomological information and education to the general public

#### Administration

Michael J. Stout, Professor and Head	
James Ottea, Graduate Advisor	
TELEPHONE	225-578-0425
FAX	225-578-2257
WEBSITE	www.lsu.edu/departments/entomology

## Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: Graduate Student Services, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Inquiries for admission may be made to the department head, graduate advisor, or any faculty member. Successful applicants must meet the Graduate School requirements for admission. A 3.0 GPA and a minimum score of 300 (combined verbal and quantitative) on the GRE are required for a graduate research assistantship or fellowship. The department also requires three letters of recommendation and a statement of interest in entomology from each applicant.

## **Financial Assistance**

A limited number of departmental assistantships and fellowships are available on a competitive basis. Departmental assistantships are valued at \$17,000 for MS students and \$18,000 for PhD students and include a waiver of nonresident tuition. For more information about financial assistance, contact the department head.

## **Graduate Faculty**

(check current faculty listings by department here)

Christopher E. Carlton (M) • Insect systematics and biodiversity; Director, Louisiana State Arthropod Museum Robert Danka (3F) • Bee biology Jeffrey Davis (M) • Biology and management of insects of soybean Rodrigo Diaz (6A) • Biological control of invasive insects and weeds Lane D. Foil (M) • Physiological aspects of arthropod disease transmission and physical injury in livestock Richard A. Goyer (EM) • Forest entomology Abner Hammond (EM) • Chemical ecology Kristen B. Healy (6A) • Medical entomology Gregg Henderson (EM) • Natural history and control of urban insects, special emphasis on social insect behavior Fangneng Huang (M) • Biology and management of corn and small grains insects Claudia Husseneder (M) • Molecular biology of Formosan subterranean termites, microbial gut flora Seth J. Johnson (EM) • Population dynamics, parasite and predator ecology, insect migration B. Rogers Leonard (M) • IPM of cotton insects James A. Ottea (M) • Insect biochemistry, toxicology, and genetics Jorge E. Peña (3P) • Tropical fruit tree pest mangement Dorothy Prowell (EM) • Insect-plant interactions, conservation, molecular systematics T. Eugene Reagan (M) • Sugarcane insect ecology and pest management, imported fire ant ecology Dennis Ring (3F) • Biology and control of termites Timothy D. Schowalter (M) • Insect ecology, forest entomology Tara Smith (M) • Sweet potato pest management Richard N. Story (EM) · Biology and management of insect pests of horticultural crops Michael J. Stout (M) • IPM of rice insects, host-plant resistance Daniel Robert Swale (6A) • Insect physiology, neurobiology

#### Entomology, M.S.

#### Entomology (SENTM) or (PENTM)

The Department of Entomology offers degree programs leading to the MS and PhD. Areas of study include pest management, biological control, toxicology, physiology, behavior, systematics, migration, population ecology, apiculture, and molecular genetics. Opportunities are available for research dealing with insect biology in native and agricultural systems, including , pests of row crops, vegetables, ornamentals, households, and structures, as well as insect pests of medical and veterinary importance

#### Entomology, Ph.D.

#### Entomology (SENTM) or (PENTM)

The Department of Entomology offers degree programs leading to the MS and PhD. Areas of study include pest management, biological control, toxicology, physiology, behavior, systematics, migration, population ecology, apiculture, and molecular genetics. Opportunities are available for research dealing with insect biology in native and agricultural systems, including , pests of row crops, vegetables, ornamentals, households, and structures, as well as insect pests of medical and veterinary importance

## **Environmental Sciences (Graduate Program)**

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

The Department of Environmental Sciences is a multidisciplinary research and academic unit whose mission is to provide the academic talents and knowledge needed to solve environmental problems that are important to Louisiana, the Gulf of Mexico region, and comparable areas throughout the nation and the world. The department offers a variety of courses relating to the environment. Faculty from other academic units participate in teaching some of the department's courses. Likewise, departmental faculty serve as adjuncts in several departments that offer master and doctoral programs.

## Administration

Kevin Armbrust, Chair	
Crystal Johnson, Graduate Advisor	
Charlotte St. Romain, Academic Coordinator	
TELEPHONE	225-578-8522
FAX	225-578-4286
E-MAIL	envs@lsu.edu
WEBSITE	www.environmental.lsu.edu

## **Graduate Minor in Environmental Sciences (GENVS)**

A minor in Environmental Sciences is available to graduate students in other graduate degree programs. The minimum required credit hours for the minor are nine hours, with three credit hours from each of the three priority groups. ENVS 7700 (Integrated Environmental Issues) can be counted as either one of the three priority areas. Of those nine hours, at least three hours must be at the 7000-level.

# Graduate Minor Wetland Science and Management (GWSM)

The Departments of Environmental Sciences and Oceanography and Coastal Sciences have joined together to establish a minor in wetland science and management. This minor, requiring 12 hours of approved courses, provides masters' and doctoral students in

both departments with a strong background in wetland science and policy and enhances their understanding of ecosystem processes in wetland ecosystem management.

## Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Applications for admission are received from the Office of Graduate Student Services and evaluated by the department. Applicants must adhere to the application deadlines established by the Graduate School. To guarantee admission for the fall semester, application materials should be submitted prior to **May 15th**. Applications for the spring semester should be complete by **October 15th**. Admission is contingent on assignment to a faculty member.

Students seeking admission must submit satisfactory credentials from previous study, acceptable GRE and GPA scores, and three letters of recommendation. International students whose native language is not English must also submit an acceptable TOEFL, IELTS, or PTE score. Admission requirements include:

- Bachelor's degree with GPA of at least 3.00 on a 4.0-point scale
- GRE verbal and quantitative score total of at least 300
- TOEFL score of at least 213 computer or 550 paper, or 79 Internet, IELTS score of at least 6.5; or PTE score of at least 59 (International students only)

The graduate programs in the Department of Environmental Sciences are designed primarily for students with backgrounds in science or engineering. However, students with exceptional academic records and backgrounds in other fields are encouraged to apply. Preparatory undergraduate coursework for the graduate programs includes: three hours of introductory statistics (EXST 2201 or equivalent); three hours of chemistry; three hours of biological sciences for science majors (e.g. BIOL 1201) and six additional hours of natural science courses. Students must have earned at least a C (or a 2.0 on a 4.0 scale) in their pre-requisite classes for those classes to satisfy admission requirements, regardless of where those classes were taken. Incoming students who need to satisfy any prerequisite requirements are expected to have taken the appropriate course(s) by the end of their second semester of residency.

## **Graduate Faculty**

(check current faculty listings by department here)

Kevin L. Armbrust (M) • Environmental Chemistry and Toxicology Christopher D'Elia (M) • estuarine ecology, energy and policy Denise E DeLorme (M) • Qualitative social science research methods, stakeholder analysis and engagement; strategic environmental communication; health communication David E. Dismukes (M) • Analysis of economic, statistical, and public policy issues in energy and regulated industries Linda Hooper-Bui (M) • insect ecology Aixin Hou (M) • microbial ecology Ryan Blake Hudson (M) • Environmental, Natural Resources, and Ocean & Coastal Law and Policy Crystal Johnson (M) • microbiology Nina Lam (M) • remote sensing/GIS Ed Laws (M) • phytoplankton ecology, aquatic pollution Slawomir Lomnicki (6A) • atmospheric chemistry Ed Overton (EM) Ralph Portier (M) • environmental toxicology Margaret Reams (M) • environmental policy Barbara Shane (EM)

Brian F. Snyder (6A) • Renewable energy systems, climate policy, energy flow through human systems Vince Wilson (M) • genetic toxicology

## **Degree Programs**

The Department offers M.S. and Ph.D. degrees in environmental sciences plus M.S. and Ph.D. minor in environmental sciences. In order to provide students with a holistic training to meet today's environmental challenges, the graduate curriculum is organized according to three priority areas: (a) Biophysical Systems (coupled biological and physical systems); (b) Environmental Planning and Management (coupled human and natural systems); and (c) Environmental Assessment and Analysis (coupled people and technology). The M.S. program consists of thesis and professional options. Collaborative graduate programs with Southern University and LSU-Shreveport are also available.

Research activities within the department include environmental assessment and resource sustainability, environmental microbial ecology, molecular phylogenetics, water quality, air quality and air transport modeling, bioremediation, environmental management, environmental toxicology, genetic toxicology, environmental regulations, policy development, hazardous waste management, development of mobile analytical instrumentation, the environmental impact of toxic chemicals, remote sensing, geographic information science, environmental health, and environmental decision-making.

Individualized programs of study for each student are developed in consultation with and approved by the student's graduate advisory committee. The committee includes the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

#### **Environmental Sciences, M.S.**

#### (SENVS)

The degree is a thesis/professional (non-thesis) degree requiring 36 hours of graduate credits. For the thesis option, the curricular requirements include:

- 36 credit hours beyond the bachelor degree level; at least half at the 7000 level (excluding thesis hours)
- ENVS 7700 Integrated Environmental Issues (3)
- ENVS 7995 Environmental Seminar (1)
- Six hours from each of the three priority areas (18 hours)
- An additional three-hour course from a priority area of choice (three hours)
- Five hours of elective coursework, which can be additional coursework taken within or outside the department (Note: courses taken outside of the department must have the approval of the student's advisor committee)
- ENVS 8000 Thesis Research (1-12 per sem.) (6 credits required)

The student must complete a thesis and successfully defend the thesis in an oral examination. The thesis must be acceptable in subject matter and exhibit creditable literary workmanship to the satisfaction of the thesis committee and meet with the approval of the Graduate School.

The professional (non-thesis) option provides students with the requisite skills and knowledge to assume professional research and/or managerial positions within public, private, and non-profit organizations facing increasingly complex environmental challenges. The program is designed to emphasize interdisciplinary team research experience and to master skills in data analysis and oral and written communication. The curricular requirements for this option include:

- 36 credit hours beyond the bachelor degree level; at least half at the 7000 level
- ENVS 7700 Integrated Environmental Issues (3)
- ENVS 7995 Environmental Seminar (1)
- Six hours from each of the three priority areas (18 hours)
- Three hours from a priority area of choice (three hours)

- Eight hours of elective coursework, which can be additional coursework taken within or outside the department (Note: courses taken outside of the department must have the approval of the student's advisor committee)
- Three hours of research based on an internship or a team project (e.g. ENVS 7997, ENVS 7900)

During the last semester professional M.S. students must successfully complete a written comprehensive exam and deliver an oral presentation of a written research report from the internship or team project, one copy of which must be turned into the academic coordinator prior to graduation. ENVS 7997 must be scheduled for the last semester in which the student is enrolled.

#### **Environmental Sciences, Ph.D.**

#### (PENVS)

In March 2012, the Louisiana Board Regents authorized the Department of Environmental Sciences to offer the Ph.D. degree in Environmental Sciences. The Ph.D. curriculum in Environmental Sciences is designed so that students will acquire substantial knowledge in a primary area of concentration, develop breadth in the three priority areas, and conduct original research on an important environmental topic culminating in a publishable dissertation.

Students entering with a bachelor's degree are required to take a total of 60 credit hours, at least half of which are at or above the 7000 level. Of the 60 hours, nine are for dissertation research (ENVS 9000). The curricular requirements for these students include:

- ENVS 7700 Integrated Environmental Issues (3)
- ENVS 7995 Environmental Seminar (1)
- Six hours from each of the three priority areas (18 hours)
- Three hours from an additional priority area of choice (three hours)
- The remaining hours will be chosen in consultation with the student's major advisor

Students entering with a master's degree are required to take a total of 30 credit hours, at least half of which are at or above the 7000 level. Of the 30 hours, nine are for dissertation research (ENVS 9000). The curricular requirements for these students include:

- ENVS 7700 Integrated Environmental Issues (3)
- ENVS 7995 Environmental Seminar (1)
- Three hours from each of the three priority areas (nine hours)
- Three hours from a priority area of choice (three hours)
- The remaining hours will be chosen in consultation with the student's major advisor

All Ph.D. students will take a minimum of nine hours of graduate coursework to establish a minor area of study outside the department. The minor area of study will be developed in consultation with the student's advisory committee.

Students who have received an M.S. in Environmental Sciences from LSU will likely have taken the requisite ENVS courses described above. For those students, the student's advisory committee will develop an appropriate program of courses within and outside the department.

#### Department of Environmental Sciences Graduate Courses

#### Courses Required for MS and PhD Degrees

- ENVS 7700 Integrated Environmental Issues (3)
- ENVS 7995 Environmental Seminar (1)

The MS and PhD programs are organized into three priority areas:

#### Priority Area A: Biophysical Systems (Coupled Biological and Physical Systems)

- ENVS 4007 Cancer: A Family of Environmental Diseases (3)
- ENVS 4010 Applied Ecology (3)
- ENVS 4035 Aquatic Pollution (3)
- ENVS 4101 Environmental Chemistry (3)
- ENVS 4045 Air Pollution and Society (3)
- ENVS 4477 Environmental Toxicology: Introduction and Applications (3)
- ENVS 4500 Health Effects of Environmental Pollutants (3)
- ENVS 4600 Global Environmental Change: Past, Present and Future (3)
- ENVS 7110 Toxicology of Aquatic Environments (3)
- ENVS 7112 Concepts in Marine Ecotoxicology (3)
- ENVS 7623 Toxicology I (3)
- ENVS 7626 Toxicology IV: Genetic Toxicology (3)

# Priority Area B: Environmental Planning and Management (Coupled Human and Natural Systems)

- ENVS 4261 Energy and the Environment (3)
- ENVS 4262 Environmental Hazards Analysis (3)
- ENVS 4264 Regulation of Environmental Hazards (3)
- ENVS 4266 Ocean Policy (3)
- ENVS 4268 Environmental and Natural Resources Policy (3)
- ENVS 7040 Environmental Planning and Management (3)
- ENVS 7041 Environmental Policy Analysis (3)
- ENVS 7042 Environmental Conflict Resolution (3)
- ENVS 7043 Environmental Law and Regulation (3)
- ENVS 7044 Regulation of Toxic Substances (3)
- ENVS 7046 International Environmental Law (3)
- ENVS 7047 Environmental Economics and Policy (3)
- ENVS 7061 Watershed Biogeochemistry (3)
- ENVS 7950 Special Topics in Environmental Sciences (1-6)

# Priority Area C: Environmental Assessment and Analysis (People and Technology)

- ENVS 4145 Remote Sensing Fundamentals for Environmental Scientists (3)
- ENVS 4149 Design of Environmental Management Systems (3)
- ENVS 4900 Watershed Hydrology (3)
- ENVS 7010 Mathematical Modeling in Energy and Environmental Management (3)
- ENVS 7050 Spatial Modeling of Environmental Data (3)
- EXST 7003 Statistical Inference I (4) or
- EXST 7004 Experimental Statistics I (4) or
- EXST 7005 Statistical Techniques I (4)

## **Experimental Statistics (Graduate Program)**

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

The Department of Experimental Statistics is the principal source of statistical education, research, and service at LSU. This department is unique in its strong orientation toward the application of statistics. Faculty provide expert statistical support for the university community.

Faculty also routinely serve on graduate committees in other departments and collaborate on interdisciplinary research projects in addition to directing graduate students in statistics and conducting independent research programs. The department has approximately 30 master's students who interact closely with the faculty.

## Administration

D. Allen Rutherford, Interim Head	
Brian D. Marx, Graduate Advisor	
TELEPHONE	225-578-8303
FAX	225-578-8344
E-MAIL	exst@lsu.edu
WEBSITE	www.stat.lsu.edu

## Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Students must satisfy all admission requirements of the Graduate School. Application materials, obtained from the department, must be completed and returned to the Graduate School. Transcripts and three letters of recommendation must also be sent to the Graduate School. Letters should be written by individuals who have knowledge of the student's academic and professional qualifications.

Admission is based on aptitude, interest, and background as documented in application materials. Evidence of a strong aptitude comes from GRE scores and grades in previous college courses. Breadth of background, particularly in the applied sciences, is advantageous. Previous training in probability and statistics is desirable but not required.

To complete the program successfully, students need a working knowledge of multidimensional calculus and linear (matrix) algebra. Qualified students who have not had adequate training in mathematics can be admitted and allowed to schedule appropriate courses to satisfy this requirement. These background courses will not count for degree credit.

## **Financial Assistance**

Graduate assistantships are awarded competitively with the approval of the department head. Nine-month assistantships pay \$13,000 and require 20 hours of work per week. Academic qualifications and ability to carry out assistantship duties are the major considerations in awarding assistantships.

Some assistantships, particularly those funded by contracts, may require special skills or qualifications. The department will normally provide assistantship support for a maximum of two calendar years. International students must pass a test in spoken English prior to receiving a teaching assistantship.

## **Graduate Course Offering**

The department offers a two-semester sequence in statistical methods that is taken by graduate students from departments throughout the university. Specialized courses in mathematical statistics, nonparametric statistics, regression, experimental design, applied least squares, multivariate statistics, categorical data analysis, sampling, reliability and survival analysis, spatial statistics, population statistics, statistical data mining, statistical computing, Bayesian analysis, and statistical genetics are offered.

Additionally, special topics courses are offered. These courses serve the educational needs of departmental graduate students in addition to fulfilling part of the department's service mission by providing statistical training to the campus as a whole.

## Facilities

This department, located in the Martin D. Woodin Hall, is centrally located and convenient to all campus facilities. The department's computer facilities include state-of-the-art laboratories equipped with approximately 100 stations, with access to the department's servers, the campus high performance computing systems, and the Internet. These labs are used by students taking both undergraduate and graduate statistical methods courses, as well as by students taking advanced statistics courses. Moreover the labs are used for workshops, computationally intensive statistical research, and statistical data analysis for a wide variety of university research projects for which the department, faculty, staff, and students provide statistical support. In addition, the department has a computer lab reserved for graduate student statistical computing. The lab's servers provide file and printer services as well as streaming video services used in statistical instruction, including distance education.

## **Graduate Faculty**

(check current faculty listings by department here)

David C. Blouin (M) • Experimental design, mixed models
Luis A. Escobar (M) • Statistical theory, nonlinear methods, survival analysis, engineering reliability, industrial statistics
James P. Geaghan (EM) • Biological modeling, quantitative ecology, fisheries statistics
BeiBei Guo (6A) • Bayesian clinical trial design, statistical genomics
Bin Li (M) • Data mining, statistical learning
Brian D. Marx (M) • Smoothing, signal regression and chemometrics, generalized linear and additive models, illconditioned data, penalized likelihood
Kevin S. McCarter (7M) • Survival analysis, computationally intensive statistical methods, biostatistics, design and analysis of clinical trials, mathematical statistics, statistical education
Charles J. Monlezun (M) • Linear models, statistical methodology, mathematical statistics

## **Faculty Research**

Faculty members conduct research in traditional and modern areas of statistics, as well as in applications in diverse areas of agriculture and life, social, environmental, physical, and engineering sciences. Faculty also provide statistical expertise as members of interdisciplinary teams conducting research in such areas as agriculture, forestry, wildlife, fisheries, social sciences, the physical and life sciences, and clinical trials. Faculty publish in applied and theoretical statistics journals and in journals in other fields of application.

## Applied Statistics, M.Ap.St.

#### (MAPST)

The Department of Experimental Statistics offers the Master of Applied Statistics (MAPST) degree. Students can opt for a nonthesis (36 credits) or a thesis (36 credits) degree. Students who choose the thesis degree must write a thesis involving the extension of current statistical methodology or novel/extensive use of statistical methods in a real application. Students gain valuable experience while working closely with faculty and clients during the statistical consulting practicum courses. Each student may present a departmental seminar and must pass the oral and written comprehensive final examination.

Some students in the department pursue dual master's degrees or work toward the MAPST degree while pursuing a PhD in another department. Students completing the MAPST degree are prepared to serve as applied statisticians or to pursue a PhD in statistics or a related field. Employment opportunities exist for applied statisticians in business, industry, government, and in educational and research organizations.

#### Master of Applied Statistics Coursework

#### Core methods and theory courses (14 credits)

- EXST 7003 Statistical Inference I (4) or
- EXST 7004 Experimental Statistics I (4) or
- EXST 7005 Statistical Techniques I (4)
- EXST 7013 Statistical Inference II (4) or
- EXST 7014 Experimental Statistics II (4) or
- EXST 7015 Statistical Techniques II (4)
- EXST 7060 Probability and Statistics (3)
- EXST 7061 Statistical Theory (3)

#### Professional courses (four credits)

- EXST 7083 Practicum in Statistical Consulting I (2)
- EXST 7084 Practicum in Statistical Consulting II (2)

#### Non-thesis or Thesis Option

In addition, students must select a thesis or non-thesis option. Each option's additional requirements are given below.

#### Non-thesis option (18 credits)

• Advanced statistical courses (9);

- o Three advanced EXST courses approved by the student's graduate advisory committee;
- minor area of concentration (9)
  - o Three graduate courses approved by the student's graduate advisory committee

#### Thesis option (18 credits)

- Advanced statistical courses (12)
- Four advanced courses with at least nine hours in EXST, approved by the student's graduate advisory committee
- EXST 8000 Thesis Research (1-12 per sem.)

## **Finance (Graduate Program)**

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

The Department of Finance has a strong commitment to excellence in research and teaching and graduate education is an important part of this commitment.

The objective of the Master of Science in Finance (MS) curriculum is to provide qualified students a theoretical and analytical background in Finance; no previous Finance coursework is necessary. The MS program gives students the analytical and communicative skills necessary for effective financial decision-making. The curriculum is flexible and can accommodate individual interests and professional objectives. The program is narrower in scope than that of the MBA and is intended as an alternative to the MBA rather than a bridge to the PhD. The Department of Finance also offers a joint JD/MS program in partnership with the LSU Law Center, similar to the dual degree JD/MBA program. However, the objective of the joint JD/MS program is to provide students with a highly concentrated background in finance and Louisiana state law; it is an intensive study of analytical financial decision making and interpretation of law code.

The PhD program in business administration with a concentration in finance is research-oriented and designed to prepare qualified students for academic professions. The program includes an intensive study of the theory and empirics of finance through seminars, independent study, and individual work with faculty members. To be successful in the program, a student must develop a sense of scientific curiosity and be committed to the highest level of academic achievement.

## Administration

Rajesh Narayanan, Chair	
Rajesh Narayanan, Graduate Advisor	
TELEPHONE	225-578-6291
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E-MAIL	finance@lsu.edu
WEBSITE	lsu.edu/business/finance

## Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Applications for admission are received and evaluated by the department on a rolling basis. Applicants must adhere to the application deadlines established by the Graduate School.

Admission is based on prior academic performance, test scores, and other indicators of a high likelihood of success in the program. The MSF program is designed for all students with an interest in Finance; previous Finance or Business courses while helpful are not necessary. Applicants to the MSF program must submit satisfactory credentials from previous study, Graduate Management Admission Test (GMAT) scores, resumé, and letters of recommendation. Applicants for the PhD program must submit satisfactory credentials from previous study, GMAT (preferred) or GRE scores, letters of recommendation, and a departmental assistantship application. International students whose native language is not English must also submit an acceptable TOEFL, IELTS, or PTE score.

Most students begin the PhD program in the fall. Students may enter the MS program in either the fall or spring.

## **Financial Assistance**

Financial assistance is available to some students. Support may be available through the student's home department or other units in the form of research or teaching assistantships. A student should contact his or her home department for more information on available assistantship positions. To ensure consideration for financial aid, all application materials should be submitted in accordance with deadlines established by the LSU Graduate School.

## **Graduate Faculty**

(check current faculty listings by department here)

Don M. Chance (M) • Derivatives, risk management
Joseph Mason (M) • Financial markets and institutions, banking
Haitao Mo (6A) • Asset pricing
Rajesh Narayanan (M) • Corporate finance, financial markets and institutions, banking
James C. Norlund • Corporate finance
R. Kelley Pace (M) • Real estate applications of spatial statistics, automated appraisal
Gary C. Sanger (M) • Financial theory, investments and regulation
V. Carlos Slawson, Jr. (M) • Real estate, mortgage pricing, derivative securities
Wei-Ling Song (M) • Financial markets and institutions, corporate governance
Clifford P. Stephens (3F) • Dividend policy, managerial incentives
Miaomiao Yu • Corporate finance
Jumbo Wang (6A) • Asset Pricing and Mutual Funds

#### **Business Administration, PhD (Finance Concentration)**

# **Doctor of Philosophy (PhD) in Business Administration with a concentration in Finance (PBADM)(GFIN)**

The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional

members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

The degree is a thesis degree requiring a thesis. Fifty-four hours of credit at the graduate level must be earned. The curricular requirements include:

- At least 54 hours at the 7000 level or above
- A primary area consisting of a minimum of 18 hours of earned credit in Finance
- A minor area consisting of a minimum of 12 hours of Economics

The student must pass a general exam, which may be written, oral, or both, and successfully defend his/her dissertation.

Please refer to two websites for (1) additional details about the program

(https://www.lsu.edu/business/finance/academics/phd/index.php) and (2) the typical coursework completed during the four year program (https://www.lsu.edu/business/finance/academics/phd/curriculum.php).

#### **Dual Degree: JD/MS in Finance**

#### Master of Science (MS) in Finance (SFIN) with Juris Doctorate (JD)

Click here to view the Master of Science (MS) in Finance (SFIN) with Juris Doctorate (JD).

The JD/MS is a specialized course of study in which a student actively pursues both a Master of Science (MS) in Finance (SFIN) and a Juris Doctorate (JD) with the LSU Law Center. Admission into the program is contingent upon acceptance into both the regular MS program and the LSU Law Center. Curricular requirements for both graduate degrees are the same as their respective individual programs. The nature of the JD/MS program allows students to share several hours of coursework between the two programs.

Students interested are encouraged to visit the individual program site.

#### • JD/DCL-MS in Finance

LSU and the Paul M. Hebert Law Center offer several dual degree programs, allowing a student to earn both the JD/DCL and a master's degree.

Students enrolling in the dual degree programs must be admitted separately to the LSU Graduate School and the Law Center. Students should consult with the admissions office of each institution prior to enrollment.

Each program has specific requirements, which can be found by visiting the website listed above.

Students successfully completing the program listed above will receive two degrees, a JD/DCL awarded by LSU's Hebert Law Center and a master's degree awarded by LSU.

Students wishing to pursue dual degrees must complete and submit the "Request for Dual Degree" form.

#### Finance, M.S.

#### (SFIN)

The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

The degree is a non-thesis degree. A thesis option is available. Thirty-six hours of credit at the graduate level must be earned. The curricular requirements include:

- At least 18 hours at the 7000 level or above
- At least 18 hours of graduate-level finance courses
- A minimum core requirement of nine credit hours:
  - FIN 7826 Investment Analysis and Portfolio Theory (3)
  - FIN 7633 Financial Markets (3)
  - FIN 7719 Advanced Financial Management (3)

## Foreign Languages & Literatures (Graduate Program)

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

Graduate study in Spanish has a long and distinguished tradition at LSU. The MA in Hispanic Studies, redesigned in 2004, offers the choice of a specialization in literary, linguistics, or cultural studies. Each specialization is offered with the thesis and non-thesis option and requires six hours of coursework in each of the other two areas. The program is supported by a faculty that represents diverse areas of the Hispanic world and that is particularly strong in interdisciplinary approaches to the study of language, literature, and culture. It also allows students the opportunity to take approved courses related to the Hispanic world taught by affiliated faculty in other departments.

Students pursuing the thesis option must complete a minimum of 30 credit hours in coursework and 6 credit hours in thesis research: at least 18 credit hours of coursework must be at the 7000-level.

Students pursuing the non-thesis (or comprehensive exam) option must complete a minimum of 36 credit hours in coursework: at least 21 credit hours of coursework must be at the 7000-level.

Specific course requirements:

SPAN 4400 Introduction to Hispanic Cultural Studies (required for all students)

SPAN 4603 Applied Spanish Linguistics (required for all Teaching Assistants)

SPAN 7985 Research in Hispanic Linguistics (required for specialization in linguistics)

SPAN 7990 Special Topics in Hispanic Criticism (required for specialization in literature or cultural studies)

## Administration

John Pizer, Chair

Jeremy King, Associate Chair, Director of Hispanic Studies, Spanish Section Head

Carmela Mattza, Graduate Advisor

TELEPHONE	225-578-6638
FAX	225-578-5074

WEBSITE

http://www.lsu.edu/hss/fll/spanish/graduate/generalinfo.php

## Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Applicants are expected to have a significant undergraduate background in Spanish, an above-average record on all undergraduate coursework, acceptable GRE scores, and strongly supportive recommendations from at least three faculty members familiar with their academic work.

## **Financial Assistance**

Information on graduate assistantships and other forms of financial assistance is available from the graduate advisor.

## **Graduate Faculty**

(check current faculty listings by department here)

#### Graduate Faculty who teach in Hispanic Studies

Elena Castro (M) • Twentieth and twenty-first century Spanish Peninsular Poetry and Poetics, gender and sexuality, women studies. Twentieth and twenty-first century Spanish Peninsular Literatures, Cultural Studies and Interdisciplinary approaches to Hispanic Literatures. Contemporary Latin American Poetry and Poetics

Alejandro Cortazar (3A) • Mexican literature and culture; 19th century Latin American literature; gender, identity, and nationstate formation in 20th century Latin America

Dorian Dorado (6A) • Second Language Acquisition and Pedagogy, Language Variation

Christian Fernández-Palacios (M) • Colonial Latin American studies, Latin American narratives, literary theory, postcolonial studies, transcontinental studies

Dorota Heneghan (M) • Nineteenth- and Twentieth-Century Spanish Literature and Culture, Interdisciplinary Approaches to Modern Spanish Culture, Comparative Literature, Women and Gender Studies, Transatlantic Studies, Art History

Jeremy King (M) • Hispanic linguistics, pragmatics, historical Spanish, applied linguistics, second language

Laura Martins (7M) • Southern Cone literature and film, Transatlantic studies, Luis Buñuel's films, art and violence, film theory, literary theory, genre studies, photography

Carmela Mattza (6A) • Visual Arts, History of the Emotions and Literature in Early Modern Iberia. Translation, Reception and Influence of the Classics in Late Medieval and Early Modern Iberia. Presence and influence of Late Medieval Hagiography and Religious Iconography in the Court of the Spanish Hapsburg. Transatlantic Perspectives to the Use of Ekphrasis and Mythography in Cervantes's Works and the Spanish Golden Age Comedia

Andrea Morris (M) • 20th-21st century literature and culture of the Hispanic Caribbean, Afro-Hispanic literature, Cuban film, Migration and Caribbean Diaspora

Rafael Orozco (M) • Spanish in the United States, Latin American Spanish, Sociolinguistics, historical linguistics, bilingualism, Colombian Spanish

# **Graduate Faculty in other departments who teach courses in the Hispanic Studies Graduate Program:**

Stephen Andes (6A) • (Department of History) Latin America, esp. Mexico; 19th and 20th century Catholic social and political movements; Vatican policy; Modern Christianity; Christian Democratic parties; Religion and Revolution in Latin America; Liberation Theology; Religion and Narco-violence in Mexico

Mary Jill Brody (M) • (Department of Geography and Anthropology) Anthropological linguistics, Mayan linguistics, language and culture, discourse analysis

David Chicoine (M) • (Department of Geography and Anthropology) Andean archaeology, Coastal Peru, early urbanism, material culture

Paul E. Hoffman (EM) • (Department of History) Colonial Latin America, borderlands, Spain

Kent Mathewson (M) • (Department of Geography and Anthropology) Latin American cultural and historical geography, geography and environmental concerns in Latin America, indigenous peoples and Latin American geography

Heather McKillop (M) • (Department of Geography and Anthropology) Pre-Columbian archaeology, Mesoamerican archaeology, trade methods

Solimar Otero (7M) • (Department of English) gender, sexuality, Afro-Caribbean spirituality, and Yoruba traditional religion in folklore, literature and ethnography

Irina Shport (6A) • (Department of English) speech perception and production, second language acquisition and pedagogy, individual differences in language learning, phonetics and phonology, prosody

Elena FitzPatrick Sifford (6A) • (School of Art) Renaissance and Baroque art, Christian devotional sculpture in colonial Latin America

Andrew Sluyter (M) • (Department of Geography and Anthropology) Landscapes of colonialism, Latin America, development and environmental policy

# **Professorial faculty who teach in Foreign Languages and Literatures**

Emily Batinsky, Latin Elegy and Epic, Seneca's Prose Works

Paolo Chirumbolo (M) • Modern and Contemporary Italian Literature, Cinema Studies, Literary Theory, Cultural Studies Kristopher Fletcher (M) • Augustan Poetry, Greek and Roman Epic, Hellenistic Poetry, Mythology and Mythography Gundela Hachmann (6A) • Intermediality and Contemporary German Literature.

Touria Kannous (M) • Literature and Film from the Maghreb, Women's Movements in the Middle East and North Africa, Postcolonial Studies, Cultural Ctudies and Black Diaspora Studies

Qiancheng Li (M) • Premodern Chinese Literature, Comparative Literature

Wilfred E. Major (M) • Greek and Roman Comedy, Greek Pedagogy, Greek Rhetorical Theory

John D. Pizer (M) • 18th-21st Century German Literature and Thought, Comparative Literature, Theory and Practice of World Literature

Mark S. Wagner (M) • Classical Arabic Literature, Arabic Vernacular Literature, Islamic Law, Muslim-Jewish Relations Gang Zhou (M) • Modern Chinese Literature and Culture, Comparative Literature

#### **RECENT HISPANIC STUDIES GRADUATE FACULTY PUBLICATIONS**

Elena Castro, Poesía lesbiana queer. Cuerpos y sujetos inadecuados. Barcelona: Editorial Icaria, 2014.

Alejandro Cortazar, "El antihéroe de 'necio quijotismo' en Tomochic (1893) de Heriberto Frías" Perfiles del heroísmo en la literatura hispánica de entresiglos (XIX-XX). Luis Álvarez Castro y Denise DuPont, Eds. Valladolid: Editorial Verdelís, 2013, 107-119.

Dorian Dorado, Variation on copula choice: A comparative analysis on advanced second language learners from two speech communities Doctoral dissertation, University of Florida, 2011.

Christian Fernández, Co-edited with Sara Castro-Klarén. Inca Garcilaso & Contemporary World-Making. Pittsburgh: University of Pittsburgh Press, 2016.

Dorota Heneghan, Striking Their Modern Pose: Fashion, Gender, and Modernity in Galdós, Pardo Bazán, and Picón. West Lafayette, IN: Purdue University Press, 2015.

Jeremy King, Language Variation and Contact-Induced Change: Spanish across Space and Time. Amsterdam and Philadelphia: John Benjamins, 2018.

Laura Martins, "Per-verse Latin American Women Poets". The Cambridge History of Latin American Women's Literature. New York: Cambridge University Press, 2015, 504-525.

Carmela Mattza, Hacia La vida es sueño como speculum reginae: Isabel de Borbón en la corte de Felipe IV. Madrid: Verbum Editorial, 2017.

Andrea Morris, "Cuban Post-soviet Return and Race in Films by Leonardo Guevara Navarro: Sustaining Transnational Community and Belonging." Afro-Hispanic Review 36.1 (2017).

Rafael Orozco, Spanish in Colombia and New York City: Language Contact Meets Dialectal Convergence. Amsterdam and Philadelphia: John Benjamins, 2018.

# FOREIGN LANGUAGES AND LITERATURES PROFESSORIAL FACULTY PUBLICATIONS

Emily Batinski, "In Cynthiam / Pro Cynthia (Propertius 2,32)". Latomus. 62, no. 3 (2003): 616-626.

Paolo Chirumbolo, Tra coscienza e autocoscienza saggi sulla narrativa degli anni Sessanta : Volponi, Calvino, Sanguineti. Soveria Mannelli: Rubbettino, 2009.

Kristopher Fletcher, Finding Italy: Travel, Nation, and Colonization in Vergil's Aeneid. Ann Arbor: The University of Michigan Press, 2014.

Gundela Hachmann, Zeit und Technoimagination. Eine neue Einbildungskraft in Romanen des 21. Jahrhundert. Wuerzburg, Germany: Koenigshausen und Neumann, 2015.

Touria Khannous, "Islam, Gender, and Identity in Leila Abouzeid's The Last Chapter: A Postcolonial Critique." College Literature 37, no. 1 (2010): 174-189.

Quancheng Li, Fictions of Enlightenment: Journey to the West, Tower of Myriad Mirrors, and Dream of the Red Chamber. Honolulu: University of Hawaii Press, 2004

Wilfred Major, The Court of Comedy: Aristophanes, Rhetoric and Democracy in Fifth-Century Athens. Columbus: The Ohio State University Press, 2013.

John Pizer, Imagining the Age of Goethe in German Literature, 1970-2010. Rochester, NY: Camden House, 2011. Mark S. Wagner, Like Joseph in Beauty: Yemeni Vernacular Poetry and Arab-Jewish Symbiosis. Leiden: Brill, 2009. Richard Warga, "Three Fragments from the Berkeley Collection." Illinois Classical Studies 27/28 (2002): 109-13. Gang Zhou, Placing the Modern Chinese Vernacular in Transnational Literature. New York: Palgrave Macmillan, 2011.

#### Hispanic Studies, M.A.

#### (AHISP)

The MA degree requires 36 hours of graduate coursework. If a student chooses the thesis option, 30 hours of coursework are required.

#### French Studies (Graduate Program)

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

The LSU French program, comprising the Department of French Studies & the Center for French and Francophone Studies, has gained international recognition of its position at the forefront of the North American study of French and Francophone literatures and cultures. The program is recognized by the Cultural Services Office of the French ambassador to the United States as a *centre d'excellence*, an honor given to only 20 university French programs in the United States. Our faculty, whose interests and expertise cover a broad spectrum of fields in French and global Francophone language, literature, and culture, are recognized as among the nation's most outstanding and productive researchers in the field, according to the most recent National Research Council *Survey of US Doctoral Programs*.

The program's work reflects the historical importance of Francophone languages and cultures for Louisiana, as well as the leadership provided by French studies in the European intellectual tradition. Located in Baton Rouge, the capital of Louisiana, the program finds itself at the crossroads of the Francophone world, tied to Francophone Canada by Cajun history, to France, Francophone Africa, and the Caribbean by Creole history.

#### Administration

Adelaide M. Russo, Chair

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## Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Applications for admission are received and evaluated by the department on a continuing basis. Applicants must adhere to the application deadlines established by the Graduate School. Students seeking admission must submit satisfactory credentials from previous study, acceptable GRE scores, three letters of recommendation, and a writing sample. International students whose native language is not English must also submit an acceptable TOEFL, IELTS, or PTE score.

## **Financial Assistance**

Financial assistance is available to some students. Support may be available in the form of research or teaching assistantships. To ensure consideration for financial aid, all application materials should be submitted in accordance with deadlines established by the LSU Graduate School.

## **Graduate Faculty**

(check current faculty listings by department here)

Frank Anselmo (3A) • 19th and 20th century literature and culture; World Wars I and II
Kevin Bongiorni (3A) • 19th and 20th century French and Italian language and literature; film and culture; literary theory and criticism
Sylvie Dubois (M) • Sociolinguistics; archival research; bilingualism; Cajun French and varieties of English spoken in the U.S.; minority languages; linguistics policies

Katharine Ann Jensen (M) • 17th and 18th century French literature; women's writing; feminist theory; mother-daughter relations; epistolary writing

Jeffrey M. Leichman (7M) • 18th century literature and intellectual history; ancien régime drama and theatrical theory; esthetics and politics in the French Enlightenment; performance theory; theatre and cinema.

Alexandre Leupin (M) • Medieval literature; literary criticism and theory; psychoanalysis; epistemology

Nkashama P. Ngandu (M) • Semantics of metaphor; Francophone literature; narrativity; gestural semiotics

Rosemary Peters  $(M) \cdot 19$ th century literature and cultural studies; liturgy and theology; monastic traditions in France and Italy; translation; law and literature

John Protevi (M) • Contemporary French philosophy (Foucault, Deleuze); the biological, cognitive, and affective sciences Francois Raffoul (M) • French Post-Structuralism

Adelaide Russo (M)  $\cdot$  19th and 20th century poetry; literary theory; hybrid discourses; Belgian Francophone literature and culture Gregory Stone (M)  $\cdot$  Medieval and Renaissance literature; literary theory and criticism

Nathaniel Wing (EM) • 19th century French literature; critical theory; gender theory

Jack Yeager (M) • Southeast Asian Francophone literature; Francophone women's writing; gender studies

#### French Studies, M.A.

#### (AFREN)

The MA goal is to ensure written and oral competence and breadth of coverage in French and Francophone literature and culture.

#### A. MA distribution requirements

(15 credit hours out of the 36 total credit hours required for the degree). For their 21 elective credit hours, students should follow a curriculum designed to meet their particular needs and to suit their special interests. This curriculum will be developed by the student in consultation with the director of graduate studies and the student's major professor and/or MA examining committee.

Students shall take at least one course from each of the following five areas:

#### 1. Francophone Studies

- FREN 7100 Studies in Sub Saharan Francophone Literature and Culture (3)
- FREN 7102 Studies in North African Francophone Literature and Culture (3)
- FREN 7120 Studies in Francophone Asian Literature and Culture (3)
- FREN 7140 Studies in Caribbean Francophone Literature and Culture (3)
- FREN 7170 Studies in Belgian Francophone Literature and Culture (3)
- FREN 7960 Special Topics in French Literature (3) (when topic is Francophone Studies)
- FREN 7970 Seminar in French Literature (3) (when topic is Francophone Studies)
- FREN 4060 French Literature of Quebec (3)
- FREN 4070 Literature of Africa and the Caribbean (3)
- FREN 4080 Special Topics in French/Francophone Cultures and Civilizations (3)
- FREN 4090 French and Francophone Women Writers (3)
- FREN 4100 Special Topics in French Language and Literature (3) (when topic is Francophone Studies)

#### 2. Medieval and Renaissance

- FREN 7300 Old Provençal (3)
- FREN 7960 Special Topics in French Literature (3) (when topic is Medieval and/or Renaissance)
- FREN 7970 Seminar in French Literature (3) (when topic is Medieval and/or Renaissance)
- FREN 4000 Old French and Medieval Literature (3)
- FREN 4010 French Literature of the 16th Century (3)

#### 3. 17th and 18th Century

- FREN 7022 Studies in 17th Century French Literature (3)
- FREN 7032 Studies in 18th Century French Literature (3)
- FREN 7960 Special Topics in French Literature (3) (when topic is 17<sup>th</sup> and/or 18<sup>th</sup> Century)
- FREN 7970 Seminar in French Literature (3) (when topic is 17<sup>th</sup> and/or 18<sup>th</sup> Century)
- FREN 4030 French Literature of the 18th Century (3)
- FREN 4100 Special Topics in French Language and Literature (3) (when topic is 17<sup>th</sup> and/or 18<sup>th</sup> Century)

#### 4. 19th and 20th Century

- FREN 7042 Studies in 19th Century French Literature (3)
- FREN 7051 The 20th Century Novel (3)
- FREN 7052 Studies in 20th Century French Literature (3)
- FREN 7960 Special Topics in French Literature (3) (when topic is 19<sup>th</sup> and/or 20<sup>th</sup> Century)
- FREN 7970 Seminar in French Literature (3) (when topic is 19th and/or 20th Century)
- FREN 4040 French Literature of the 19th Century (3)
- FREN 4050 French Literature of the 20th Century (3)
- FREN 4100 Special Topics in French Language and Literature (3) (when topic is 19<sup>th</sup> and/or 20<sup>th</sup> Century)

#### 5. Literary Theory and Criticism

- FREN 7410 Studies in Contemporary French Theory (3)
- CPLT 7020 History and Theory of Criticism (3)
- CPLT 7120 Topics in Theory of Criticism (3)
- CPLT 7140 Topics in the Interdisciplinary Study of Literature (3)

#### B. MA exams format

An essential component of the MA exam is the reading list, which will be the basis of the written exam (in French). Students will answer one question about any author on the reading list. The reading list will comprise five essential books for each of the five core areas plus four essential secondary works for each of the five core areas (for a total of 45 book and work). A standard ("default") list, drawn up by professors who specialize in the core areas, will be provided by the department. Students may choose to use the standard list or, in consultation with their major professor and/or MA examining committee, to substitute works of their choice for any or all of the works on the standard list.

The graduate student will have two options to choose from for the Master of Arts Examination:

- Non-thesis option: 36 regular course credit hours are required (no more than half at the 4000-level) required. The student will complete two 2500-word written essay about any author of the reading list. The question will be determined by the student's major professor in consultation with the student's MA Examining Committee.
  - The student has four days to research and write each essay (eight days total).
  - Oral exam: One week after submitting the 2500-word essay to the M.A. Examining Committee, the student will meet with the committee to discuss the written exam. During the oral exam, the committee may ask questions about any authors or works included on the student's reading list.
- 2. Thesis option: Thirty regular course credit hours (no more than half at the 4000-level) plus six hours of FREN 8000 Thesis Research (1-12 per sem.) and a 50-75 page (including bibliography) master's thesis and an oral defense of the master's thesis are required. The thesis may be written in French or English. Oral exam:
  - a. Written Exam: a 2500-word essay about any author on the reading list. The question will be determined by the student's major professor in consultation with the student's M.A. Examining Committee. The student will have 4 days to research and write the essay.
  - b. Oral Exam: one week after submitting the 2500-word essay to the M.A. Examining Committee, the student will meet with the committee to discuss the written exam. During the oral exam, the committee may ask questions about any authors or works included on the student's reading list.

#### French Studies, Ph.D.

(PFREN)

## PHD IN FRENCH LITERATURE

The PhD goal is to write an original contribution to existing scholarship on any given topic in French or Francophone literature. At this stage the students should be oriented towards both breadth and specialization.

PhD students will be required to complete 27 hours of regular coursework (beyond the MA) at the 7000 level. At the discretion of the director of graduate studies, students entering the PhD program who hold an MA from another program may be required to take the MA exam.

A. PhD distribution requirements: Students must take one 7000 level course from *each* of five core areas listed above (see section I.A, "MA distribution requirements"). Courses in the five core areas that were taken at the 7000 level for fulfillment of the MA degree in our program *will* count toward the fulfillment of PhD distribution requirements but will *not* count toward fulfillment of the 27 hours of PhD coursework.

Breadth of coverage is a requirement. The departmental-level academic course plan, designed by the student with his or her major professor, must be submitted to the director of graduate studies before being submitted to the Graduate School, so that breadth of coverage is assured.

#### B. PhD General Exam

- The PhD General exam will include:
  - 1. *Dissertation Proposal:* 30 pages (7500 words) with a bibliography, a chapter outline, and a projected timeline for completion.
  - 2. One written exam essay (15 pages; 3,750 words or more) on a general problem related to the dissertation proposal or a general theoretical or methodological problem arising from the dissertation topic. The formulation of the exam question will be determined by the student's major professor in consultation with the student's examining committee. The student will be given one week to write the exam essay.

- Oral defense of the written exam essay and the dissertation proposal, preceded by the candidate's short
  presentation of the dissertation project.
  Copies of the dissertation proposal and completed written exam essay should be distributed to all examining
- committee members at least two weeks prior to the scheduled general exam date. C. PhD Final exam (Dissertation Defense)

There will be an oral defense of the completed dissertation. The defense will commence with a brief presentation in which the candidate summarizes his or her achievement and its significance within the candidate's field of study. The dissertation should make an original contribution to scholarship in the field.

The committee should be in possession of a finished copy of the dissertation at least two weeks prior to the scheduled defense date.

MINOR FIELD: If they wish, students may elect, in consultation with the DGS, a minor field. The minor may be defined within a specific department or discipline other than French, such as Spanish, history, art, English, or drama, or it may be an interdepartmental, interdisciplinary field such as women's studies or literary theory. The department(s) or interdisciplinary program will define the requirements of the minor field. If there is a minor, the student's examining committee for the PhD must include a faculty member from the minor field, and the advisory committee should include a member from the minor field as well. The student must take at least one 7000-level course in the minor.

LANGUAGE REQUIREMENT: Students working toward the PhD must, prior to the general exams, demonstrate reading proficiency in one foreign language other than French. Proficiency may be established by satisfactory performance on the ETS (Princeton) reading exam, by completion of appropriate coursework in the language(s), or by satisfactory performance on a departmental reading exam.

DOCTORAL COMMITTEES: Doctoral committees must include at least two full members of the French Studies Graduate Faculty. The Dean of the Graduate School will appoint an outside member to serve on all general and final exam committees for the PhD The outside members represent the Dean and the Graduate Faculty and are full voting members of the committee, with all rights and responsibilities of other committee members. In the French department, committee chairs are responsible for providing copies of written exams and dissertations at least two weeks in advance of examinations to all committee members, including outside members.

REQUIREMENTS TO MAINTAIN CANDIDATE STATUS: The candidate must enroll in FREN 9000 Dissertation Research (1-12 per sem.) during each semester of enrollment as a degree candidate after completion of the general exam.

TIME LIMITS: The Graduate School limits the period for completion of the PhD to seven (7) years after classification as a doctoral student. Reconsideration of a student for the PhD program after this period has passed will be considered only in exceptional circumstances and must be initiated by written petition to the graduate faculty of the Department of French Studies who will evaluate the petitioner's record and make a decision regarding exceptions to the seven year time limit.

## **Graduate Minor in French Studies**

Doctoral students in other departments wishing to obtain a graduate minor in French Studies are required to take 9 hours of graduate coursework in the Department of French Studies at the 4000- and 7000-levels. At least 6 of those 9 hours must be at the 7000-level.

#### Language & Society PhD track

#### **Required Courses**

In addition to the Proseminar, PhD students in LS must take all of the following courses, or receive transfer credit for analogous courses.

• FREN 4014 Introduction to French Linguistics (3)

#### **Research Courses:**

PhD students in LS must take three research courses (nine credits) from the following list, or receive transfer credit for analogous courses. The intent of this research section is to determine a student's skill level in applying research methodologies to his/ her area of concentration.

#### **Quantitative Research**

- ELRC 4006 Introduction to Applied Statistics in Educational Research (3)
- SOCL 7201 Fundamental Statistics in Sociology (3)
- PSYC 7117 Methodology and Research Design (3)

#### **Qualitative Research**

- ANTH 4090 Ethnographic Methodology (3)
- ELRC 7243 Qualitative Methods in Educational Research (4)
- SOCL 7211 Seminar: Methods of Social Investigation (3)

#### **Optional Courses:**

PhD students in LS must take eight optional courses (24 credits) from the two areas of concentration below, or receive transfer credit for analogous courses. FREN 7915, FREN 7962, FREN 7980, and FREN 4100 can only be taken once.

#### Language

- FREN 4015 Advanced French Phonetics (3)
- FREN 7300 Old Provençal (3)
- FREN 7915 Independent Study (1-3) (three hours maximum for M.A, nine hours maximum PhD)
- FREN 4100 Special Topics in French Language and Literature (3)
- FREN 7962 Special Topics in French Linguistics (3)
- FREN 7980 Seminar in French Linguistics (3)

#### Society

- FREN 4001 History of the French Language (3)
- FREN 7915 Independent Study (1-3) (3 max for M.A, 9 max PhD)
- FREN 4100 Special Topics in French Language and Literature (3)
- FREN 7962 Special Topics in French Linguistics (3)
- FREN 7980 Seminar in French Linguistics (3)

#### **Outside Courses:**

PhD students in LS must take four courses (12 hours) outside the Department as a minor area, or receive transfer credit for analogous courses.

- ANTH 4060 Language and Culture (3)
- ANTH 7060 Conversation and Discourse (3)
- ANTH 7909 Selected Topics in Anthropology (3)
- COMD 3150 Phonetics (3)
- COMD 4153 Acoustics of Speech and Hearing (4)
- COMD 7750 Special Topics in Linguistics (3)
- ENGL 4310 Studies in Language (3) (Sec. 1) Pidgins & Creoles
- PSYC 4033 Psychology of Memory and Forgetting (3)
- PSYC 4008 History of Modern Psychology (3)
- SPAN 4005 Structure of the Spanish Language (3)
- SPAN 7984 Spanish in the United States (3)

#### General Examination:

For PhD students in the LS track, the format of the exams is up to the doctoral exam committee, and tends to vary somewhat with the field of study. The exams might test broad knowledge of a subject. In this case, the committee will submit a written question (or questions) to the student who will answer the question(s) in a time period judged appropriate by the committee (sit-in or take-home questions). The examination might focus more narrowly on material relevant to the student's upcoming dissertation proposal (see next section). The exams must be completed by the end of the fifth semester of enrollment in the PhD program. Normally, this would be the end of the fall semester of the third year. At that time, a full advisory committee is established.

The student, in consultation with her/his permanent major professor (advisor), expands the doctoral committee to include: four members of the LSU Graduate Faculty.

Of these four members of the doctoral committee, two must be from the Department of French Studies and two must be full members of the LSU Graduate Faculty (with one of these last two must be a full member of the Department of French Studies).

A scheduled exam cannot be deferred for more than one semester after the time at which it was originally scheduled.

*Evaluation procedures for general examinations in all tracks:* An examining committee is made up of the student advisor, plus three other faculty members appointed by the department chair in consultation with student and DGS, and is normally finalized by May 1 of the year preceding the examination. (The Graduate School provides a GS representative for the general examination.) Students are urged to consult with committee members before May 15 to form a plan of study for the summer preceding the examinations. The committee recommends whether or not the student should continue with PhD study (that is, should be advanced to "candidacy"), should be put on probation, or should be dismissed from the program.

Copies of the examination and the committee report are made available to the graduate studies committee, which meets within two weeks of filing of last committee report for the semester (by Dec 15 at the latest).

If the examination committee recommends dismissal from the program, the graduate studies committee must ratify this decision.

If the recommendation is "fail with retake," only one retake of no more than two separate examinations is allowed (no more than one area in the major field is allowed to be retaken). Retakes must be finished by March 15 of the following semester. The examining committee writes a report on the retake and includes it in a separate report on the whole of the examination. The reports are due to the chair within two weeks of the end of the exam (April 1), and a special meeting of the graduate studies committee will also be held to ratify the committee's recommendation on the retake and on the entire examination. The graduate studies committee may at this time allow the student to continue with PhD study or may recommend dismissal.

### Language & Society Dissertation Prospectus

At or before the end of the sixth semester of enrollment in the PhD program, the student must submit a substantial (approximately 30 page) proposal of the dissertation. The dissertation proposal should be sufficiently detailed and clear to serve as a blueprint for the study that will follow. The proposal should contain the following elements, although some major professors may require different emphases:

Purpose and significance of the study Formulation of the problems to be addressed Framework within which the problems will be addressed Compact review of the relevant literature Methodology and Data Data collection procedures Data analysis procedures Preliminary or prospective results if available Reference section or bibliography

This proposal must be supervised and approved by the major advisor of the dissertation, and approved by members of the student's dissertation committee. As stated above, the proposal may be used in the general examination.

## Geography & Anthropology (Graduate Program)

For information regarding the UNDERGRADUATE PROGRAM, click here.

## **Program Overview**

This department offers a variety of research and instructional programs leading to the MA in Anthropology, the MS in Geography, PhD Anthropology, and PhD in Geography. Graduate students may specialize in human geography, physical geography, mapping sciences, archaeology, biological anthropology, linguistics, cultural anthropology, or forensic anthropology. Regional foci include: Latin America, American South, East and Southeast Asia, and Africa. Graduate students often include courses in both Geography and Anthropology in their program of study. For example, archaeologists often include GIS and remote sensing. Human geographers often include courses in cultural anthropology. Graduate students may apply for Departmental awards to assist with travel and other research, notably the Robert C. West, R. J. Russell, and Materials Awards (see <a href="https://www.ga.lsu">www.ga.lsu</a>). Students are encouraged to apply for external grants and there is an emphasis on field research.

Human geography includes cultural geography (cultural ecology, landscape, diffusion); economic geography (capitalist development, peasant response to market forces, agrarian innovation and economic growth, industrial impacts on society and environment); historical geography (ecological and spatial processes, innovation diffusion, settlement expansion, residential segregation, industrial restructuring, regional development); regional geography and urban geography (urban structure and city systems, state and corporate policy, rural-urban migration, class formation, gender and ethnic relations).

Physical geography offers opportunities for study in alluvial, coastal, and quaternary geomorphology (human-induced changes in river systems, quaternary landform evolution, coastal dune dynamics and management, coastal sediment transport, beach/nearshore sediment morphodynamics, coastal land loss); and climatology (synoptic climatology, hydroclimatology, regional impacts of global warming, water balance analyses, the role of climate in flood variability).

Mapping science encompasses traditional and contemporary mapping technologies, including cartography, computer cartography, aerial photography, remote sensing, spatial analysis, and GIS. Spatial interpolation, scale, the modifiable area unit problem, surface and line measurement using fractal algorithms, spatial autocorrelation, comparative assessments of remote sensing imagery, GIS applications in coastal Louisiana, cartographic presentation and spatial data handling, and modeling the spatial distributions of disease, population, and land use are addressed.

Anthropology follows in the foosteps of the North American four-field tradition. Archaeology offers opportunities for field and lab research in the archaeology of theAndes, Mesoamerica, and Southeastern US. An archaeological field school is offered most summers. Research focus on coastal adaptations in the Americas include spectacular preservation at coastal sites in Peru, underwater Maya sites in Belize, and shell rings in the Southeastern US. Areas include the rise of complex societies, human-environmental interactions, climate change and sea-level rise, political and subsistence economies, architecture, and landscapes. GIS and remote sensing applications, 3D Digital Imaging and 3D printing, lab analyses (shell, loss-on ignition, waterlogged wood) and interdisciplinary collaborations are common.

Cultural anthropology includes the study of festivals and parades, the African Diaspora, ethnomusicology, the environment, technology, applied approaches, tropical forest and biodiversity. Linguistic anthropology includes the complex interaction between culture and language, notably discourse analysis, conversation, and language and society. Geographic areas of focus include the US Southeast, Caribbean, Latin America, and Africa.

Biological anthropology includes paleoanthropology, skeletal biology, and modern human variation, with research in Africa and museum collections. Forensic anthropology includes applications of knowledge from skeletal biology, facial reconstruction, in conjunction with the FACES lab and forensic anthropology faculty.

## Administration

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## Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

The department encourages the application of students who can bring another discipline to bear on geographical and anthropological problems. Students well prepared in such fields as biology, geology, agronomy, botany, computer science, history, and economics and who are interested in geography or anthropology should inquire. Admission to the department and awarding of financial assistance is based on compatibility of interests, grade point average, letters of recommendation, and GRE scores. International students whose native language is not English must have a TOEFL score of at least 550 on the paper-based test, a 213 on the computer-based test, or a 79 on the Internet-based test, an IELTS score of 6.5, or PTE score of 59. A TOEFL score of 575, equivalent IELTS, or equivalent PTE score is required to be considered for an assistantship. The departmental deadline for the application to be considered for funding is **January 25**.

## **Financial Assistance**

Applicants with excellent records are urged to apply for graduate assistantships providing stipends between \$12,000 to \$18,000 per year plus exemption from tuition. Master assistantships are for a maximum of two years, and doctoral awards for a maximum of four years. The graduate assistantship application deadline is January 25.

## **Research Facilities**

The department's Cartographic Information Center—housing more than one-half million maps and aerial photographs—is the nation's largest university map library. The Computer Mapping Sciences Laboratory houses computers with and software for ArcGIS, CrimeStat, EndNote, Erdas Imagine, GeoDa, Geomedia, Google Earth Pro, Microsoft Office, QGIS, R, SketchUp, and the VMware View client for connecting to LSU's Virtual Lab.The Remote Sensing Laboratory houses an array of color, infrared, and radar imagery and equipment for analysis.

Research in physical geography is supported by the H. J. Walker Geomorphology Laboratory. The department also houses the Southern Regional Climate Center and the Louisiana Office of State Climatology that monitor and analyze climatic records in the state and region. The Forensic Laboratory provides facilities for analysis of skeletal remains and dentition. The Archaeology Laboratory includes wet and dry labs, a fume hood, and facilities for analyses of a variety of artifacts, soils and sediment, shells, bones, and other materials. The DIVA Lab (Digital Imaging and Visualization in Archaeology) includes 3D scanners and computers for instruction, as well as a Dimension Elite 3D printer, a Projet 460 color 3D printer, a portable XRF, slide and binocular microscopes, fume hood, software for 3D and GIS analyses, and other 3D equipment for research. Archaeological labs and collections also are housed in the Museum of Natural Sciences directed by department archaeologist Rebecca Saunders.

## **Graduate Faculty**

(check current faculty listings by department here)

## Geography

Craig E. Colten (M) • Historical, environmental, North America, Louisiana

Kristine L. DeLong (M) • Climatic and environmental changes in the Quaternary; Atlantic studies; Palaeoenvironmental reconstruction

Barry Keim (M) • Climate change and variability, synoptic climatology, hydroclimatology, extreme events, climate data Kory Matthew Konsoer (6A) • Fluvial geomorphology, sediment transport, human-riverine impacts

Michael Leitner (M) • Spatial analysis and GIS, computer cartography, Europe

Brian J. Marks (6A) • Political geography, agrarian political economy, political ecology, fisheries and aquaculture

Kent Mathewson (M) • Cultural, historical, history of geography, Latin America, American South

Xuelian Meng (6A) • GIS, remote sensing

Steven Namikas (M) • Coastal geomorphology, hazards, physical geography

Alex Haberlie (6A) - Climate extremes, hazardous weather, land use on regional climatology

[dchico1] David Sathiaraj (3F)

Andrew Sluyter (M) • Landscapes of colonialism, Latin America, development and environmental policy

Jill C. Trepanier (6A) • Climatology

Fahui Wang (M) • Urban, economic, and transportation geography; public policy GIS; quantitative methods; China; Southeast Asia; U.S.

Lei Wang (M) • GIS, quantitative methods, terrain and hydrological analysis, remote sensing

### Anthropology

M. Jill Brody (M) • Linguistics, sociocultural, Middle America Juliet K. Brophy (6A) •Craniodental morphometric analysis, Hominin Evolution, Paleoenvironmental reconstruction, Zooarchaeology and taphonomy

David Chicoine (M) • Andean archaeology, complex societies, material culture, built environment, visual arts, foodways Joyce M. Jackson (M) • Ethnomusicology, folklore, Africa & diaspora, ritual performance, Louisiana Ginesse A. Listi (3F) • Forensics, bioarchaeology, paleopathology

Heather McKillop (M) • Ancient Maya, sea-level rise, trade and economy, 3D digital imaging and 3D printing Micha Rahder (6A) • Environmental anthropology, social & technology studies (STS), Latin America, tropical forests and biodiversity studies

Helen Regis (M) • Cultural anthropology, medical, Africa and African diaspora, performance in pop culture, American South Rebecca Saunders (M) • Southeastern United States prehistory, pottery analysis, contact period studies; also Associate Curator of Anthropology Museum of Natural Sciences

Robert G. Tague (M) • Anatomy, skeletal biology, reproductive biology, biological anthropology

## **Degree Programs**

This department offers a variety of research and instructional programs leading to the MA in Anthropology, the MS in Geography, the PhD in Anthropology, and the PhD in Geography. Graduate students may specialize in human geography, physical geography, mapping sciences, archaeology, biological anthropology, linguistics, cultural anthropology, or forensic anthropology. Regional foci include: Latin America, American South, East and Southeast Asia, and Africa.

Requirements for the M.S. degree in geography and M.A. in anthropology include a minimum of 30 credit hours, including six credits for a thesis. A master's degree in either is typically attained within two years if students attend as full-time status.

Requirements for the Ph.D. in Geography and the PhD in Anthropology include a minimum of 60 credit hours beyond the bachelor's degree or 30 hours beyond the master's degree, 10 hours of which are core courses, two or more advanced seminars, and an external minor or nine credit hours in approved cognate fields (including one seminar). Students must write a dissertation constituting an original contribution to the discipline.

## Anthropology, M.A.

### (AANTH)

Anthropology offers programs leading to the B.A., M.A., and PhD degrees in four major divisions of the field—archaeology, biological, cultural, and linguistic anthropology. Area expertise includes Latin America, the U.S. South and Gulf Coast, the Caribbean, and Africa. A minimum of 31 hours is required for the master's degree. Of those 31, at least 6 hours are thesis hours (ANTH 8000) and 1 hour includes the completion of Introduction to Graduate Study (ANTH 7901). The remaining 24 hours of coursework include: 3 required core courses (ANTH 4020, ANTH 4040, ANTH 4060), ANTH 7085 History of Anthropological Theory, 3 additional 7000-level courses (excluding ANTH 7085), and 1 elective course. At least 3 of the elective 7000-level courses must be ANTH seminars.

- 1. ANTH 7901 Introduction to Graduate Study (1)
- 2. 3 required core courses (ANTH 4020, ANTH 4040, ANTH 4060)
- 3. ANTH 7085 History of Anthropological Theory
- 4. 3 7000-level courses (excluding ANTH 7085) (at least 2 of the 7000-level courses must be ANTH seminars)
- 5. 1 elective course
- 6. 6 hours of thesis research (ANTH 8000)

### Anthropology, Ph.D.

#### (PANTH)

In addition to specific courses listed below, students must select a cognate (a suite of courses outside the department or in the department).

The Doctor of Philosophy (Ph.D.) is the highest degree offered at LSU. It recognizes and demands mastery of one or more subfields of the discipline. Doctoral students go far beyond the level required for lesser degrees, and their work is expected to be of such quality that it could grace the pages of scholarly books and journals. Although doctoral students are expected to exhibit the intellectual breadth required of an academic position, the Ph.D. is primarily a research degree, and doctoral students should expect to spend little time sitting in undergraduate lecture courses, save those needed to remedy deficiencies. The Graduate School allows doctoral students to write their dissertation in a book-manuscript style or as several journal-manuscript style papers. Both styles are popular among students in Anthropology. Students should consult the Graduate School web page for specific requirements.

The PhD curriculum involves a total of 31 hours beyond the master's degree (1/2 at 7000-level+) including:

ANTH 7901 Introduction to Graduate Study (1)
9 hours of 7000-level courses (exclusive of 7901)
9 hours in approved cognate fields (including one 7000-level course)
3 additional hours of 4000 or 7000-level coursework
9 hours of dissertation research (ANTH 9000)

#### **Cognate Field**

Departmental policy requires nine hours in approved cognate courses for the completion of the doctoral degree. The cognate courses must be listed on the student's program of study.

The cognate field requirement is composed of a suite of courses, of which at least three credit hours should be in an upper-level seminar (usually 7000-level). The courses need not be within a single discipline. The development of the cognate field may be quite flexible, and the specific suite of courses is developed by the student in consultation with the major professor and advisory committee. The cognate field may include traditional disciplines and emerging interdisciplinary fields, including, for example Biology, Communication Studies, Geology, Geography, History, and Women's and Gender Studies.

### **Climatology and Climate Change Graduate Certificate**

#### (CCLIM)

The Graduate Certificate in Climatology and Climate Change program trains both traditional and non-traditional students with on-campus courses. The program is designed to enhance career opportunities in industry, local, state, and federal government, laboratories, academia, and entrepreneurship by providing students and professionals with an interdisciplinary education focused on climate science and climate communication and policy.

The certificate is a 12 credit hour stand-alone program with courses offered in the Department of Geography & Anthropology, the Department of Agricultural Economics, the Manship School of Mass Communication, the College of the Coast and Environment, and the LSU Law Center. Students must complete at least 6 hours from a core of courses entitled "Climate Science" and 6 hours from a core of courses entitled "Climate Communications and Policy" for a combined total of 12 credit hours. The course breakdown is as follows (3 credit hours for each course):

#### Climate Science: Choose any 2 for 6 hours

• GEOG 4014 Climatology (3)

- GEOG 4015 Physical Climatology (3)
- GEOG 4016 Methods of Climatological Analysis (3)
- GEOG 4018 Geographical Hydrology (3)
- GEOG 4221 The Tropical Atmosphere (3)
- GEOG 4083 Environmental Change of the Ice Age (3)
- GEOG 7917 Advanced Physical Geography (3)
- OCS 7129 Global Climate Change and Wetlands (3)

#### Climate Communication, Human-Dimensions of Climate Change, and Policy: Choose any 2 for a total of 6 hours

- AGEC 7513 Dynamics in Natural Resource Economics (3)
- AGEC 7523 Nonmarket Valuation Methods in Agriculture and Natural Resources (3)
- ANTH 4997 Special Topics in Anthropology (3)
- ARCH 4041 Issues in Sustainability (3)
- CMST 4160 Persuasive Communication (3)
- ENVS 4261 Energy and the Environment (3)
- ENVS 4600 Global Environmental Change: Past, Present and Future (3)
- ENVS 7047 Environmental Economics and Policy (3)
- GEOG 4080 Historical Geography (3)
- GEOG 4997 Special Topics in Geography (3)
- LAW 5337: Law of Coastal Adaptation and Global Warming
- LAW 5414: Climate Change Law
- MC 7040 Crisis Communication (3)
- MC 7015 Mass Communication and Society (3)
- RNR 4107 Human Dimensions in Natural Resources (3)

For further information, please contact the Department of Geography & Anthropology at 225-578-5942.

### **Geographic Information Science Graduate Certificate**

#### (CGIS)

The Graduate Certificate in Geographic Information Science at LSU is a 12 credit hour stand-alone certificate with courses offered in the Department of Geography and Anthropology, College of Art and Design, Department of Economics, College of the Coast and Environment, Department of Civil and Environmental Engineering, and Department of Computer Science. Students must complete at least one method, theory, and applied topics course, for a combined total of 12 credit hours (though some courses may be listed under more than one category, they may only be used to fill one requirement). Elective courses allow students to choose a focus within the certificate. For example, a returning professional with an interest in sustainability studies could take Environmental Economics and Policy and Design of Environmental Management Systems as electives. Each department will offer at least one elective course per semester.

#### Who should consider applying?

- Graduate students who already have or are pursuing a graduate degree in another discipline but have a need to develop specific geospatial skills to apply to their primary discipline
- Professionals whose responsibilities include spatial analysis but have never had any training in this area
- People considering a graduate degree in this area but do not have the time to complete a full degree program
- Entrepreneurs who want to learn how to use the power of geospatial technologies to benefit their endeavors
- · Professionals with experience in geospatial technologies that would like to refine their skills

See the departmental website for a course breakdown.

For further information, please contact the Department of Geography & Anthropology, 225-578-5942.

## Geography, M.S.

#### (SGEOG)

Geography offers programs leading to the B.A., B.S., M.S., and Ph.D. degrees in several major divisions of the field biogeography, climatology, geomorphology, Quaternary studies, cultural geography, historical geography, economic development, urban geography, mapping sciences, and GIS. Area expertise focuses upon the Mississippi Valley, southern U.S., Latin America, China, central Asia and Afghanistan, the Middle East, and North Africa. In each division, there are numerous programs of research directed by outstanding scholars in the discipline.

A Master of Science (M.S.) degree is offered in geography. Students in all concentrations of geography including cultural, economic, urban, historical geography, physical geography, and GIS/mapping sciences enroll in the M.S. degree program. A proposed and defended thesis is required for completion of the M.S. program.

The master's degree provides the student with a broad knowledge of the history, theory, content, and techniques of geography. Such knowledge may be obtained by enrollment in specific courses or through independent study, either at LSU or at some other institution. Half the courses must be at the 7000-level or above, excluding thesis hours.

- 1. GEOG 7901 Introduction to Graduate Study (1)
- 2. GEOG 7902 Introduction to Research Methods in Geography (3)
- 3. 15 hours of 4000-level or above courses
- 4. 12 hours (four courses) of 7000-level courses (exclusive of 7901 and 7902)
- 5. 6 hours of thesis research (GEOG 8000)

### Geography, Ph.D.

(PGPHY)

In addition to specific courses listed below, students must select a cognate (a suite of courses outside the department or in the department).

The Doctor of Philosophy (Ph.D.) is the highest degree offered at LSU. It recognizes and demands mastery of one or more subfields of the discipline. Doctoral students go far beyond the level required for lesser degrees, and their work is expected to be of such quality that it could grace the pages of scholarly books and journals. Although doctoral students are expected to exhibit the intellectual breadth required of an academic position, the Ph.D. is primarily a research degree, and doctoral students should expect to spend little time sitting in undergraduate lecture courses, save those needed to remedy deficiencies. The Graduate School allows doctoral students to write their dissertation in a book-manuscript style or as several journal-manuscript style papers. Both styles are popular among students in Geography. Students should consult the Graduate School web page for specific requirements.

The PhD curriculum involves a total of 31 hours beyond the master's degree (1/2 at 7000-level+) including:

GEOG 7901 Introduction to Graduate Study (1)

GEOG 7902 Introduction to Research Methods in Geography (3)

9 hours of 7000-level courses (exclusive of 7901 and 7902)

9 hours in approved cognate fields (including one 7000-level course)

9 hours of dissertation research (GEOG 9000)

### Cognate Field

Departmental policy requires nine hours in approved cognate courses for the completion of the doctoral degree. The cognate courses must be listed on the student's program of study.

The cognate field requirement is composed of a suite of courses, of which at least three credit hours should be in an upper-level seminar (usually 7000-level). The courses need not be within a single discipline. The development of the cognate field may be quite flexible, and the specific suite of courses is developed by the student in consultation with the major professor and advisory committee. The cognate field may include traditional disciplines and emerging interdisciplinary fields, including, for example Anthropology, Biology, Environmental Science, Geology, History, Oceanography, Political Science, and Sociology.

## **Geology & Geophysics (Graduate Program)**

For information regarding the UNDERGRADUATE PROGRAM, click here.

## **Program Overview**

The Department of Geology & Geophysics offers a diverse graduate program in the earth sciences. Areas of specialization include biostratigraphy, environmental geology, geochemistry, geophysics, hydrogeology, mineralogy, palynology, petrology, sedimentology, stratigraphy, and tectonics. The department includes approximately 18 faculty members, 36 PhD candidates, 36 master's candidates, and 146 undergraduate majors. Graduate study in geology and geophysics at LSU provides a balanced combination of coursework and independent research. Research projects focus on important geologic problems throughout the U.S. and in countries on every continent. Graduates have been successful in obtaining employment in academia, government, and industry.

## Administration

Carol Wicks, Chair

Peter Clift, Graduate Advisor

Lisa E. Kirk, M.S., Graduate Coordinator

TELEPHONE 225-578-2946

FAX 225-578-2302

WEBSITE www.geol.lsu.edu

## Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed

to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Applications for admission are received and evaluated by the department Graduate Student Services committee. Applicants must adhere to the application deadlines established by the Graduate School.

Students seeking admission must submit satisfactory credentials from previous study, acceptable GRE scores, and three letters of recommendations. International students whose native language is not English must also submit an acceptable TOEFL, IELTS, or PTE score. Address all inquiries to the graduate coordinator in the Department of Geology & Geophysics. Applicants are encouraged to contact individual faculty members in their field of interest prior to application.

Admission is competitive based on prior study including prior research, GPA, GRE scores, letters of recommendation, the match between the student's research interest and faculty research interests, and availability of funding and facilities.

## **Financial Assistance**

Financial assistance is available to some students. Support may be available through the student's home department or other units in the form of research or teaching assistantships. A student should contact his or her home department for more information on available assistantship positions. To ensure consideration for financial aid, all application materials should be submitted in accordance with deadlines established by the LSU Graduate School.

The department offers graduate students several forms of financial aid including, but not limited to, Board of Regents Graduate Fellowships; fellowships from industry, alumni organizations, and geological societies; and teaching and research assistantships. Teaching assistantship stipends for the nine-month academic year are approximately \$16,000 for MS students and \$18,250 for PhD students. Students are responsible for paying applicable fees. To be considered for financial aid, please check the appropriate box on the application form.

## **Graduate Faculty**

(check current faculty listings by department here)

Huiming Bao (M) • Stable isotope geochemistry Philip J. Bart (M) • Seismic stratigraphy, sedimentology Sophie Warny Bart (M) • Palynology, biostratigraphy Sam Bentley (M) • Sedimentology Gary R. Byerly (EM) • Petrology and geochemistry, planetary and Archean geology Peter D. Clift (M) • Sedimentary & environmental geology Peter Doran (M) • Aquatic, climate, Quaternary and astrobiological sciences Barbara Dutrow (M) • Mineralogy, metamorphic petrology, fluid-rock interaction, computational modeling Brooks B. Ellwood (M) • Geophysics, stratigraphy, paleoclimate, geoarchaelogy Ray E. Ferrell (EM) Jeffrey S. Hanor (EM) George F. Hart (EM) Darrell J. Henry (M) • Metamorphic petrology, crystal chemistry, tectonometamorphism Achim Herrmann (6A) • Paleoclimate and paleoenvironment reconstructions Juan M. Lorenzo (M) • Marine, reflection seismology Amy Luther (3F) • Structural Geology Karen M. Luttrell (6A) • Geophysics, Crustal Deformation, Tectonic Hazards Clyde H. Moore (EM) Jeffrey A. Nunn (EM) • Geodynamics, subsurface fluid flow, tectonics Yongbo Peng (3F) • Isotope Geochemistry Patricia Persaud (6A) • Geophysics

Barun K. Sen Gupta (EM)
Louis J. Thibodeaux (M) • Environmental Chemodynamics
Suniti Kumara Karu Walimuni Devage (6A) • Remote sensing, Mars
Jianwei Wang (6A) • Computational earth materials and geochemistry
Carol Wicks (M) • Karst hydrogeology, geochemistry of natural waters
Carol Wilson (6A) • Deltaic Geology, Geochronology
Guangsheng Zhuang (6A) • Sedimentology, Geochronology

## **Applied Depositional Geosystems Graduate Certificate**

#### (CADGS)

The Graduate Certificate in Applied Depositional Geosystems (ADG) trains both traditional (those with BS degrees in geosciences) and non-traditional students (those with bachelor's degrees in other science and engineering fields) for career opportunities in the energy industry, in government agencies, and in academia. Providing students with training in this field enhances their skills in geology, mathematics, and the physical sciences, forming a basis for work in petroleum and water exploration, as well as environmental geology and engineering.

The Graduate Certificate in Applied Depositional Geosystems will be awarded to students successfully completing five courses (15 hours) from the options listed on the departmental website. No substitution of courses or transfer credit is permitted.

For further information, please contact the Department of Geology & Geophysics, 225-578-3353 or geology@lsu.edu.

\*\*\* Admission to the LSU Graduate School and to the Department of Geology & Geophysics is required. For specific information on graduate school admission, please see The Graduate School section of the catalog.\*\*\*

## Geology, M.S.

#### (SGEOL)

The departmental-level academic course plan for each student is developed in consultation with, and approved by, the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty (from the department or allied disciplines) such that the LSU Graduate School's requirements for graduate committees are satisfied. A major advisor must be selected by the end of first semester in the degree program. Thesis committee must be selected by end of second semester in the degree program.

The degree is a thesis degree requiring a research project. Thirty hours of credit at the graduate level must be earned including a maximum of six hours of credit for thesis research. The curricular requirements include:

- 24 hours in graded class work in courses numbered 4000 or above;
- At least 13 hours at the 7000 level or above must include at least 3 credit semester hours in graduate seminars;
- Completion of a thesis must demonstrate the candidate's capacity for independent research, originality of thought, critical thinking and facility in organizing and interpreting materials; and
- A public defense of the thesis is required once the thesis committee has approved a final draft. Public notice and distribution of draft copies of thesis to committee members and graduate coordinator must be made at least two weeks prior to public defense.

### Geology, Ph.D.

(PGEOL)

The departmental-level academic course plan for each student is developed in consultation with, and approved by, the student's graduate advisory committee. The committee will include the student's major advisor and at least three additional members of the graduate faculty in the department or allied areas so that requirements of the LSU Graduate School for graduate committees are satisfied. Major advisor must be selected by end of first semester in degree program. Dissertation committee must be selected by end of second semester in degree program.

The degree requires a dissertation project. Sixty hours of credit at the graduate level must be earned including a minimum of nine hours of credit for the thesis research project.

#### Course Requirements:

Successful completion of at least 60 semester hours in courses numbered 4000 or above;

- The Doctoral student must take a minimum of 24 hours of graded course work and seminars beyond the B.S. degree distributed as follows:
  - 1. At least 12 hours at the 7000 level, with the remainder at the 4000 level. The majority of course credit should be courses with the GEOL prefix. The remainder may be taken outside the department, with all selections to the approval of the Graduate Advisor, the student's major professor, and Dissertation Committee.
  - 2. Seminar: must take 4 credit hours of seminar.
- The Doctoral student must take at least 9 hours of GEOL 9000 Dissertation Research (1-12 per sem.)
- The remaining 26 hours can be any combination of course work and 9000-level graduate credits which meet with the approval of the Major Professor and Dissertation Committee.

Up to 24 hours of M.S. or graduate transfer credit in graded course work can be counted towards the Ph.D. requirements.

Other PhD requirements include:

- a. Comprehensive Research Proposal Exam: tests the student's ability to conduct original, independent research and is administered by the student's graduate advisory committee during the third semester in degree program. The exam consists of oral defense of a written thesis proposal or equivalent research proposal.
- b. The general examination is the culmination of a student's program in coursework, consisting of two parts: a written exam followed by an oral exam. The student will be expected to demonstrate expert competence over broad segments of her/his major field and a high degree of familiarity with the content of and current progress in related fields. The examination must be taken <u>during or immediately following the semester</u> in which all coursework is completed. The exam is administered by graduate advisory committee plus two additional graduate faculty members appointed by the graduate advisor and the dean of the Graduate School.
- c. A public defense of the dissertation is required once the dissertation committee has approved a final draft. Public notice and distribution of draft copies of document to committee members and graduate coordinator must be made at least two weeks prior to public defense.

## History (Graduate Program)

For information regarding the UNDERGRADUATE PROGRAM, click here.

## **Program Overview**

The Department of History has earned an outstanding reputation for both the quality of its teaching and the high standards of its scholarship. The LSU Libraries contain more than three million volumes, more than five million microforms, and a manuscript collection of more than 12 million items. LSU's Special Collections, housed in Hill Memorial Library, are especially rich in materials relating to the Lower Mississippi Valley, the South, the Civil War, and Reconstruction. The Louisiana State Archives in Baton Rouge and several repositories in nearby New Orleans also house important research documents close at hand.

The department is nationally and internationally recognized as a center for the study of the South and the Civil War. It also has graduate students and faculty working in a host of other areas of American history, including the cultural history of the 20th century. It has particular strengths in British history, the Middle Ages and Renaissance studies, and modern European history. In addition, it has faculty members who publish in and teach the history of the ancient world, Latin America, Africa, as well as South and East Asia.

## Administration

Aaron Sheehan-Dean, Chair	asd@lsu.edu
Alecia Long, Director of Graduate Studies	aplong@lsu.edu
TELEPHONE	225-578-4471
WEBSITE	https://www.lsu.edu/hss/history/index.php

## Admission

Students applying for entrance to the Graduate School must submit an application for admission. This must be submitted on-line (gradapply.lsu.edu). Students must submit their scores on the GRE; the minimum combined score required for application is 300. In addition, official transcripts of all previous undergraduate and graduate work, a statement of purpose, three letters of recommendation and a writing sample of approximately 10-20 pages should be submitted online as supporting materials. Those applying for the Ph.D. program should include a portion of their Master's thesis as a writing sample. For admission or advancement to the Ph.D. program, an M.A. in History is required. Decisions are made only after receipt of all credentials. The entire application, including all supporting materials, must be submitted via the LSU Graduate School's online application website (gradapply.lsu.edu). Hard copies of official transcripts should be submitted directly to the LSU Office of Graduate Admissions.

To be considered for fellowships and assistantships for the fall semester, completed applications must be submitted by JANUARY 15, although completed applications submitted after that date but before APRIL 1 may also be considered. The department does not accept applications for spring admission.

## **Financial Assistance**

All completed applications for admission to the M.A. and Ph.D. programs received by January 15 will be considered for teaching assistantships currently valued at approximately \$15,000 for the nine-month academic year, renewable for up to four years. Students with assistantships also are exempt from tuition payments, although they must still pay required university fees. A recent schedule of university fees can be found on the Budget and Planning Fee Schedule website.

## **Graduate Faculty**

(check current faculty listings by department here)

Please click on individual faculty web pages for publications and contact information.

Asiya Alam • South Asia Stephen Andes • Mexico, modern Latin America Andrew Burstein • American Revolution, U.S. early national Gibril R. Cole • Africa Maribel Dietz • Medieval, Late Antiquity Jonathan H. Earle • Early Republic, slavery, antebellum U.S. Gaines M. Foster • New South, U.S. religion and cultural Zevi Gutfreund • 20th century U.S., immigration, education Nancy G. Isenberg • U.S. early national, law, gender Catherine O. Jacquet • 20th century U.S., gender, sexuality Sherri Franks Johnson • Medieval, women Brendan Jeffrey Karch • Central and Eastern Europe Christine J. Kooi • Renaissance, Reformation, early modern Netherlands Alecia P. Long • Louisiana, U.S. gender, sexuality Suzanne L. Marchand • Germany/Austria, European intellectual Michael Pasquier • U.S. religion, Louisiana Kodi Roberts • U.S., African-American Aaron C. Sheehan-Dean • Civil War, U.S. South Charles J. Shindo • 20th century U.S., cultural, Asian American Victor Stater • Tudor-Stuart England, early modern Europe Leslie Tuttle • Early modern France, France, gender, cultural Meredith Veldman • Modern Britain, 20th century Europe Margherita Zanasi • Modern China, nationalism, identity, economic thought

### History, M.A.

#### (AHIST)

The program requires a minimum of 30 semester hours of credit (students frequently take more) with a thesis—24 hours of coursework and at least 6 hours of thesis research; 36 hours are required for a non-thesis MA. Half the coursework hours for both degrees must be at or above the 7000 level. Graduate students may also take 4000-level courses with a member of the graduate faculty who will assign additional work to earn graduate-level credit. Students may take HIST 7902, Independent Study, no more than twice for a total of 6 credit hours. A non-thesis M.A. is regarded as a terminal degree.

All students must select, no later than the end of their first semester in the program, a major professor with whom he or she will complete substantial study, including the thesis if the student is writing one. A minor field outside the department may be elected, normally consisting of nine semester hours of credit. Reading proficiency in a foreign language is not a general requirement, but may be required by a major professor for students working under his or her direction.

A final examination committee is chosen when the student nears the end of his or her program. The student selects those 24 hours of study, including work with the major professor, upon which to be examined. The examining committee includes the major professor, the minor professor if a minor field was elected, and one or two others in the department whose specialties coincide with other history work offered for examination. If a student writes a thesis, the examination will be a defense of the thesis. Both thesis and non-thesis M.A. candidates must complete this examination. The examination on this material is oral. After the completion of the examination, the committee will make a formal recommendation in writing about the suitability of the student for Ph.D.-level work, unless it is a non-thesis M.A.

The sequence of courses depends on the area of concentration and on whether or not one writes a thesis. Course work will primarily be in research and reading seminars.

**Research seminars:** All M.A. students must take a research seminar sequence (HIST 7908 and HIST 7957 for U.S. history; HIST 7908 and HIST 7909 for all other fields). If a seminar needed to fulfill the requirements for the course of study is not offered in a given semester, the student may fulfill the requirement through independent study in consultation with the major professor.

**Reading seminars:** All M.A. students must take a minimum of four reading seminars. For students in Modern European or British history these reading seminars will number between HIST 7917 and HIST 7930. Students in American history will take HIST 7904, HIST 7951, HIST 7952, HIST 7956, HIST 7958 and HIST 7959.

### Specialization in U.S. History

### 1st Year (18 hours)

### Fall:

- HIST 7908 Introduction to Historical Research (3)
- HIST 7951 Reading Seminar in American History, 1607 to 1815 (3)
- HIST 7958 Research Seminar: Special Topics in American History (3) or
- HIST 7959 Reading Seminar: Special Topics in American History (3)

### Spring:

- HIST 7957 Research Seminar in American History (3)
- HIST 7952 Reading Seminar in American History, 1815-1890 (3)
- HIST 7958 Research Seminar: Special Topics in American History (3) or
- HIST 7959 Reading Seminar: Special Topics in American History (3)

### 2nd Year (12-18 hours)

### With thesis - Fall:

- HIST 7904 American Historiography and Criticism (3)
- HIST 7956 Reading Seminar in American History from 1890 to the Present (3)
- HIST 8000 Thesis Research (1-12 per sem.) (3 credits required)

### With thesis - Spring:

• HIST 8000 Thesis Research (1-12 per sem.)

### Note:

HIST 8000 may be taken for up to nine hours a semester, however, only six hours will count toward fulfilling the requirements for the MA

### Without thesis - Fall:

- HIST 7904 American Historiography and Criticism (3)
- HIST 7956 Reading Seminar in American History from 1890 to the Present (3)
- History Elective (3)

### Without thesis - Spring:

• 9 hours of history electives (6 may be in a minor field)

### Specialization in Latin American History

A program will be devised to meet the student's preferences, to include four reading seminars, one or two research seminars, thesis research if applicable, and additional history electives and/or outside minor fields.

### Specialization in European or British History

The specific course selection and sequence will vary to fit the concentration chosen.

### With thesis - 1st year (18 hours)

Fall:

- HIST 7908 Introduction to Historical Research (3)
- One elective in History or Minor Field (3)

### Choose one:

depending on offerings

- HIST 7917 Reading Seminar in Early Modern Europe (3) \*
- HIST 7922 Reading Seminar in European History to 1650 (3) \*
- HIST 7923 Reading Seminar in European History from 1500 (3) \*
- HIST 7930 Reading Seminar in British History (3) \*

### Spring:

- HIST 7909 Research Seminar in European History (3)
- One elective in History or Minor Field (3)

### Choose one:

depending on offerings

- HIST 7917 Reading Seminar in Early Modern Europe (3) \*
- HIST 7922 Reading Seminar in European History to 1650 (3) \*
- HIST 7923 Reading Seminar in European History from 1500 (3) \*
- HIST 7930 Reading Seminar in British History (3) \*

### With thesis - 2nd year (12-18 hours)

### Fall:

• HIST 8000 Thesis Research (1-12 per sem.)

### Choose one:

depending on offerings

- HIST 7917 Reading Seminar in Early Modern Europe (3) \*
- HIST 7922 Reading Seminar in European History to 1650 (3) \*
- HIST 7923 Reading Seminar in European History from 1500 (3) \*
- HIST 7930 Reading Seminar in British History (3) \*

### Spring:

- HIST 8000 Thesis Research (1-12 per sem.) (3 credits required)
- Electives (6)

### Without thesis - First Year (18 hours)

### Fall:

- HIST 7908 Introduction to Historical Research (3)
- One Elective in History or Minor Field (3)

### Choose one:

depending on offerings

- HIST 7917 Reading Seminar in Early Modern Europe (3) \*
- HIST 7922 Reading Seminar in European History to 1650 (3) \*
- HIST 7923 Reading Seminar in European History from 1500 (3) \*
- HIST 7930 Reading Seminar in British History (3) \*

### Spring:

- One Elective in History or Minor Field
- HIST 7909 Research Seminar in European History (3)
  - One Elective in History or Minor Field (3)

### Choose one:

depending on offerings

- HIST 7917 Reading Seminar in Early Modern Europe (3) \*
- HIST 7922 Reading Seminar in European History to 1650 (3) \*
- HIST 7923 Reading Seminar in European History from 1500 (3) \*
- HIST 7930 Reading Seminar in British History (3) \*

### Without thesis - Second Year (18 hours)

### Fall:

• One Elective in History or Minor Field (3)

### Choose two:

depending on offerings

- HIST 7917 Reading Seminar in Early Modern Europe (3) \*
- HIST 7922 Reading Seminar in European History to 1650 (3) \*
- HIST 7923 Reading Seminar in European History from 1500 (3) \*
- HIST 7930 Reading Seminar in British History (3) \*

### Spring:

• Three Electives in History or Minor Field (9)

### Note:

Non-thesis students may at the end of their second year still elect to write a thesis and extend their residency and registration accordingly.

\* Students concentrating in Europe to 1650 may substitute a history elective for one of the Reading Seminars.

## History, Ph.D.

### (PHIST)

The basic requirements for the Doctorate are specified in the LSU Catalog. It is the responsibility of each graduate student to be familiar with these stipulations and fulfill them. A minimum of 54 semester hours of coursework and dissertation research are necessary to complete the program, but the plan of coursework depends on the student's earlier preparation in history. The major requirement is a dissertation "which embodies creative scholarship" and which "must add to the sum of existing knowledge and give evidence of considerable literary skill." Each student must offer two fields of study: one major field and one minor field.

#### **Coursework and Examinations:**

Coursework: Students entering the program with a MA from another university will take the basic seminars in their major field. In Ancient/Medieval/Early Modern European History, they are HIST 7908, HIST 7909, and at least three seminars numbered between HIST 7917 and HIST 7930. In Modern European and British History, they are HIST 7908, HIST 7909, and at least four seminars numbered between HIST 7917 and HIST 7917 and HIST 7930. In United States history, they are: HIST 7904, HIST 7908, HIST 7908, HIST 7951, HIST 7952, HIST 7956, HIST 7957, plus two Special Topics seminars (HIST 7958 and/or HIST 7959). Students will also have to take courses in their minor fields and may want to take other courses in their major fields. Students who have completed a MA in our department will have already completed these basic seminars.

#### **Major Fields:**

Those fields offered by the Department are: US History (inclusive), Latin American History, Europe to the Middle Ages, Medieval and Early Modern Europe, European History since 1500, and British History. A major field committee requires at least three members of the graduate faculty, two of whom must be from the Department of History.

#### **Minor Fields:**

Each student must complete one minor field that falls outside the scope of the major field. Approval of the selection and scope of the field will be made by the student's major professor and minor field professors. Typically, a minor field will require nine hours of coursework. Minor fields may be selected from the list of offered major fields, from Asian History, or an approved aspect or period thereof. Minor fields cannot fall within the same major field. For students concentrating in US history, the minor fields must fall outside the geographic parameters of the US. Requirements for fulfilling the minor field will be determined by the student's minor field professor.

Students may elect to take a minor field outside of the department, but only with the permission of their major professors. Requirements for an outside field will be determined by the outside department.

#### World History Minor

The department also offers a minor field in World History, the requirements for which are as follows:

The minor requires both a set amount of coursework and an examination.

#### COURSES:

HIST 7970, Reading Seminar in Comparative History, when offered in the field of World History and approved by the minor's coordinator.

Students must take two 4000- or 7000 level courses—for a total of 6 hours—in two of the following areas, outside their major field: Africa, East Asia, Latin America, and South Asia. A thematic course that cuts across regions or courses in European or US history with a decisive transnational or global theme may be substituted for one of these, if approved by the coordinator of the minor.

#### EXAM:

Students in the world history minor need to take a general examination. Recognizing the double goal of this minor, the examination might consist of preparing a syllabus for teaching a world history survey or writing two essays on topics determined by the examination committee and reflecting the research interests of the student in question. The exam will be submitted to a 3-person committee from the World History faculty, who will also conduct an oral exam based on the written assignment.

#### Single Minor

- 1. HIST 7970 Reading Seminar in Comparative History (3) when offered in the field of World History and approved by the minor's coordinator.
- 2. Students must take one 4000- or 7000-level course in one of the following areas: Africa, East Asia, Latin America, and South Asia.

#### **Double Minor**

- 1. HIST 7970 Reading Seminar in Comparative History (3) when offered in the field of World History and approved by the minor's coordinator.
- 2. Students must take three 4000- or 7000-level courses- for a total of 9 hours- in three of the following areas, outside their major field: Africa, East Asia, Europe, Latin America, South Asia, and the United States. A thematic course that cuts across regions may be substituted for one of these.

#### **Doctoral Degree Audit:**

Before taking general exams for the PhD, each student will prepare, in consultation with his or her committee, a Request for Permission to take the General Exam and Doctoral Degree Audit form (available from the Graduate School website) which specifies requirements for course work and other aspects of the student's course of study. When these requirements are completed, the student takes the general examinations.

#### **General Examinations:**

General examinations will be offered once each semester, in November and April. Minor field exams may consist of a four-hour written exam; in certain cases, a minor field may consist only of course work and a written exam will not be given. Once the minor field exam (or course work) has been completed, the student must take the major field exams the following semester. The major field exam will consist of two six-hour written exams and an oral examination with the student's committee (which must include at least three members of the graduate faculty) and a representative from the Graduate School. Once the major field examination has been successfully completed, the student becomes a PhD Candidate. By the end of the semester in which the student passes the general exam the student must produce for his or her adviser and the DGS a one-page dissertation prospectus and preliminary curriculum vitae.

#### **Final Examinations:**

After completing the dissertation, the candidate defends it in an oral examination. The examining committee consists of the student's major professor, and at least two other graduate faculty from the Department of History or other departments in the University, and a representative from the Graduate School, in accordance with the guidelines outlined in *The Graduate School* section.

#### Foreign Language Requirement:

It is required that all PhD students in American and British history must demonstrate reading proficiency in one foreign language, and PhD students in all other concentrations must demonstrate reading proficiency in two foreign languages (for medieval history one of those languages should be Latin). Each student must fulfill the foreign language requirement before advancing to the general examinations; the requirement is deemed complete by faculty in the Department of History. Reading proficiency may be demonstrated through a sight translation conducted by a member of the faculty or by successfully completing a reading knowledge course offered by the Departments of Foreign Languages or French Studies. The requirements for language skills differ by field; students should consult with their major professor for requirements in their areas.

### Joint Degree: M.A./M.L.I.S.

# Joint Degree Program in History (MA) and the School of Library & Information Science (MLIS)

The department, in conjunction with the School of Library & Information Science, also offers a joint degree program in which a student can earn a Master of Arts degree in history and a Master of Library Science & Information degree simultaneously with the completion of 60 hours. A separate application to the School of Library & Information Science is necessary.

The basic requirements for the joint degree program are the same for the regular non-thesis MA program in the Department of History and the MLIS program in the School of Library & Information Science. The joint degree program, however, has been designed to allow the student to complete the 36 credit hours for the MA and the 36 credit hours of the MLIS by completing a total of only 60 hours.

Elective courses in the School of Library & Information Science eligible for credit for the history MA degree: Any two threehour graduate level courses focused on history or archives management.

Elective courses in the Department of History eligible for credit for the MLIS degree: Any two three-hour graduate courses at the 7000-level in the Department of History.

## **Industrial Engineering (Graduate Program)**

For information regarding the UNDERGRADUATE PROGRAM, click here.

## **Program Overview**

Industrial engineering is a branch of engineering that is concerned with the development, improvement, implementation and evaluation of integrated systems of people, money, knowledge, information, equipment, energy, materials, analysis and synthesis, as well as the mathematical, physical and social sciences together with the principles and methods of engineering design to specify, predict, and evaluate the results to be obtained from such systems or processes. It encompasses specialized knowledge and skills in the physical, social, engineering, and management sciences, such as human and cognitive sciences, computer systems and information technologies, manufacturing processes, operations research, production, and automation. The industrial engineer integrates people into the design and development of systems, thus requiring an understanding of the physical, physiological, psychological, and other characteristics that govern and affect the performance of individuals and groups in working environments.

Industrial engineering (IE) at LSU is a unique academic program in Louisiana, bringing together in one program, opportunities for students in ergonomics and occupational health, information technology, and production/manufacturing systems, and to develop skills in traditional industrial engineering activities. The program relies on rigorous mathematical and logical approaches to theoretical and practical problem solving, with extensive use of computers and industrial-class software for optimization of integrated processes and systems. The program has a formal program leading to the Master of Science in Industrial Engineering. Students may also pursue master's and doctoral programs in engineering science, with specialization in industrial engineering.

## Administration

Craig M. Harvey, Program Director

TELEPHONE225-578-5804 (reception); 225-578-8761 (IE Program Director)FAX225-578-5924WEBSITEwww.mie.lsu.edu

## Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Graduate Student Services, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Applications for admission are received and evaluated by the Department of Mechanical and Industrial Engineering. Applicants must adhere to the application deadlines established by the Graduate School.

Applicants for admission to the master's program in industrial engineering or the interdisciplinary doctoral program must meet or exceed all requirements stipulated by the Graduate School, including satisfactory scores on the verbal and quantitative portions of the GRE, an overall grade point average of 2.75 or a 3.00 for the last 60 hours of undergraduate work, and a satisfactory TOEFL, IELTS, or PTE score for international students. Although most applicants will have undergraduate degrees in engineering, applicants from other disciplines may be accepted if they complete a sequence of engineering science prerequisite courses. Applicants with baccalaureate degrees in engineering, other than industrial engineering, must complete a sequence of 12 semester hours, including IE Fundamentals, Engineering Statistics, Engineering Economy, and Scientific and Professional Writing. This requirement may be waived if the applicant is judged by the faculty to have taken the equivalents of these courses.

## **Financial Assistance**

Some departmental/programmatic assistantships are available for qualified students and are awarded each semester, based on programmatic needs and student qualifications. Except in unusual cases, no master's candidate will be awarded a departmental/programmatic assistantship for more than four semesters. A doctoral candidate may be awarded a departmental/programmatic assistantship for up to six semesters. Faculty who have funded research projects provide additional assistantships for participating graduate students. Faculty members also recommend students for fellowships and stipends when these become available.

## Facilities

The Industrial Engineering (IE) Computer Laboratory, used for computer lab instruction and open use by IE students, is equipped with 48 computers. Software includes Microsoft Office Professional, Visio, Microsoft Project, Primavera P6, AutoCAD, Simio (factory simulation), Lingo (optimization), SAS, Minitab, MATLAB, Maple, Visual Studio.NET (C++, C#, VB, ASP), Java, and many other applications supporting IE coursework. The lab is supported by a bank of twelve servers providing support of coursework in development of information systems, Web application systems, eCommerce systems, and client/server support for project management and simulation courses.

The Human Factors Laboratory offers and supports training and research in safety engineering, human factors, and ergonomics by providing laboratory space and computing equipment. Two laboratories supporting human factors and safety, the Work Evaluation Laboratory and a Human Factors Laboratory, provide students with the appropriate tools and environment for research in the areas of biomechanics, work environment design, cognitive ergonomics, and control systems. Some of the available research equipment includes a treadmill, 2-D and 3-D Motion Analysis System (Ariel performance analysis system), force platform, 8 Channel Wireless EMG System, Dual Axis Goniometers, GPM Anthropometer, Computerized Exercise Machine, C-Motion - Motion Analysis Software, Human CAD Software, 3D Static Strength Prediction Program, Deltatrac metabolic monitor), human musculoskeletal models, vibration meter, and the like. The Safety Laboratory allows hands-on demonstrations of industry safety equipment in addition to simulation software for modeling petrochemical control room operations.

The Systems Integration Laboratory is used for research and instruction in the integration, automation, and control of process and discrete-part manufacturing systems with particular emphasis on the application of information technologies to these systems. The Systems Integration Lab has twelve workstations. Equipment includes three Allen Bradley PLC with modules for digital and analog I/O and thermocouple measurement; AC and DC motor controllers; a four-axis motion controller; servo and stepper motors and other actuators; high speed data acquisition and control boards; a remote national instruments data acquisition fieldpoint unit, digital and analog sensors and instrumentation, a visual inspection system, and networking equipment for use in laboratory instruction. Software available includes WonderWare and Lookout SCADA software, Labview Development Suite (virtual instrument development), Visual Studio.NET, Java, SAS, Lingo, ARENA, and Rockwell Software RSLogix Ladder Logic programming, AutoCAD, Matlab, and numerous other application and development packages.

## **Graduate Faculty**

(check current faculty listings by department here)

Fereydoun Aghazadeh (M) • Human Factors Engineering, Construction Ergonomics, Work Physiology, Occupational Biomechanics, Safety Engineering

Craig M. Harvey (M) • Human Factors Engineering, Safety Engineering, Human Computer Interaction

Laura Ikuma (M) • Human Factors Engineering, Safety, Musculoskeletal Disorders, Psychosocial Factors

Hyun Jeon (6A) • Manufacturing Process Modeling, Energy Analysis for Manufacturing Systems, Queueing Networks, Stochastic Processes, Simulation, Applied Operations Research

Gerald Knapp (M) • NLP, text & data analytics, Information Systems and Technology, Systems Integration, Maintenance Management, Reliability Engineering

Richard Koubek (M) • Usability Engineering, Job Design, Human Factors Engineering and Ergonomics.

T. Warren Liao (M) • Soft Computing, Supply Chain Management, Logistics & Distribution, Lean Six Sigma, Advanced Materials and Manufacturing, Data Mining

Lawrence Mann, Jr (EM) • (Professor Emeritus) Maintenance scheduling, planning, computer systems, design for maintenance, inventory control, reliability, industrial and labor relations.

Isabelina Nahmens (M) • Quality Management, Lean, Six Sigma, Project Management, Healthcare Systems Engineering, Construction

Bhaba Sarker (M) • Production and Manufacturing Systems Engineering: Production Planning & Control, Flexible/Cellular Manufacturing Systems, Material Handling, Scheduling, Location Theory, JIT Inventory Systems, Warehouse Logistics and Distribution, Lean Manufacturing, Supply Chain Management, Military Logistics, Renewable Energy Systems, and Applied Operations Research.

### **Engineering Science, Ph.D.**

#### (PES)

The college accepts qualified students with bachelor's or master's degrees in engineering or a pure or applied science to work toward a PhD in this interdisciplinary program. The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee must consist of at least three members of the graduate faculty. The major professor (advisory committee chair) must be from a department within the College of Engineering and at least one member of the student's committee must come from a department offering the PhD degree in the College of Engineering. The advisory committee must also include representatives from the sub-areas of specialization.

A PhD departmental-level academic course plan, approved by the student's advisory committee, should be submitted to the Associate Dean for Academic Affairs in the College of Engineering by the start of the second semester of enrollment. Students applying to transfer into Engineering Science or to enroll as dual degree after one semester at LSU, MUST complete the Engineering Science PhD plan of study as part of the application process. This early plan of study will map directly to the Doctoral Degree Audit form required by the LSU Graduate School as candidates near completion of their coursework.

The student will be required to complete a minimum of 54 semester hours of approved coursework beyond the bachelor's degree and prepare a dissertation acceptable to his or her advisory committee and the Graduate School. At least half of the coursework (27 semester hours) must be taken in courses offered by departments within the College of Engineering. Requirements include 24 hours of coursework concentrated in at least two sub-areas of specialization within one or more academic departments. The remaining 30 semester hours of coursework must contain no more than 15 hours in any one department.

The interdisciplinary degrees of the Ph.D. in Engineering Science are offered in Materials Science and Engineering, Environmental and Technological Hazards Engineering, Information Technology Engineering, Biological Engineering, and Construction Management. The Ph.D. requires at least two sub-areas of specialization within one or more academic departments, in addition to the major concentration area of study.

### **Engineering Sciences, M.S.E.S.**

### (MES)

The MS in Engineering Science program - offered with both thesis and non-thesis options - provides an opportunity for study in areas not represented by departments within the college. Students can enter the program with a baccalaureate degree in any field of engineering or in a pure or applied science. The departmental-level academic course plan for each student (due at the end of the first semester) will be developed in consultation with and approved by the student's graduate advisory committee. Graduate School regulations require the major professor (committee chair) to be a graduate faculty member from a department within the College of Engineering. The committee must also include at least two additional members of the graduate faculty.

The minimum requirements for the thesis option are 24 semester credit hours coursework, six additional hours of thesis research credit, and successful defense of a research thesis. The non-thesis option requires a minimum of 36 semester hours of coursework including a three-credit hour project course. The project course incorporates a written report and oral presentation to the graduate advisory committee. Additional coursework may be necessary for students lacking the proper course prerequisites or as required by the graduate advisory committee and specified on an approved plan of study.

At least one-half of the coursework must be College of Engineering courses and at least one-half of the total coursework must be at the 7000 level (excluding thesis hours). The program requires emphasis in at least two areas of study not available within a single department and at least 18 hours of required coursework and one academic year in residence must be completed after admission to the program.

A plan of study, approved by the student's advisory committee, must be submitted to the Associate Dean for Academic Affairs in the College of Engineering by the end of the first semester of enrollment at LSU.

Students applying to transfer into Engineering Science or to enroll as dual degree after one semester at LSU MUST complete the Engineering Science plan of study as part of the application process.

### Industrial Engineering, M.S.I.E.

#### (MIE)

The IE program in the Department of Mechanical & Industrial Engineering offers a Master of Science degree in Industrial Engineering (MSIE). Participants can also earn an interdepartmental Master of Science in Engineering Science (MSES) degree with a concentration in Information Technology Engineering (ITE) administered by the College of Engineering. The master's program in Industrial Engineering is offered with both thesis and non-thesis (project) options. For the thesis option, students must complete at least 24 hours of coursework and six hours of thesis research. For the project option, students must complete at least 33 hours of coursework and a three credit hour master's project in independent study format. For some students, additional courses may be required as prerequisites or to demonstrate English proficiency. Credit hours counting toward program requirements must be in courses allowed for graduate credit as described in the *LSU General Catalog*. Both thesis and non-thesis degree programs in Industrial Engineering are available with the ability for a student to focus on: Ergonomics and Human Factors, Healthcare, Supply Chain Systems, and Information Technology Engineering.

The program-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

Industrial Engineering students can also earn a Doctor of Philosophy through the Engineering Science program with major concentration in Industrial Engineering or its variants. For the interdepartmental doctoral program in engineering science, a student must complete 54 semester hours of graduate-level courses beyond the bachelor's, with half of these hours at or above the 7000-level. Two sub-areas of specialization are required, comprising a total of 24 hours, with at least one 7000-level course in each area. Each student must complete and successfully defend a dissertation research topic and general examination. The doctoral program is administered by the associate dean for Academic Programs in the College of Engineering.

## **Kinesiology (Graduate Program)**

For information regarding the UNDERGRADUATE PROGRAM, click here.

## **Program Overview**

The term kinesiology means "study of movement." In the kinesiology graduate program, human movement is studied from different perspectives, forming the basis for graduate specializations in exercise physiology, motor behavior, pedagogy/psychological sciences, and sport management.

• Exercise physiology is focused on the genetic, biochemical, and clinical evaluation of physiological alterations to exercise training and detraining in both human and animal models. This focus is centered on modifications in the muscular, cardio respiratory, and immune systems from an aging, disease, or peak performance perspective.

- Motor behavior research focuses on the learning and performance of coordinated movement, with particular interest in topics such as gait and balance control whole and fine motor coordination, musculoskeletal system control, sensorimotor and cognitive-motor integration, effective and efficient skill learning, and motor rehabilitation. Pedagogy/psychological sciences research investigates factors that influence teaching, learning, and behavior choices in a broad range of physical activity settings, including physical education, health education, and exercise programs.
- Pedagogy/psychological sciences research investigates factors that influence teaching, learning, and behavior choices in a broad range of physical activity settings, including physical education, health education, and exercise programs.
- Sport Management research focuses on the social construction and organization of sport and sport organizations, centering on management, sociological, and organizational perspectives.

## Administration

Melinda Solmon, Director

Chad Seifried, Graduate Coordinator

TELEPHONE	225-578-2036
FAX	225-578-3680
WEBSITE	https://www.lsu.edu/chse/kinesiology/index.php

## Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Applications for admission are received and evaluated by the departments throughout the year. Applicants must adhere to the application deadlines established by the Graduate School. Applications are continuously evaluated and students may be admitted for any semester. To ensure full consideration for financial assistance, applicants are encouraged to submit their materials by **February 1** for admission in the fall semester.

Students seeking admission must submit satisfactory credentials from previous study, including a bachelor's degree in a related field, acceptable GRE scores (GMAT can be used for admission to the sport management specialization), and three letters of recommendation. The target GRE score is 295-300 (combined verbal and quantitative sections), but students may be admitted with lower scores with high undergraduate GPAs and strong letters of recommendation. The school adheres to the minimum GPA requirement of 3.0 on a 4.0 scale set by the LSU Graduate School for regular admission. International students whose native language is not English must also submit an acceptable TOEFL, IELTS, or PTE score according to the standards set by the LSU Graduate School.

Meeting the minimum entrance requirements does not ensure acceptance into the program. The school accepts qualified students whose interests and goals are consistent with our areas of specialization. Full admission is granted when students meet the minimum standards and a graduate faculty member agrees to serve as their advisor. If a student does not meet all requirements, he or she may be admitted provisionally.

## **Financial Assistance**

A limited number of graduate assistantships and fellowships are available. Most assistantships require both teaching and assisting in research. Application forms are available on the school website.

## **Graduate Faculty**

(check current faculty listings by department here)

Kwame J. A. Agyemang (M) • Social change centered on the influence and role of high profile social actors (e.g., athletes; sport organizations) to various societal challenges

Claude Bouchard (M) • Genetics and physical activity (Pennington Biomedical Research Center)

Ralph Ray Castle (3F) • Clinical effectiveness of physical rehabilitation techniques/therapeutic modalities on acute and chronic inflammatory responses

Senlin Chen (M) • Physical education curriculum intervention, youth physical activity and fitness promotion, motivation and learning in physical activity

Marc Dalecki (6A) • human motor control and cognition under normal as well as under altered internal (brain injury, brain diseases, aging) and altered external (microgravity, hypergravity, water immersion) conditions

Alex C. Garn (M) • Achievement motivation in physical education and physical activity contexts, approach and avoidance motivation, physical education teacher development

Jan M. Hondzinski (M) • Motor control and sensorimotor integration used during task performances by adults of varying age with and without neurological deficits

Brian A Irving (6A) • Short- and long-term metabolic and proteomic adaptions to exercise, dietary, medical interventions in young and old adults at risk for or with cardiometabolic diseases

Neil Johannsen (M) • Research focus is the study of physical activity and exercise training effects on chronic disease and special populations ranging from young lean adults to older adults, overweight/obese people, individuals with type 2 diabetes, and women with a history of breast cancer.

Maria Kosma (M) • Psychosocial determinants of physical activity for health and wellness among underserved populations (e.g., people with physical disabilities and older adults)

Nikita Kuznetsov (6A) • Functional role of repetition of movement variability with the goal of developing objective assessment methods and creating novel rehabilitation techniques. Develop virtual reality-based rehabilitation protocols focused on altering motor variability to improve optimal human performance and to assist with recovery of motor function after neurological trauma Dennis Landin (EM) • Musculoskeletal system actions and rehabilitation, clinical anatomy

Amelia M. Lee (EM) • The role of self-perceptions of ability in achievement behavior; beliefs, expectations, motivations and attitudes as mediators between teaching and learning; gender differences in achievement-related cognition, affect, and behavior Jean Michael Martinez (6A) • Organizational management settings within the areas of branding, internal marketing, and

organizational commitment. Additional research explores the benefits of intercollegiate athletics and sportsmanship education Arnold G. Nelson (M) • Physiological and biochemical adaptations of skeletal muscle and muscle metabolism to acute and chronic stressors (e.g., exercise, environment, dietary supplements) and how these adaptations can be manipulated to improve work and/or athletic performance

Adam Pfleegor (3P) • Ethical decision-making in sport management

Chad Seifried (M) • Use of historical methods to review the organizational and individual history of decisions/strategies of sport facility construction and management

Melinda A. Solmon (M) • Achievement motivation in physical activity, student goals and perceptions of teachers' actions in physical education

Guillaume Spielmann (6A) • Describe the immunological decrements of ageing and stress, and explore the mechanisms by which behavioral interventions (ie weight loss, physical activity) mitigate this response

Per Svensson (6A) • Organizational capacity of Sport for Development and Peace organizations

Arend W. A. Van Gemmert (M) • Mechanisms contributing to changes in the control of fine motor task performance due to stress, mental load, aging, neurological disease, and practice

Elizabeth Kipling Webster (6A) • Physical activity behaviors and motor skill competency in pediatric populations

## **Recent Faculty Publications**

A representative sample of recent faculty publications may be found at the School of Kinesiology website and various faculty pages linked to that location. See: School of Kinesiology faculty directory.

## Athletic Training, MSAT

#### (SATRN)

The Master of Science in Athletic Training major is built around 60 credit hours of required clinical classroom coursework to satisfy: the program's accreditation requirements set forth by the Commission on Accreditation of Athletic Training Education (CAATE); and for the student to meet eligibility requirements to sit for the National Athletic Trainers' Association Board of Certification examination and state licensure requirements to practice as an athletic trainer upon graduation.

The mission of the Master of Science in Athletic Training at Louisiana State University is to produce entry-level BOC Certified Athletic Trainers (ATC) who possess the qualities of cultural competency, clinical proficiency, loyalty, legal and ethical medical practice, professionalism, and accountability in their academic endeavors and career in athletic training.

Goals of the program are to:

- Prepare athletic training students to effectively communicate and build positive professional relationships with patients, administrators, other healthcare providers, and the public.
- Prepare athletic training students with well-rounded clinical and didactic experiences to meet the knowledge and skills requirements of the entry-level certified athletic trainer to effectively practice healthcare.
- Prepare athletic training students to utilize current and emerging technologies in patient education and patient care.
- Prepare athletic training students to integrate research into daily clinical practice through the acquisition, use, and practice of evidence-based medicine.
- Prepare athletic training students to provide culturally competent and efficient medical care to a diverse patient population.
- Develop the foundation of the athletic training students' professional philosophy that reflects primacy of the patient, professional and patient advocacy, and legal/ethical medical practice.

#### **Admission Requirements:**

Students applying to the Master of Science in Athletic Training must meet the following minimum application criteria:

- A bachelor's degree from a regionally accredited university
- Minimum of 3.00 GPA (on a 4.0 scale) in the applicant's last 60 hours of undergraduate coursework
- Minimum of 290 GRE score
- Meet the technical standards for admission or show potential for accomplished tasks. The technical standards are available on the program's website and made available in the ATCAS application system.
- Completion of minimum of 75 hours of observational professional experiences under a BOC credentialed athletic trainer and/or physician (at least 50 hours must be under the BOC credentialed athletic trainer)
- Acceptance to the LSU Graduate School
- Completion of on-campus interviews with program faculty/preceptors.
- Applicants must also submit a 1,000 word or less "Personal Statement" which provides a brief statement of the applicant's background and interests, a description of her/his experience and skill, and his/her longer-term professional and academic goals and how the program aligns with those goals. A well-formed personal statement should also describe the kinds of topics and/or experiences the applicant would like to explore while enrolled in the program. it is beneficial if applicants can draw a connection between her/his long-term professional interest area and those of the faculty in the School.

Applicants who are narrowly trained or who have taken a significant amount of work on a pass-fail basis or in ungraded courses may be required to submit scores on GRE Subject (Advanced) Tests before their applications can be considered.

#### **Prerequisite Coursework**

The applicant must possess a minimum of "B-" or better in the following college coursework:

- Human Anatomy and Physiology (2 semesters with lab)
- Physics (lab not required)
- Nutrition
- Exercise Physiology
- Biomechanics
- Chemistry (lab not required)
- Biology (lab not required)
- Statistics
- Psychology
- Medical Terminology
- Personal Health/Wellness

The student must possess a current certification (at the time of application) in Basic Life Support (BLS) for the Healthcare Providers/Emergency Responders.

Applicants are required to complete an application through the CAATE'S common application system (ATCAS) and LSU Graduate School.

Initial Application (LSU Graduate School)

 Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Secondary Application (ATCAS) administered by the Commission on Accreditation of Athletic Training Education (CAATE)

• Must complete a secondary application with ATCAS.

Applications for admission are received and evaluated by the School of Kinesiology. Applicants must adhere to the application deadlines established by the Graduate School and the School of Kinesiology. Students seeking admission must submit satisfactory credentials from previous study and other admission requirements set forth by the LSU Graduate School.

#### **Probationary Admission**

Applicants who fail to meet one or more of the requirements for regular admission may be admitted on probation, provided additional evidence of capacity to do satisfactory work is presented. Such evidence might include superior performance in a substantial amount of post baccalaureate work, high GRE scores (GMAT scores, when appropriate), and other achievements.

#### **Provisional Admission**

Provisional admission may be considered for applicants who appear to be admissible on the basis of the credentials submitted, but who are unable to supply all of the required official records prior to registration. Students admitted provisionally must submit complete and satisfactory records within 60 days (45 days in summer term) after the first day of class for the semester in which graduate study begins. If these credentials are not received by the date specified, or if they prove to be unsatisfactory, students will not be permitted to register for the following semester. Provisional admission does not guarantee subsequent regular admission.

#### **Financial Assistance**

Financial assistance is available to some students. Support may be available through the student's home department or other units in the form of research or teaching assistantships. A student should contact his or her home department for more information on available assistantship positions. To ensure consideration for financial aid, all application materials should be submitted in accordance with admission deadlines for the appropriate program.

#### **Non-Thesis**

No thesis is required.

#### **Comprehensive Examination**

- Students must successfully sit for the national credentialing examination for athletic trainers (administered by the Board of Certification, Inc.) and receive results documenting they passed the examination during the student's final academic semester prior to the deadlines to qualify for Spring graduation.
  - In order to graduate from LSU the student must pass the BOC examination. if a student does not pass the BOC examination then the student would be required to successfully complete a written comprehensive examination administered by the School of Kinesiology.
  - The student may be permitted to graduate in the Summer semester without a passing attempt on the BOC examination during his/her final Spring semester if the comprehensive examination is successfully completed prior to deadlines to graduate per the LSU Graduate School.
- The national credentialing examination is the requirement in 49 states to practice as an athletic trainer after graduation from a CAATE-accredited athletic training program.

### CURRICULUM REQUIREMENTS:

Total Minimum Hours: 60 Hours

### **Core Requirements**

- ATRN 7000 Emergency Medicine for the Athletic Trainer (6)
- ATRN 7001 Introduction to Athletic Training Clinical Practice (1)
- ATRN 7002 Protective Taping & Bracing (2)
- ATRN 7100 Athletic Training Clinical Practice I (3)
- ATRN 7101 Athletic Training Clinical Skills I (3)
- ATRN 7102 Foundations of Patient Assessment (3)
- ATRN 7103 Lower Extremity and Spine Orthopedic Evaluation (3)
- ATRN 7104 Clinical Diagnostic Procedures (3)
- ATRN 7200 Athletic Training Clinical Practice II (3)
- ATRN 7201 Upper Extremity, Cervical Spine, Thorax, Head Orthopedic Evaluation (3)
- ATRN 7202 Therapeutic Modalities (3)
- ATRN 7203 Therapeutic Rehabilitation (3)
- ATRN 7204 Primary Care Medicine (3)
- ATRN 7300 Athletic Training Clinical Practice III (3)
- ATRN 7400 Athletic Training Clinical Practice IV (3)
- ATRN 7401 Management of Nutritional & Psychosocial Conditions (3)
- ATRN 7402 Principles of Healthcare Administration in Athletic Training (3)
- ATRN 7403 Athletic Training Clinical Skills II (3)
- ATRN 7500 Athletic Training Clinical Practice V (3)
- ATRN 7501 Integrating Medical Research into Athletic Training (3)

### Other Information:

Graduation Requirements

- Students will complete all 60 hours of didactic coursework with a minimum GPA of 3.00.
- Students will complete at least 1200 hours of clinical experiences/education under the supervision/direction on an approved Preceptor.

### **Program Sequence**

### Year 1

### (36 credits)

### Summer (9 credits)

- ATRN 7000 Emergency Medicine for the Athletic Trainer (6)
- ATRN 7001 Introduction to Athletic Training Clinical Practice (1)
- ATRN 7002 Protective Taping & Bracing (2)

### Fall (12 credits)

- ATRN 7100 Athletic Training Clinical Practice I (3)
- ATRN 7101 Athletic Training Clinical Skills I (3)
- ATRN 7102 Foundations of Patient Assessment (3)
- ATRN 7103 Lower Extremity and Spine Orthopedic Evaluation (3)

### Spring (15 credits)

- ATRN 7200 Athletic Training Clinical Practice II (3)
- ATRN 7201 Upper Extremity, Cervical Spine, Thorax, Head Orthopedic Evaluation (3)
- ATRN 7202 Therapeutic Modalities (3)
- ATRN 7203 Therapeutic Rehabilitation (3)
- ATRN 7204 Primary Care Medicine (3)

### Year 2

### (24 credits)

### Summer (3 credits)

• ATRN 7300 Athletic Training Clinical Practice III (3)

### Fall (12 credits)

- ATRN 7400 Athletic Training Clinical Practice IV (3)
- ATRN 7401 Management of Nutritional & Psychosocial Conditions (3)
- ATRN 7402 Principles of Healthcare Administration in Athletic Training (3)
- ATRN 7403 Athletic Training Clinical Skills II (3)

### Spring (9 credits)

- ATRN 7501 Integrating Medical Research into Athletic Training (3)
- ATRN 7500 Athletic Training Clinical Practice V (3)
- ATRN 7104 Clinical Diagnostic Procedures (3)

## **Behavior Health Graduate Certificate**

#### (CBH)

The Behavior and Health Graduate Certificate enhances the preparation of professionals in a wide range of health care services, exercise promotion, rehabilitation programs, and other programs and services related to behavior and health. Health problems caused by poor lifestyle choices such as physical inactivity and poor nutritional choices have devastating consequences related to individual quality of life and also have a negative economic impact associated with the high cost of treating chronic health problems. The CBH certificate provides an educational opportunity for individuals in the community working in health promotion settings to update their knowledge and improve their professional practice in their workplace. Additionally, for currently enrolled students, the CBH certificate makes a credential available that documents their preparation in applied areas of changing health behavior and health promotion. The Graduate Certificate in Behavior and Health does not prepare students for licensure examinations or other certificates to provide counseling in any of the related fields and does not lead to professional credentials in nutrition, physical activity, rehabilitation programs, or counseling.

Courses in the CBH certificate focus on understanding problems related to behavior and health and to discover ways to mitigate their impact. The certificate requires completion of six courses (18 credit hours), with at least three courses at the 7000 level. Students take two courses (six credits) in each of the focus areas in the certification: Kinesiology, Nutrition, and Psychology/Counselor Education, selected from the course options listed in this table.

For additional information, please visit the departmental website. For questions, please contact the School of Kinesiology at 225-578-2036.

## Kinesiology, M.S.

#### (SKIN)

The school-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied. The degree program includes both thesis and non-thesis options. The thesis option requires 24 semester hours of graduate coursework and a research-based thesis for six semester hours (30 hours total). The non-thesis option requires 36 semester hours of graduate coursework with a maximum of six hours earned as independent study credit. The curricular requirements for both the thesis and non-thesis options include:

- at least 18 hours at the 7000 level or above
- a minimum core requirement of six credit hours in research methods and design
- a primary area consisting of a minimum of 12 credit hours in a specified field of study:

### Specialization

12 hours selected from:

### **Exercise Physiology**

- KIN 7505 Problems in Kinesiology (3)
- KIN 7530 Exercise Physiology (3)
- KIN 7535 Neuromuscular Aspects of Exercise (3)
- KIN 7537 Exercise and Environment (3)
- KIN 7550 Advanced Exercise Physiology (3)
- KIN 7536 Cardiovascular and Respiratory Function in Exercise (3)

### **Motor Behavior**

- KIN 4512 Lifespan Motor Development (3)
- KIN 4519 Cadaver Dissection (3)
- KIN 4571 Neuromotor Control of Human Movement (3)
- KIN 7508 Analysis of Human Movement (3)
- KIN 7510 Motor Learning (3)
- KIN 7512 Motor Control (3)
- KIN 7517 Advanced Topics in Motor Control (3)
- KIN 7526 Advanced Topics in Biomechanics (3)
- KIN 7532 Advanced Topics in Motor Learning (3)

### Pedagogy and Psychological Sciences

- KIN 7502 Curriculum Construction in Physical Education (3)
- KIN 7513 Seminar in Physical Education Professional Preparation (3)
- KIN 7514 Pedagogy in Physical Education (3)
- KIN 7515 Theories of Achievement Motivation in Physical Activity (3)
- KIN 7528 Sport Psychology (3)
- KIN 7601 Changing Health Behavior (3)
- KIN 7602 Social-Ecological Influences on Physical Activity and Health (3)
- KIN 7603 Stress Management and Emotional Health (3)

### Sport Management

- KIN 7511 Administrative Problems in Kinesiology (3)
- KIN 7516 Organizational Behavior and Development in Sport (3)
- KIN 7518 Social Issues in Sport (3)
- KIN 7519 Financial Issues in Sport (3)
- KIN 7524 Sport Law (3)
- KIN 7545 Economic Issues in Sports (3)

### Note:

Students in non-thesis programs of study must pass a written comprehensive final examination that will be given by the student's advisory committee and should be approximately three hours in length. For students in the thesis program, the final examination will be an oral examination with all the committee members present. The format and content of this examination will be determined by the advisor and committee members.

## Kinesiology, Ph.D.

### (PKIN)

The school-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

Seventy-five credit hours at the graduate level must be earned including a maximum of 12 credit hours for the dissertation. The curricular requirements include:

- At least 27 credit hours at the 7000 level or above, exclusive of any type of independent study
- A minimum core requirement of 12 credit hours in research design, methodology, and analysis (KIN 7900, EXST 7003, EXST 7013 or equivalents, and one research course specific to the area of specialization).
- A primary area consisting of a minimum of 15 credit hours in a specified field of study

### Specialization

15 hours selected from:

### **Exercise Physiology**

- KIN 7503 Dimensions of Aging (3)
- KIN 7530 Exercise Physiology (3)
- KIN 7535 Neuromuscular Aspects of Exercise (3)
- KIN 7537 Exercise and Environment (3)
- KIN 7550 Advanced Exercise Physiology (3)
- KIN 7536 Cardiovascular and Respiratory Function in Exercise (3)

### **Motor Behavior**

- KIN 4512 Lifespan Motor Development (3)
- KIN 4571 Neuromotor Control of Human Movement (3)
- KIN 7508 Analysis of Human Movement (3)
- KIN 7510 Motor Learning (3)
- KIN 7512 Motor Control (3)
- KIN 7517 Advanced Topics in Motor Control (3)
- KIN 7526 Advanced Topics in Biomechanics (3)
- KIN 7532 Advanced Topics in Motor Learning (3)
- KIN 7999 Seminar in Selected Topics in Kinesiology (1-3)

### Pedagogy and Psychological Sciences

- KIN 7502 Curriculum Construction in Physical Education (3)
- KIN 7513 Seminar in Physical Education Professional Preparation (3)
- KIN 7514 Pedagogy in Physical Education (3)
- KIN 7515 Theories of Achievement Motivation in Physical Activity (3)
- KIN 7528 Sport Psychology (3)
- KIN 7601 Changing Health Behavior (3)
- KIN 7602 Social-Ecological Influences on Physical Activity and Health (3)
- KIN 7603 Stress Management and Emotional Health (3)

### Sport Management

- KIN 7511 Administrative Problems in Kinesiology (3)
- KIN 7516 Organizational Behavior and Development in Sport (3)
- KIN 7518 Social Issues in Sport (3)
- KIN 7519 Financial Issues in Sport (3)
- KIN 7524 Sport Law (3)
- KIN 7545 Economic Issues in Sports (3)

### Note:

Each PhD student must complete a milestone examination within two years of admission to the School of Kinesiology. This examination serves as the student's qualifying exam for continuing in the PhD program. The exam consists of carrying out a research project that must be approved by the student's school-level academic course plan committee. At or near the end of the completion of a PhD student's required course work, the student should schedule the general examination. The general examination consists of two parts: one written, the other oral. The written portion consists of writing a comprehensive review paper in which the student must demonstrate mastery of content knowledge in their chosen specialization, the ability to synthesize and critically evaluate current literature, and the ability to formulate research questions and/or hypotheses. The oral portion is typically a defense of the review paper, although the oral examination need not be limited to topics related to the paper. Upon successful completion of the general examination, the PhD candidate moves forward with the dissertation to demonstrate the ability to design and conduct independent and original research. The final examination will be an oral examination primarily concerned with the dissertation, although the committee may opt to extend the subject matter.

## Landscape Architecture (Graduate Program)

For information regarding the UNDERGRADUATE PROGRAM, click here.

## **Program Overview**

With a tradition of more than 60 years of preparing students for careers in landscape architecture through both undergraduate and graduate studies, the Robert Reich School of Landscape Architecture is one of the oldest and strongest programs in the nation. The challenging field of landscape architecture incorporates studies in art and design, natural sciences, and social and cultural disciplines, together with technological advances in resource analysis, computer-aided representation, and modeling to address issues at scales ranging from intimate to global. At the profession's heart are issues relating to environmental sustainability, human stewardship of natural resources, and the quality of life in both urban and rural surroundings.

At both the undergraduate and graduate levels, the curriculum uses natural and man-made conditions in the Lower Mississippi River Valley region as laboratories to study the roles of nature, culture, and humans in shaping the built environment and providing invaluable resources and educational opportunities within the larger context of the southern United States, Central and South America, and the Caribbean. Investigations include how and why landscapes evolve and endeavor to define the designer's role in combining natural systems, environments, physical interventions, and human uses. Course formats include design studios, seminars, lectures, field studies, and independent work.

## Administration

Mark Boyer, Director

Mark Boyer, Graduate Program Coordinator

TELEPHONE225-578-1434FAX225-578-1445WEBSITElandscape.lsu.edu

## Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Students are admitted to the program based on evaluation of the following:

- Academic qualifications
- Portfolio of creative work (a single digital PDF file; up to 24 pages; maximum size 8 1/2" x 11") including drawings, sketches, photography, past academic/professional design work; portfolio required of students with design degrees; highly recommended for others, international students are strongly advised to include their "graduation project" in their portfolio of work;
- Statement of interest (one-page maximum) that discusses your motivation for application;
- Video essay (three minute) that further states your motivation and reflects your creative interest in the field of landscape architecture;
- Letters of reference three addressing your capacity to succeed in a rigorous studio-oriented design curriculum; letters should be brief and reflect the writer's specific experience with regard to your capacity for graduate school;
- Resumé (up to two pages) of academic and work experiences;
- GRE or GMAT scores (Graduate School standard) and college transcripts (not required to send to RRSLA, but required for the Graduate School);
- TOEFL scores for international students (Graduate School standard) and college transcripts (<u>not</u> required to send to RRSLA, but <u>required</u> for the Graduate School);
- Furthur information is available for International applicants.

Prospective students are encouraged to visit the school and its facilities, meet students, and discuss the program with faculty. An open house is held in late fall and mid-spring during studio reviews, but those interested in the program may make arrangements for a visit at any other time. Students are admitted only for the fall semester. The school accepts applications through **January 16** for admission the following fall semester. Admissions decisions will be made in March. Prospective students should first complete admissions requirements through LSU's Graduate School; official transcripts and test scores should be sent to the Graduate School. Portfolio materials, resumé and any questions about application procedures should be addressed to the graduate coordinator.

## **Financial Assistance**

Graduate fellowships and teaching and research assistantships are awarded on a competitive basis based on the student's application materials. There is no application form for the School's fellowships and assistantships, but interested applicants should indicate such interest in their application and statement of interest. Graduate students are also eligible for school scholarships and financial assistance after their first year.

## **Graduate Faculty**

(check current faculty listings by department here)

Kevin Benham (M) • Landscape phenomena and temporal and ephemeral installations
Mark E. Boyer (M) • Construction technologies, Low Impact Development, green roofs, bioretention
Max Z. Conrad (M) • Urban design, regional planning, planting design, travel
Van L. Cox (EM) • Site design; graphics; professional practice and other legal aspects of landscape architecture
Lake Douglas (M) • Garden history; arts administration and public art planning; nonprofit management and public
administration; freelance writing
Charles F. Fryling Jr (M) • Environmental planning, ecology
Brendan Harmon (M) • Geospatial modeling, tangible interaction, digital fabrication, and virtual reality
Kevin Risk (M) • Cultural Landscapes, history and site design
Nicholas Serrano (M) • History of landscape architecture
Bruce G. Sharky (M) • Professional practice, site grading and design, Latin American design studies
Suzanne L. Turner (EM) • History, historic preservation, site design

## Landscape Architecture, M.L.A.

#### (MLA)

The Master of Landscape Architecture (MLA) degree is a three-year professional degree open to applicants with undergraduate qualifications in any discipline. Those with accredited degrees in architecture or landscape architecture are eligible for entrance into the program's second year, following consultation with the graduate coordinator and review of qualifications and portfolio. Typically, this course of study requires 36 semester hours of graduate-level work. Those entering the three-year program will generally take up to 36 additional hours of preparation and background courses and 18 semester hours of elective courses. A student's past academic and work experiences are carefully evaluated and course sequences are designed to take advantage of these previous experiences.

# Leadership & Human Resource Development (Graduate Program)

For information regarding the UNDERGRADUATE PROGRAM, click here.

## **Program Overview**

A central theme that stitches the diverse faculty together in the School of Leadership & Human Resource Development is a shared, collective ambition to contribute, through our teaching, research and service, to the positive change and development sought by organizations and communities in response to the forces in today's globalized world. Therefore, the mission of the School is to enhance the development of individuals, organizations and workforce systems through research that advances the creation and application of new knowledge; innovative teaching that prepares scholars, researchers, and professionals to meet the organization development and human capital needs of a dynamic, interconnected, global society; and service and outreach activities that connect the School with the local, national, and international community.

Our vision is to be recognized as innovative leaders in human resource and organization development whose teaching, scholarship, research, and outreach create positive change in people, organizations, and communities globally.

#### We value:

Student-Centered, Applied Learning

• We provide an applied, student-centered learning experience that builds in our graduates the knowledge, skills, and ways of thinking needed to become global citizens, leaders, and positive change agents.

Diversity and Inclusivity

• We encourage diversity and inclusiveness through civility, the free exchange of ideas, an appreciation of individual distinctiveness, and respect for multiple perspectives.

Strong Science-Practice Focus

• We believe a strong theory-research-practice linkage is critical in an applied field and realize this through effective collaboration, the provision of evidence-based tools and interventions, and ongoing local and global engagement.

Excellence

• We strive for a global reputation of excellence realized through rigorous, cutting-edge research, adherence to the highest ethical standards in teaching, research and practice, ongoing professional development of all members of our learning community, and the creation of an exemplary, dynamic curriculum that meets the needs of our stakeholders.

The graduate programs in our School include a stable of courses that, in very fundamental ways, focus on the development of human capacity in organizations and communities, planned change in organizational systems, and the systemic nature of planned change. Our courses address the diagnostic, analytical, and evaluative capabilities that are key to initiating and sustaining change in organizational systems; the role of leadership and change agents; and the role of multi-level learning in change. The school has four primary areas of focus: human resource development, organization development, workforce development, and leadership development.

Our courses and programs are taught by a diverse, multidisciplinary, and award-winning faculty. They bring a breadth of research interests and a wealth of applied experience to the classroom. Their goal is to make the learning experience both challenging and provocative, and to prepare our students to be the leaders of positive change.

The School, recognized as one of the top 20 programs in leadership and human resource development in the U.S., maintains membership in the distinguished University Council for Workforce and Human Resource Education. The School has the only comprehensive university leadership and human resource development program in Louisiana.

## Administration

Reid Bates, Director

 TELEPHONE
 225-578-5748

FAX 225-578-5755

WEBSITE https://lsu.edu/chse/slhrd/programs/graduate/index.php

## Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Students seeking admission to this school must submit satisfactory credentials from previous study, acceptable GRE or GMAT scores, resume or C.V., personal statement, and three letters of recommendation. International students whose native language is not English must also submit an acceptable TOEFL, IELTS, or PTE score.

The admission policies of the School provide for an alternative to the GRE/GMAT for students applying to the M.S. program who meet the following criteria:

1. A minimum of a 3.0 GPA in their last 60 hours of undergraduate coursework.

2. A minimum of a 3.0 GPA on all previous graduate coursework.

3. Three letters of acceptable recommendations.

4. Three years of demonstrated successful full-time professional work experience as evidenced by a resume.

5. Successful completion of a criterion-based essay. For the essay, students are asked to describe, in 1,000 words or less, at least three specific examples from their professional work experience that demonstrate their:

- Motivation to succeed as a professional.
- Ability to persevere in the face of demanding professional challenges.
- Intellectual ability to master challenging and difficult subject matter.

Only applicants that meet admission requirements and provide well-written and acceptable answers to these questions will be allowed to utilize the GRE/GMAT alternative.

Admission to the PhD program requires, in addition to a minimum of a 3.0 GPA in the last 60 hours of undergraduate coursework and a minimum of a 3.0 GPA on all previous graduate coursework, acceptable GRE or GMAT scores and successful completion of a master's degree. Each student must submit at least three letters of reference and evidence of appropriate professional experience. Applicants must also submit a 1,000 word or less "Personal Statement" which provides a brief statement of the applicant's background and interests, a description of her/his research experience and skill, and his/her longer-term professional and academic goals and how the program aligns with those goals. A well-formed personal statement should also describe the kinds of research topics and/or methods the applicant would like to explore during the Ph.D. program. It is beneficial if applicants can draw a connection between her/his research topics of interest and those of the faculty in the School.

Required Application Materials for the Ph.D. Program

- Resume or C.V.
- Three letters of recommendation
- GRE Scores
- Undergraduate transcripts
- Post-baccalaureate transcripts
- Graduate transcripts
- Personal statement expressing your interest in the program

### **Financial Assistance**

Graduate assistantships in the school are awarded on a competitive basis to qualified MS and PhD students. All students on assistantship are responsible for a portion of student health care costs, vehicle registration fee, graduation fees, and other fees.

Students who have graduate assistantships are expected to maintain a 3.0 GPA ("A" = 4.0) must register for at least nine semester hours in the fall and spring and six hours in the summer. Most assistantships require the student to be involved in research being conducted in the school; however, some teaching assistantships are available.

### **Graduate Faculty**

(check current faculty listings by department here)

Reid A. Bates (M) • Organization development, human resource development, organizational diagnosis, learning transfer, human resources for health, training effectiveness, program evaluation, work analysis, instrument development Oliver S. Crocco (6A) • Learning and organization development and change, workforce competence, human resource

development in Southeast Asia, program evaluation

John Paul Hatala (3P) • Social capital in the workplace, human resource and organization development, social network analysis, career development

Edward Gibbons • Small business strategic planning, change management, workforce and organization development, executive coaching, leadership, competency-based development planning, career readiness

Shinhee Jeong (6A) • Knowledge sharing and creation, informal learning in the workplace, social capital in the workplace, leadership effectiveness, quantitative research methods

Tyree Mitchell (6A) • Leadership and antecedents of leadership behaviors, work team effectiveness, work motivation, negotiation Sunyoung Park (6A) • Organizational culture, learning in the workplace, knowledge sharing, the integration of human resource development, human performance technology, and instructional technology

Erin Richard (6A) • Industrial/organizational psychology, leader emotion management, emotional skills in leadership and teams, emotional labor, affect and individual differences in work motivation

Tracey Rizzuto (M) • Industrial/organizational psychology, technology and the development of social capital, power and influence in social networks, managing change in the workplace

Petra Robinson (M) • Issues of race, class, gender, and color, colorism, critical non-normative literacies, lifelong learning and professional development, qualitative research methods, adult learning, social justice in education and the workplace

### **Degree Programs**

The school offers several program options at the graduate level including MS, PhD, and graduate certificate programs.

### Leadership and Human Resource Development, M.S.

(SLHRD)

Change is the new normal for all types of organizations. For-profit Fortune 500 companies, state and national government organizations, non-profit community organizations, and civil society organizations are all increasingly challenged to respond to changes in social values and adapt to dynamic social, ecological, economic, technological factors. As a result, there is a large and growing demand for professionals who can facilitate and lead positive change.

Our program leading to an M.S. degree in Leadership and Human Resource Development is an applied program designed to develop in students the leadership, planning, analytical, problem solving, and change management capabilities that today's globalized organizations need to be successful. The knowledge and skills graduates acquire enable them to:

- Develop and leverage an organization's human capital resources
- Collaborate with leaders, managers, and employees to identify and analyze performance issues
- Develop and implement strategies to address high priority performance issues
- Create enabling environments to maximize the potential for change
- Monitor and evaluate the outcomes of strategies and interventions
- Use cutting-edge evidence-based practice to foster change
- Help organizations realize their strategic goals and objectives

These capabilities are highly transferable and applicable in a wide range of positions and settings. For example, our M.S. graduates are employed as Organization Development specialists, Chief Learning Officers, Human Resource Directors, International consultants, Training Directors, Human Resource Development consultants, and others. They work in a wide range of organizations and apply their leadership, change and development skills in the health sector, education, manufacturing and business, IT, community development and other non-profit organizations, and hospitality and tourism.

Our M.S. degree is designed for:

- Human resource, organization development, training and development, and performance improvement professionals who increasingly deal with internal change initiatives
- Organizational leaders, including government and non-profit professionals, who want to be more effective at supporting change in their organizations
- HR professionals transitioning to new roles, who want to advance, or who want to move into the exciting field of organization change and development
- Consultants looking to expand their skills and credentials
- Individuals interested in building the knowledge and skills to enable them to move into consulting

Our courses are designed and taught by a diverse, multidisciplinary, and award-winning faculty who are active members of a world-class university. They bring a breadth of research interests and a wealth of applied experience to the classroom. Their goal is to make the learning experience both challenging and provocative and to prepare our students to be the leaders of positive change.

The **On-Campus MS program** integrates the teaching and learning advantages of one-to-one, direct student-professor interaction with the efficiencies and flexibility of web-based learning. Courses integrate web-based learning activities with face-to-face coursework in ways that pedagogically compliment, reinforce, and elaborate on one another while maintaining a high level of in-person and individual interaction between student and professor. This program follows the more traditional university format of 15-week semesters with courses typically meeting one night per week. The **100% Online MS program** in Leadership & Human Resource Development is designed for individuals who want a high quality degree from a major tier-1 U.S. university but also need the flexibility offered by online course delivery. The online courses are offered year-round in 7-week modules, which makes it possible for students to complete the MS program in one year with courses taken Spring, Summer, and Fall

Both the online and on-campus programs are open to students with undergraduate degrees in any field. We have rolling admissions so students can enter their program of choice at any time of the year.

#### Workforce Development

The Master of Science of Leadership and Human Resource Development with a concentration in Workforce Development is an online program designed to prepare students to meet the challenges of workforce globalization, talent development, and changing technology through a holistic approach to human resource strategy. Students will expand their knowledge as workforce development professionals equipped for leadership roles in a wide range of fields including business, healthcare, manufacturing, and community and economic development, as well as in government and nonprofit sectors. Graduates will develop the skills needed to:

- Implement workforce development to support strategic change.
- Diagnose workforce skill and competency needs.
- Create effective talent development processes.
- Manage the change process.
- Monitor and evaluate performance improvement.

The program is appropriate for students with any type of bachelor's degree as well as people currently employed who are seeking to expand their skills and credentials, transition to new roles, or more effectively deal with talent development and organizational change.

The 100% online program can be completed in as little as one year.

#### Semester 1

- LHRD 7110 Team & Group Dynamics (3)
- LHRD 7910 Human Resource Analytics (3)

#### **Total Semester Hours: 6**

#### Semester 2

- LHRD 7171 Instructional Design for Human Resource Development (3)
- LHRD 7001 Principles of Workforce Development (3)

#### **Total Semester Hours: 6**

#### Semester 3

- LHRD 7900 Applied Research Methods and Analysis in Organizations (3)
- LHRD 7271 Leading Learning in Human Resource Development (3)

#### **Total Semester Hours: 6**

#### Semester 4

- LHRD Elective (3)
- LHRD 7005 Workforce Planning and Analysis (3)

#### Total Semester Hours: 6

#### Semester 5

- LHRD 7571 Performance and Needs Analysis in Human Resources Development (3)
- LHRD 7577 Training and Development in Organizations (3)

#### **Total Semester Hours: 6**

#### Semester 6

- LHRD 7602 Program Evaluation Design I (3)
- LHRD Elective (3)

Total Semester Hours: 6

36 Total Program Hours

#### Leadership and Human Resource Development, Ph.D.

(PLHRD)

The Leadership and Human Resource Development Ph.D. offers a research-oriented, broad-based program of study that can be modified to fit student interests. The Ph.D. degree represents a rigorous extension of graduate work beyond the master's level. The program is strongly grounded in leadership, human resource and organization development, and change management theory. The curriculum is focused on foundational and advanced theory and evidence-based practice to ensure relevance in today's challenging organizational environments. Because human resource, organization and leadership development are applied fields, the goal of the Ph.D. program is to develop highly skilled and innovative researchers and scholar-practitioners. This effectively prepares students for a wide range of careers ranging from academicians at leading educational institutions, professional consultants, human resource and organization development leaders, and other careers in which advanced research, analytical, and organization change capabilities are required. Recent alumni are employed as tenured or tenure-track faculty, organizational change agents, workforce development consultants, and human resource development/training and development directors.

Students in the Leadership and Human Resource Development (LHRD) Ph.D. program are, prior to graduation, expected to:

- Achieve a broad understanding of the scholarly literature cross-cutting human resource development, leadership, and organizational development.
- Develop and communicate logical and coherent scholarly arguments through the critique of theory, research, and practice.
- Synthesize ideas and integrate theory, research findings, and practice from past and current publications.
- Demonstrate graduate-level writing skills including the appropriate use of primary and secondary resources, scholarly language, and the logical flow and sequencing of ideas.
- Understand diverse cultural world views and epistemologies and the social justice implications of knowledge, theory and practice.
- Distinguish different research methods and demonstrate foundational knowledge of social science analytics and a depth of knowledge in one or more quantitative or qualitative methods consistent with the student's dissertation research.
- Indicate the strengths and weaknesses of various research strategies and be able to connect various research methods to different research objectives and questions.
- Connect the results of dissertation research to other relevant research and theory.
- Reflect on and develop applied practice skills in light of relevant theory and research.

Faculty teaching in the LHRD program have wide and varied research interests including topics such as organizational leadership, multilevel analysis and social network modeling of person-environment interactions in organizations; responses to large-scale organizational change; workforce aging; change reactions to workplace disasters; training effectiveness and learning transfer in the workplace; talent development systems; program monitoring and evaluation; organizational culture and workplace learning; knowledge sharing; instructional technology; colorism and diversity in organizations; and social justice in education across institutional types.

Doctoral training involves close collaboration with faculty members on shared research interests, coursework in human resource development, organization development and change, leadership and leadership development, and independent research activities. Students are encouraged to co-design their program of study in consultation with a faculty mentor in ways that are personally meaningful and which optimize student goals. For the dissertation, students collaborate with a faculty mentor to co-design a study that is often groundbreaking and which advances knowledge and science in a particular area of interest.

The Ph.D. program consists of a minimum of 90 semester hours above the bachelor's degree. Acceptance into the program is subject to the approval of the admissions committee. Coursework is divided into a required content core, a research block, and any minors selected by the student. Final course work requirements are typically designed in line with individual student interests and are determined by the student in collaboration with his or her graduate advisory committee. The process leading to the doctoral degree includes completion of all coursework, successful completion of a general examination that contains both written and oral components, completion of the dissertation, and the final examination/dissertation defense.

### Workforce Development Graduate Certificate

(CWFD)

This graduate certificate program approaches workforce development as a holistic human resource strategy whose purpose is to develop people to meet the needs of for-profit, not-for-profit, and governmental organizations in Louisiana and the region. Graduates will develop the skills necessary to approach workforce development strategically, analyze skill and competency needs in the workforce, and implement workforce development processes that enable organizations to develop employees in ways that meet the current and future challenges associated with global competition, talent development, changing technology, and other pressures.

The following courses are required to earn the certificate:

- LHRD 7001 Principles of Workforce Development (3)
- LHRD 7005 Workforce Planning and Analysis (3)
- LHRD 7571 Performance and Needs Analysis in Human Resources Development (3)
- LHRD 7602 Program Evaluation Design I (3)
- LHRD 7171 Instructional Design for Human Resource Development (3)
- LHRD 7271 Leading Learning in Human Resource Development (3)

For further information, please contact the School of Leadership & Human Resource Development at 225-578-5748 or mturnage@lsu.edu.

# **Interdepartmental Program in Liberal Arts (Graduate Program)**

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

The Master of Arts in the Liberal Arts (MALA) program is an alternative to traditional graduate studies in a single discipline, enabling the student to pursue courses in a wide range of disciplines and tailor a curriculum to his or her own intellectual interests. The MALA program emphasizes study for the sake of personal enrichment and intellectual growth by fostering the curiosity, understanding, and research skills that will sustain a lifetime of learning. The MALA program is especially suited to accommodate college educated adults who wish to return to part-time academic studies in pursuit of professional advancement in already established careers.

# Administration

Michael Pasquier, Director

WEBSITE	www.lsu.edu/mala
FAX	225-578-4897
TELEPHONE	225-578-2271

# Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed

to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

The MALA program accepts new students for fall, spring, and summer semesters. Applications are evaluated on a rolling basis, as they are submitted. Applicants must, however, adhere to the application deadlines established by the Graduate School.

Students seeking admission must submit satisfactory credentials from previous study and acceptable GRE scores. In general, expectations of previous work include an undergraduate GPA of 3.00 or above, and GRE scores (combined verbal and quantitative) of at least 295. International students whose native language is not English must also submit an acceptable TOEFL, IELTS, or PTE score.

# **Graduate Faculty**

The graduate faculty for the MALA is drawn from departments across the university. Contact the director for specific information.

### Liberal Arts, M.A.L.A.

#### (MALA)

The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirement for graduate committees is satisfied.

The Master of Arts in the Liberal Arts offers both a thesis track and a non-thesis track.

#### Thesis track

Each student must earn at least 24 hours of graduate course credit, earn at least six hours of thesis credit (LIBA 8000) for the thesis project, and defend a master's thesis. The curricular requirements include:

- At least 24 hours of graduate coursework, a minimum of 12 of which must be at the 7000 level or above, and must include LIBA 7000 and LIBA 7900. No more than 12 hours of graduate coursework may be taken at the 4000-level.
- At least six additional hours of LIBA 8000 (thesis credit)
- A maximum of 12 credits of coursework from any one department

Non-Thesis track:

Each student must earn at least 36 hours of graduate course credit and sit for an exit examination. The exit examination will include the student's defense of a portfolio of three major essays or projects completed during his or her time in the MALA program. The student should also compose a short essay (about 5-7 pages) drawing connections among the items in the portfolio and reflecting on the larger intellectual questions encountered during his or her time in the program. The curricular requirements include:

- At least 36 hours of graduate coursework, a minimum of 18 of which must be at the 7000 level or above, and must include LIBA 7000 and LIBA 7900. No more than 18 hours of graduate coursework may be taken at the 4000-level.
- A maximum of 18 credits of coursework from any one department

# Library & Information Science (Graduate Program)

# **Program Overview**

The School of Library & Information Science (SLIS) offers the only Master of Library & Information Science (MLIS) degree in Louisiana. In 1926, LSU began offering summer courses in library science, and in 1931 the Board of Supervisors established The Graduate School of Library Science. The name was changed to the School of Library & Information Science (SLIS) in 1981. LSU's departmental-level academic course plan in library and information science has been continuously accredited by the appropriate accrediting authority throughout its history. The Master of Library & Information Science degree program is currently accredited by the American Library Association.

Many careers are open to those who earn the master's degree in library and information science (MLIS).

SLIS graduates are currently employed as librarians, archivists, project specialists, software developers, webmasters, directors of knowledge management, information architects, web analysts, research coordinators, and document controllers. The organizations in which our graduates are employed include public, school and academic libraries; presidential libraries and museums; private corporations; not-for-profit organizations; and state and federal government departments and offices.

### Administration

Carol Barry, Interim Director

TELEPHONE	225-578-3158
FAX	225-578-4581
WEBSITE	lsu.edu/SLIS

### Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Students are admitted twice a year. The deadline for admission to the Fall semester is May 15th. The deadline for admission to the Spring semester is October 15.

Students seeking admission must submit satisfactory credentials from previous study, including a grade-point average of at least 3.00 ("A"= 4) for the last two years of undergraduate work taken and 3.00 for all graduate level work previously taken, based on all work for which a grade is given. Students must also have a professional resumé. International students whose native language is not English must also submit an acceptable TOEFL, IELTS, or PTE score.

Students applying to the MLIS program may have the GRE/GMAT waived if they meet the following criteria:

- 1. A minimum of a 3.0 GPA in their last 60 hours of undergraduate coursework
- 2. A minimum of a 3.0 GPA on all previous graduate coursework
- 3. An essay of at least 1000 words that answers these three questions :
  - Why do you want to earn an MLIS?
  - What are your career goals and objectives?
  - o How will an MLIS from LSU SLIS help you to achieve these goals?

Applicants who do not meet these criteria must also submit GRE scores.

Provisional admission may be considered for an applicant who appears to be admissible on the basis of credentials submitted, but who is unable to supply all of the required official records prior to registration. A student admitted provisionally must submit complete and satisfactory records within 30 days after the first day of registration. If these credentials are not received by the date

specified or if they prove to be unsatisfactory, the student will not be permitted to register for other courses. Provisional admission does not guarantee subsequent regular admission.

Probationary admission may be recommended for an applicant who fails to meet the necessary admission requirements but who is, nevertheless, judged by the director and the faculty to show promise for successful graduate work. Probationary admission requires that students maintain a 3.0 or better GPA for nine consecutive hours in order to convert to regular admission. Students who fail to maintain this average will not be permitted to register for additional courses. Applicants who have an unsatisfactory undergraduate record who have completed a minimum of nine hours of graduate coursework with at least a 3.33 graduate GPA and who have acceptable GRE scores will be considered for admission on probation.

# **Financial Assistance**

See Financial Aid & Scholarships for details about scholarships and assistantships for MLIS students, including application forms and deadlines.

# **Graduate Faculty**

(check current faculty listings by department here)

Carol L. Barry (6A) • Information retrieval, relevance, library automation, abstracting and indexing Edward Albert Benoit III (6A) • Archival access, participatory & community archives, archival education, and digital collections Bert Boyce (EM) Michael Carpenter (EM) Alma Dawson (EM) Tao Jin (M) • Competitive intelligence, knowledge management Boryung Ju (M) • Human-computer interaction, knowledge management Patsy Perritt (EM) Suzanne Stauffer (M) • Print culture, history of children's services in public libraries and school libraries, librarianship as a profession, education for librarianship, gender issues in librarianship Jamene Brenton Stewart (6A) • Cataloging Yejun Wu (M) • Information retrieval systems, digital libraries, knowledge organization Seungwon Yang (6A) • Information archiving, analysis and visualization; digital libraries and information systems; information retrieval

#### **Archival Studies Graduate Certificate**

#### (CARST)

#### About the Program

Archivists systematically identify, select, protect, organize, describe, preserve, and make available to users archival materials that is, society's records and documents broadly defined, regardless of form or medium. Archivists preserve and transmit our cultural and social heritage, protect the legal rights of individuals and institutions, and aid citizens in holding their governments and other organizations accountable.

The Graduate Certificate in Archival Studies (GCAS) is designed to give students a solid grounding in the core knowledge of the archival profession. The curriculum meets the Society of American Archivists (SAA) Guidelines for a Graduate Program in Archival Studies (GPAS), ensuring that students will be competitive for jobs in a range of institutions possessing archival collections. Specifically, graduates will meet the following learning objectives:

- Demonstrate an understanding of archival theory, practice, methodology, history and scholarship.
- Demonstrate critical thinking and decision-making skills related to all forms of records in the context of business, government, public needs, scientific research, or the protection of cultural heritage.
- Understand the ethical and legal dimensions of archival work, including professional and social responsibilities for serving diverse groups and the public good.

• Ability to manage and preserve authentic and trustworthy records, as well as relevant materials, regardless of format. This is the only archival studies program in Louisiana, outside of the Masters in Library & Information Science (MLIS).

This is an entirely online certificate.

### **Student Profile**

The certificate program is designed for individuals who already possess a graduate degree or are currently pursuing a graduate degree, and wish to pursue an archival career. Students who complete the certificate will be qualified to take the Academy of Certified Archivists (ACA) Certification Exam for full or provisional certification.

# **Course Requirements**

Two required courses (6 hours):

- LIS 7408 Introduction to Archival Theory, Principles & Practice
- LIS 7704 Archival Arrangement & Description

Complete one of the following (3 hours):

- LIS 7504 Preservation Management of Physical Records
- LIS 7505 Introduction to Digital Curation
- LIS 7506 Preservation and Digitization of Audiovisual Materials

Complete two of the following electives (6 hours):

- LIS 7410 Digital Libraries
- LIS 7504 Preservation Management of Physical Records
- LIS 7505 Introduction to Digital Curation
- LIS 7506 Preservation and Digitization of Audiovisual Materials
- LIS 7510 Website Design and Management
- LIS 7604 Principles of Records Management
- LIS 7702 Seminar in Advanced Archival Appraisal
- LIS 7705 Introduction to Museum Management
- LIS 7900 Internship in Library & Information Science
- LIS 7909 Directed Independent Study
- LIS 7808 Special Topics in Library & Information Science (when appropriate)

### Admission

Admission to the certificate program requires a previous graduate degree –OR— concurrent enrollment in a graduate degree program. Applicants must also meet the requirements for admission listed for the Master's of Library & Information Science Program. Students should apply through the LSU Graduate School.

For information on graduate tuition and fees, see Office of Budget and Planning website. Fee payment deadlines are published in the Schedule Book found on the Office of the University Registrar website.

# Contact

Dr. Edward Benoit, III

225-578-1469

ebenoit@lsu.edu

### Library & Information Science, M.L.I.S.

#### (MLIS)

Students complete the degree online.

All students take a common core of courses:

- LIS 7000 Information and Society (3)
- LIS 7004 Management of Information Organizations (3)
- LIS 7008 Information Technologies and Systems (3)
- LIS 7009 Understanding Research (3)
- LIS 7010 Organization of Information (3)
- LIS 7011 Information Needs and Information Seeking (3)

In consultation with their advisors, students will select additional elective courses to complete their degree requirements.

All MLIS students must meet the following degree requirements:

- satisfactory completion of a minimum of 36 semester hours (18 hours of core courses, and 18 hours of elective courses);
- completion of the degree program in five years.

The MLIS is a non-thesis degree. Students must complete all core courses with a "B" or better and maintain a minimum GPA of 3.0 in all of their coursework in the program to qualify for graduation.

# Joint Degree Program in History (MA) and the School of Library & Information Science (MLIS)

The department, in conjunction with the School of Library & Information Science, also offers a joint degree program in which a student can earn a Master of Arts degree in history and a Master of Library Science & Information degree simultaneously with the completion of 60 hours. A separate application to the School of Library & Information Science is necessary.

The basic requirements for the joint degree program are the same for the regular non-thesis MA program in the Department of History and the MLIS program in the School of Library & Information Science. The joint degree program, however, has been designed to allow the student to complete the 36 credit hours for the MA and the 36 credit hours of the MLIS by completing a total of only 60 hours.

Elective courses in the School of Library & Information Science eligible for credit for the history MA degree: Any two threehour graduate level courses focused on history or archives management. Elective courses in the Department of History eligible for credit for the MLIS degree: Any two three-hour graduate courses at the 7000-level in the Department of History.

#### **Records and Information Management Graduate Certificate**

#### (CRIM)

The Graduate Certificate in Records and Information Management is designed to provide an immersive experience for students who want to pursue a corporate or government career as a Records Manager, Information Manager, Information Governance Officer, or equivalence. Records and Information Management involves the administration and management of all business records throughout their life cycle. It is the systematic analysis and control of recorded information associated with an organization's business activities.

Students admitted into this program will be required to complete the following three core courses:

- LIS 7604 Principles of Records Management (3)
- LIS 7808 Special Topics in Library & Information Science (1-3) Principles of Information Governance
- LIS 7909 Directed Independent Study (1-3)

In addition, students must complete two courses from the following:

- LIS 7505 Introduction to Digital Curation (3)
- LIS 7508 Management of Knowledge-Based Assets in Organizations (3)
- LIS 7808 Special Topics in Library & Information Science (1-3) E-Discovery
- LIS 7808 Special Topics in Library & Information Science (1-3) Information Architecture

For further information, please contact the School of Library & Information Sciences at 225-578-4581 or slis@lsu.edu.

#### School Librarianship Graduate Certificate

#### (CSLIB)

The Graduate Certificate in School Librarianship is available to certified teachers who desire add-on certification in School Librarianship only. Applicants must meet the same requirements for admission as students applying to the MLIS program. In accordance with Louisiana State Department of Education requirements, the certificate will be awarded on completion of 18 hours selected from the courses listed on the departmental website.

Students admitted into this program must complete 18 hours selected from the following courses:

#### **Category 1**

Elementary and/or Secondary School Library Materials: 9 semester hours

Students must take LIS 7002 Information Resources

And two courses selected from:

LIS 7101 Literature and Services for Children

LIS 7102 Literature and Services for Teens

LIS 7104 Non-Fiction for Children and Teens

LIS 7105 Graphic Novels in Libraries

LIS 7800 The Art and Practice of Library Storytelling

LIS 7808 Special Topics in Library & Information Science when the topic relates to elementary and/or secondary school library materials (e.g., Science Fiction and Fantasy in Libraries).

#### **Category 2**

Organization, Administration, and Interpretation of Elementary and/or Secondary

School Library Service: 6 semester hours

Students must take LIS 7400 School Library Management

And either:

LIS 7010 Organization of Information (recommended) OR

LIS 7608 Introduction to Cataloging and Classification

#### Category 3

Elementary and/or Secondary School Library Practice: Three semester hours:

Students who will be applying for add-on certification in Louisiana must take LIS 7900 Internship in Library & Information Science OR substitute three years or more of successful experience as a school librarian.

Students who will have three years or more of successful experience as a school librarian by the time they complete the certificate may substitute an additional course from either Category 1 or Category 2 for the Internship in order to earn the required 18 hours.

Students who will not be applying for add-on certification in Louisiana may substitute an additional course from either Category 1 or Category 2 for the Internship in order to earn the required 18 hours.

For further information, contact 225-578-3158 or slis@lsu.edu.

# Management (Graduate Program)

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

The primary mission of the Rucks Department of Management's graduate program is to develop trained professionals who are qualified to instruct in a university environment and capable of conducting scholarly research. All PhD students are required to demonstrate knowledge in the broad domain of management and in an area of concentration within management. The area of concentration may be selected from either organizational behavior/human resource management (OB/HR) or strategic management.

# Administration

Jean B. McGuire, Chair

Thomas Greckhamer, Director of Graduate Studies, PhD Program (Management)

TELEPHONE	225-578-5187
FAX	225-578-6140
EMAIL	management@lsu.edu
WEBSITE	https://lsu.edu/business/management/

# Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions; 114 West David Boyd Hall; Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Applications for admission are received and evaluated by the department. Applicants must adhere to the application deadlines established by the Graduate School. The application deadline is **January 15**.

Individuals desiring admission to the PhD program must make formal application to the LSU Graduate School. The following documents should accompany all applications submitted to the Graduate School: transcript(s) of undergraduate study, transcript(s) of all graduate work, GMAT score, TOEFL, IELTS, or PTE score (if an international student) and a statement of purpose. If Graduate School criteria are met, these documents will be reviewed by the Department of Management's PhD Policy and Admissions Committee for an admission recommendation. This recommendation will then be forwarded to the Graduate School. The statement of purpose should include:

- 1. Career objectives and reasons for wanting to pursue a PhD;
- 2. How the applicant's academic or professional background has prepared him or her for PhD studies;
- 3. Reasons for selecting the PhD in Management at LSU;
- 4. To the extent possible, an outline of possible research interests;
- 5. Any other information that may assist in the admission decision.

In general applicants should have successfully completed coursework equivalent to either the MBA or MS in Management. Students without graduate level studies in management may be required to complete additional coursework. In general, minimum admission requirements are a GPA of 3.5 in prior graduate work (or undergraduate work for applicants who have not completed graduate level coursework), and a score of 600 or above on the GMAT.

International students whose native language is not English must also submit an acceptable TOEFL, IELTS, or PTE score.

# **Financial Assistance**

Financial assistance is available to some students. Support may be available through the student's home department or other units in the form of research or teaching assistantships. A student should contact his or her home department for more information on available assistantship positions. To ensure consideration for financial aid, all application materials should be submitted in accordance with the application deadline.

# **Graduate Faculty**

(check current faculty listings by department here)

Jeremy Mark Beus (6A) • Occupational safety, organizational climate, individual and team performance change, organizational socialization

Timothy D. Chandler (M) • Collective bargaining in the public/private sectors, labor-management arbitration, negotiation Thomas Greckhamer (M) • Organization theory, strategic management, international management, qualitative research methods Michael Johnson (6A): Human resource management, organizational behavior, gender & diversity, justice & ethics Andrew Caleb Loignon: Social class in the workplace, work groups and teams, and quantitative methodology Jean B. McGuire (M) • Strategic management, international strategic management, corporate governance Ji Hae You: executive succession, executive compensation, women on boards, shareholder activism Daniel Whitman (M) • Teams, leadership, and personality

#### **Emeritus Faculty**

Arthur G. Bedeian Courtland M. Chaney F. Marion Fletcher Edmund R. Gray Robert T. Justis

#### **Business Administration, PhD (Management Concentration)**

# **Doctor of Philosophy PhD in Business Administration, concentration in Management (PBDM) (GMGT)**

The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

The degree is a dissertation degree requiring a dissertation. Fifty-seven hours of credit at the graduate level must be earned, including a minimum of nine hours of credit for the dissertation.

The curricular requirements include:

- At least 57 hours at the 7000 level or above including pre-dissertation/dissertation research coursework.
- Up to nine hours of breadth of study courses in an appropriate business discipline as determined by the department. This requirement can be fulfilled with prior coursework and may be (although not required to be) included in the 57 course hour total.
- A primary area consisting of a minimum of 21 hours of earned credit in a specified field of study.
- Included in the primary area of study is a minimum core requirement of 15 credit hours in management core courses required of all PhD students: MGT 7301, MGT 7600, MGT 7800, and MGT 7811.
- A supporting area with a minimum of 12 hours of graduate level courses. Although students can select their supporting area, research methods is commonly recommended.

- A research tool requirement, usually met by successfully completing a two term sequence in basic statistics.
- Must pass a general/qualifying exam consisting of a written exam and a comprehensive oral exam.
- Successful completion and defense of the dissertation.

Please refer to two websites for (1) additional details about the program

(https://www.lsu.edu/business/management/academics/phd/index.php) and (2) the typical coursework completed during the four year program (https://www.lsu.edu/business/management/academics/phd/curriculum.php).

# Marketing (Graduate Program)

For information regarding the UNDERGRADUATE PROGRAM, click here.

# Philosophy of the Department of Marketing PhD Program

The PhD program in business administration with a concentration in marketing is designed to produce collegial scholars for academic careers in research, teaching, and service at universities. A strong emphasis is placed on research and a collaborative research environment. The department has (1) a state-of-the-art behavioral research lab housed in the Business Education Complex where faculty and students can conduct their research and (2) a large undergraduate student subject pool used for academic research studies. Doctoral students receive opportunities to participate in research projects beginning in their first semester of the program and continue to work closely with fellow doctoral students and faculty members on various research projects targeted for conference and journal publication while they are in the program.

#### Strengths of the program include:

- Opportunities to work with faculty on research projects beginning in the first semester of the doctoral program to develop publishable manuscripts.
- A state-of-the-art Department of Marketing Behavioral Research Lab housed in the Business Education Complex and access to the Department of Marketing undergraduate student subject pool for research projects.
- Brown bag "Professoring Seminars" offered every other year by marketing department faculty who share information concerning developing a research program, research stream goal-setting, written comprehensive exams, teaching, dissertations, interviewing, and academia as a career (conferences, promotion, and tenure).
- Travel support budget to present original research at conferences including the American Marketing Association (summer and winter conferences), Association for Consumer Research, Academy of Marketing Science, Society for Marketing Advances, and Society for Consumer Psychology, for instance.
- Placement at major colleges and universities in the US and abroad. Graduates have been placed in marketing departments at universities including the Michigan State University, Auburn University, the University of Virginia, Baylor University, Villanova University, Texas Christian University (TCU), Georgia Southern University, Wayne State University, Appalachian State University, Grand Valley State University, and Ohio University, among others.

# **Program Overview**

The program is year-round (fall, spring, and summer) for full-time study. The program consists of 24 semester hours of major marketing coursework, 15 semester hours of elective coursework, 12 semester hours of "common body of knowledge" coursework covering all other business disciplines (may be waived with an approved Master's degree), and 12 semester hours of dissertation coursework for a total of 63 hours. Students spend two academic years (fall and spring) completing coursework and devote summer terms advancing their research with fellow doctoral students and faculty members. Upon completion of major marketing coursework, students must pass a written comprehensive (qualifying) exam of major marketing coursework. Upon completion of 24 semester hours of major marketing coursework, 15 semester hours of approved elective coursework, and 12

semester hours of "common body of knowledge" coursework, students must pass an oral exam. Each PhD candidate is also required to design, implement, and complete an original dissertation under the supervision of a marketing faculty member. Overall, the PhD program normally requires four years to complete.

The typical course work completed during the four year program can be located at: https://www.lsu.edu/business/marketing/academics/phd/curriculum.php

# Administration

Ronald W. Niedrich, Chair	
Dan H. Rice, Director of Graduate Studies, PhD Program (Marketing)	
TELEPHONE	225-578-8684
FAX	225-578-8616
EMAIL	marketing@lsu.edu
WEBSITE	lsu.edu/business/marketing/

# Admission

The department believes in the importance of strong, cooperative student cohorts; consequently, a new cohort of approximately 3 - 5 students is typically admitted every other fall semester. Admission is based on a number of factors, including the applicant's record, standard admission test scores, a commitment to an intellectually demanding program of study, letters of recommendation, the applicant's overall standing compared with other students, and the number of vacancies in the program in a given year. A qualified student who holds a bachelor's and/or master's degree from an accredited college or university is eligible to apply for admission to the PhD program, regardless of his or her previous field of study. Minimum standards for consideration include: a grade point average of at least 3.4 in the most recently completed 60 hours of work, a GMAT score of at least 600, and strong recommendations from at least three individuals who have had the opportunity to observe the applicant's interest, ability, and commitment to a career of scholarship. The department does not accept GRE scores. International students whose native language is not English must also submit an acceptable TOEFL, IELTS, or PTE score. Applications are due December 31<sup>st</sup>, the year prior to a fall semester admittance and reviewed by faculty in January. Selected students are admitted in that upcoming August.

# **Financial Assistance**

Graduate assistantships and tuition waivers are generally awarded to all students accepted into the program and may be renewed for four consecutive years, assuming satisfactory progress is made toward completion of the degree. Because students are encouraged to collaborate on research projects throughout the PhD program, the department offers financial support for students to present research papers accepted at national conferences. During the first two years, students are assigned to a faculty member for 20 hours of work per week. Assistantship duties may include library work, assistance in grading, data entry and computer analysis of data sets, and working with a faculty member on a specific research project aimed at producing a publishable manuscript. During the third and fourth year, students are assigned to a faculty member for 10 hours of work per week and are typically required to teach one section of an undergraduate marketing course.

# **Graduate Faculty**

(check current faculty listings by department here)

Yashar Atefi (6A) •Sales force effectiveness, empirical modeling Judith Anne Garretson Folse (M) • Persuasion (source & message effects), social marketing, gratitude in marketing, consumption emotions and B2C relationship marketing Kristina Lindsey Hall • Organizational frontlines and services marketing strategy, the sales-service interface, and stakeholder engagement and collaboration Thomas J. Karam (3P) • Sports marketing Andrew Kuo (6A) • Consumer behavior, branding, corporate social responsibility, new media in advertising Andrew Long • Consumer and managerial judgment and decision making, consumer finance, higher-level cognition, numeracy, knowledge structure, and causal reasoning Donald Lund • Consumer and B2B relationship marketing, reciprocity and social exchange, services marketing, retailing and marketing strategy Ronald W. Niedrich (M) • Consumer judgment and decision making, quantitative modeling, research methods Dan H. Rice (M) • Consumer behavior, consumer response to persuasive appeals, contextual effects, consumer processing of bundled offers Monica Santaella (3P) • Marketing, promotions, advertising, business communication, public relations, merchandising and advancement of minorities in higher education Courtney Szocs • Sensory marketing, retail atmospherics, food marketing, and product aesthetics Jianan Wu (M) • eCommerce, marketing models, international marketing

### **Emeritus Faculty**

William C. Black Alvin C. Burns Joseph F. Hair

# **Degree Programs**

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

### **Business Administration, PhD (Marketing Concentration)**

# **Doctor of Philosophy (PhD) in Business Administration with** a concentration in Marketing (PBDM)(GMKT)

The PhD program in business administration with a concentration in marketing is a year round program (fall, spring, and summer) for full-time study. The program consists of 24 semester hours of major marketing coursework, 15 semester hours of elective coursework, 12 semester hours of "common body of knowledge" coursework covering all other business disciplines (may be waived with an approved Master's degree), and 12 semester hours of dissertation coursework for a total of 63 hours. Students spend two academic years (fall and spring) completing coursework and devote summer terms to advancing their research with fellow doctoral students and faculty members. Upon completion of major marketing coursework, students must pass a comprehensive (qualifying) exam of major marketing coursework. Upon completion of 24 semester hours of major marketing coursework, 15 semester hours of approved elective coursework, and 12 semester hours of "common body of knowledge" coursework, students must pass an oral exam. Each PhD candidate is also required to design, implement, and

complete an original dissertation under the supervision of a marketing faculty member. Overall, the PhD program normally requires four years to complete.

Please refer to two websites for (1) additional details about the program (https://www.lsu.edu/business/marketing/academics/phd/index.php) and (2) the typical course work completed during the four year program (https://www.lsu.edu/business/marketing/academics/phd/curriculum.php).

### **Mass Communication (Graduate Program)**

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

The Manship School of Mass Communication has a 100-year tradition of communication education and a world-class faculty equipped to carry out advanced training and research. The school counts among its graduates many journalists, corporate executives, agency heads, political consultants, and other leaders in mass communication. Alumni are active in mobilizing public support for the school, providing internships, and assisting students with career advice.

The school's faculty has been recognized for its high level of scholarly productivity. In addition, the school is home to the nation's only doctoral program in media and public affairs in partnership with the Department of Political Science.

Professional mass communication programs offered by the school at the master's level feature an appropriate theoretical and applied research foundation relevant to those who will shape the information age. The emphasis on applied research also means graduate students will have the opportunity to be involved in public service and research through the Reilly Center for Media & Public Affairs and seminars in journalism, advertising, public relations, political communication, broadcasting, and Internet technologies.

Diversity is a major focus of the school. Some graduate students are selected to participate in The Forum on Media Diversity (www.mediadiversityforum.lsu.edu), a comprehensive resource on media diversity research and issues for both the media and scholars.

### Administration

Martin Johnson, Dean

Yongick Jeong, Associate Dean for Graduate Studies and Research

TELEPHONE	225-578-2336
FAX	225-578-2125
E-MAIL	masscomm@lsu.edu
WEBSITE	www.manship.lsu.edu

# Master of Mass Communication & Juris Doctorate/Diploma in Civil Law Dual Degree

The Manship School and the LSU Law Center offer a concurrent degree program through which a student may receive both a Master of Mass Communication degree and a Juris Doctor/Diploma in Civil Law in approximately four years. This dual degree program is designed for those who wish to specialize in First Amendment law or to work as professionals in mass communication in fields related to law. For completion of the Master of Mass Communication degree within the dual degree program, a total of 34 credit hours are required, including 10 hours of core courses, nine hours of elective courses within the Manship School, nine hours of electives within the LSU Law Center, and six hours of thesis research. In addition, students must complete and defend a thesis. (For information about the requirements for the JD/DCL degree, please consult the LSU Law Center.)

### Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Applications for the PhD program are accepted for the fall semester only; applications for the master's programs are accepted for the fall and spring semesters, although most students begin the program in the fall semester. Applicants must adhere to the application deadlines established by the Graduate School. Applicants for all programs are evaluated only after supporting documents and credentials are received.

Students seeking admission must submit satisfactory credentials from previous study, acceptable GRE scores, three letters of recommendation, a statement of purpose, a resumé, and writing samples. International students whose native language is not English must also submit an acceptable TOEFL, IELTS, or PTE score.

Graduate students in mass communication are required to have their own wireless Internet access laptop computer upon entering either the master's or the doctoral program. Information regarding the type, specifications, and software may be obtained on the Manship website (www.manship.lsu.edu) or from 211 Journalism Building.

Further information concerning admission or program requirements may be obtained from the Manship School's associate dean for graduate studies and research or online at www.manship.lsu.edu.

# **Financial Assistance**

Financial assistance is available to some students. The Manship School offers financial aid in the form of graduate assistantships. The stipend for master's students is \$11,000 for nine months. For doctoral students, the stipend is \$25,000. In addition, graduate assistants receive a full tuition exemption. Assistants who are on contract for the academic year may also receive a tuition exemption for the following summer semester. Students are responsible for paying applicable fees. To ensure consideration for financial aid, all application materials should be submitted by **January 25** for the fall semester for the PhD, and in accordance with deadlines established by the LSU Graduate School. Master's degree program admission is on a rolling basis for start in the fall or spring semester, but not summer.

# Facilities

Graduate students in the Manship School have access to a full range of Internet, e-mail, word processing, graphic layout/desktop publishing, SPSS, digital camera, visual communication, nonlinear editing, and other computer- and electronic media-linked

peripherals. Staff members are available for instructional and consulting purposes. Graduate students also have opportunities to work with the Reilly Center for Media & Public Affairs and the Manship School Research Facility, which includes the Public Policy Research Lab and the Media Effects Lab. The Manship School also provides students opportunities to work with the Social Media Analysis and Creation (SMAC) Lab, giving them expansive tools to monitor social media communication and develop content.

# **Student Organizations**

The Mass Communication Association of Graduate Students (MAGS) is a social and support group especially for graduate students. All full-time or part-time students in the school are eligible to join. The association's primary purposes are to act as an effective channel of communication between graduate students and faculty; serve as an educational resource; undertake an annual service project; assist with fundraising and promotional events; and engage in networking, career planning, and social activities.

Other school-sponsored organizations open to graduate students include the American Advertising Federation, Association of Black Communicators, Public Relations Student Society of America, Radio/Television News Directors Association, Society of Professional Journalists, and Association of Hispanic Journalists.

# **Graduate Faculty**

(check current faculty listings by department here)

Nichole Bauer (6A) • Political communication, news media, gender and politics Jinx Broussard (M) • Public relations, journalism history, diversity Jerry Ceppos (M) • Media ethics, management, newspapers Erin Coyle (M) • Media law, ethics Joshua Darr (6A) • Political communication, political campaigns and elections, political knowledge, local journalism Margaret DeFleur (M) • Mass communication theory, media effects, health communication Ronald F. Garay (EM) • Journalism history Joshua Grimm (M) • Journalism, television news, media and gender Michael Henderson (6A) • Political communication, public affairs, election John Maxwell Hamilton (M) • Journalism, media history, foreign reporting Jun Heo (6A) • Advertising, media audiences, media effects Ralph Izard (EM) • Philosophy of the press, journalism Yongick Jeong (M) • Advertising, media effects, international communication Martin Johnson (M) • Political communication, public opinion, political psychology, public policy Nathan Kalmoe (6A) • Political communication, political psychology, public opinion, American history Soojin Kim (6A) • Advertising, visual communication, strategic communication, consumer psychology Ruobing Li (6A) • Strategic communication, media effects, health communication Robert Mann (M) • Political communication, political history, American history Andrea Miller (M) • Television news, information processing, ethics Hyojung Park (M) • Public relations, quantitative methodology Raymond Pingree (M) • Visual communication, political communication, mass communication theory and research Lance Porter (M) • New media effects, interactivity, Internet effects on society, advertising and public relations, interactive branding Meghan Sanders (M) • Public relations, advertising, mass communication theory and research Kathleen Searles (6A) • Political communication, campaign advertising, political psychology, partisan news Judith Sylvester (M) • Research methods, scholastic journalism, news reporting, media theory Chun Yang (6A) • Strategic communication, media effects

### **Dual Degree: JD/MMC**

Students interested are encouraged to visit the individual program site.

#### JD/DCL-MMC

LSU and the Paul M. Hebert Law Center offer several dual degree programs, allowing a student to earn both the JD/DCL and a master's degree.

Students enrolling in the dual degree programs must be admitted separately to the LSU Graduate School and the Law Center. Students should consult with the admissions office of each institution prior to enrollment.

Each program has specific requirements, which can be found by visiting the website listed above.

Students successfully completing the program listed above will receive two degrees, a JD/DCL awarded by LSU's Hebert Law Center and a master's degree awarded by LSU.

Students wishing to pursue dual degrees must complete and submit the "Request for Dual Degree" form.

#### Mass Communication & Public Affairs, Ph.D.

#### (PMCPA)

The PhD in Mass Communication and Public Affairs is a unique interdisciplinary degree that focuses on media and politics. The curriculum consists of 88 hours of credit, including 40 hours of required courses and a professional or research externship, and 18 hours of dissertation research within the Manship School. In addition, students complete 12 hours of elective courses in mass communication, six hours of additional advanced statistics or methodology courses, and 12 hours in an outside area of concentration. With approval, a student may receive credit for some coursework completed as part of the student's master's program. Finally, students must pass a comprehensive examination (with written and oral components) and successfully defend a dissertation.

#### **Mass Communication, MMC**

#### (MMC)

The Master of Mass Communication (MMC) degree requires 34 graduate credit hours, including 13 hours of core courses, nine hours in an appropriate track, six hours of electives, and six hours devoted to thesis research or a professional project. Or, as a final requirement for the degree, students may take a comprehensive examination (and a total of 12 hours of elective courses). While flexibly structured to serve a student's specific needs and interests, the curriculum is organized broadly to emphasize political communication, with a focus on journalism, advertising/public relations, or concentrated political communication study. For entering graduate students with little or no background in mass communication, additional prerequisite requirements may include *Legal Problems of the Mass Media* (MC 7018) or an equivalent media law course and a basic course in statistics.

#### **Strategic Communication Graduate Certificate**

#### (CSTCM)

The graduate certificate program in Strategic Communications will provide the knowledge, skills, and abilities that modern professionals need to survive in an increasingly connected and digital communication environment. This program will offer the essential skills for designing, implementing, and managing strategic communication for entrepreneurs, professionals in corporate, non-profit, governmental and non-governmental organizations, and for scientists and others who have a need to strategically communicate information both internally and externally. This program builds on the Manship School's nationally recognized expertise in media and public affairs, but also allows for specialization in terms of area of interest (health, science or politics, for example.)

Students must take the following core courses (all courses are 3 credit hours):

- MC 7042 Foundations of Strategic Communication (3)
- MC 7043 Strategic Communication Campaigns (3)
- MC 7019 Emerging Media: Theory, Application, & Effects (3)

Students also choose two courses from the following electives:

- MC 7018 Legal Problems of the Mass Media (3)
- MC 7032 Health and Science Communication (3)
- MC 7033 Race & Gender in Political Communication (3)
- MC 7040 Crisis Communication (3)
- MC 7041 Political Communications Writing (3)
- MC 7044 Visual Communication (3)
- MC 7999 Special Topics in Mass Communication (3)

If a student wishes to take a course that is not listed as an approved elective, he/she may do so provided the student gives a reasonable rationale and seeks the approval of the Manship School's Associate Dean for Graduate Studies. The Associate Dean for Graduate Studies will advise all students to ensure that they choose electives that match their professional goals.

For further information, please contact the Manship School of Mass Communication at 225-578-1899 or masscomm@lsu.edu.

# **Interdisciplinary Certificate Program in Materials Science and Engineering (Graduate Program)**

# **Program Overview**

The Interdisciplinary Certificate Program in Materials Science and Engineering is designed to provide both current LSU graduate students and new graduate students in the College of Engineering and College of Science an opportunity to enhance their career opportunities in industry, government laboratories, academia, and entrepreneurship. The program emphasizes the multidisciplinary nature of the study of materials and the engineering application of their properties.

### Admission

The admission process for the Interdisciplinary Certificate Program in Materials Science and Engineering involves two steps:

1. Apply to the LSU Graduate School as a non-degree seeking graduate student as described below; if you are a current LSU graduate student please proceed to step two – there is no need to complete the online admission application.

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts (along with an English translation version for non-English speaking universities) from each and every institution attended, official GRE scores (sent directly from ETS to the LSU Graduate School: code 6373), official TOEFL, IELTS, or PTE scores (for international students whose native language is not English), and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

In addition to the documents and scores required by the Graduate School, the Department of Chemical Engineering requires applicants to submit the following items: a statement of purpose, a current resumé/CV, and a minimum of three letters of recommendation (no form required). A writing sample is not required by our department but may be submitted

if the applicant so desires. All of these additional items should be submitted electronically through the Graduate School admission system. Direct mailing of these items is discouraged.

Applicants must adhere to the application deadlines established by the Graduate School and the department. Meeting the minimum admission requirements established by the Graduate School does not necessarily ensure acceptance into the program. Applications for admission are evaluated by the graduate admissions committee.

2. Apply to the graduate certificate program. To do so, you must fill out the graduate certificate department approval form found at www.mse.lsu.edu and submit it to the chair of the MSE Education Committee.

### **Materials Science and Engineering Graduate Certificate**

#### (CMSE)

The Interdisciplinary Certificate Program in Materials Science and Engineering is designed to provide both current LSU graduate students and new graduate students in the College of Engineering and College of Science an opportunity to enhance their career opportunities in industry, government laboratories, academia, and entrepreneurship. The program emphasizes the multidisciplinary nature of the study of materials and the engineering application of their properties.

The Graduate Certificate in Materials Science and Engineering requires 15 credit hours of coursework in five core studies from eight different departments in two colleges providing the student exposure to:

- current topics in materials science and engineering
- thermodynamics of materials
- synthesis of materials
- analysis of materials
- simulations of materials

For a list of approved courses for this program, please see the departmental website.

For further information, please contact 225-578-8577 or ywang@lsu.edu.

# **Mathematics (Graduate Program)**

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

The Department of Mathematics offers graduate studies leading to the Master of Science (MS) and Doctor of Philosophy (PhD) degrees. The department has 51 professors plus a number of postdoctoral and visiting faculty. The broad range of research specialties represented by the faculty provide for a PhD student to specialize in a wide variety of areas of pure and applied mathematics, including algebra, algebraic geometry, algebraic topology, knot theory, graph theory, matroid theory, optimization, control theory, partial differential equations, mathematics of materials science, scientific computing and numerical analysis, integral and evolution equations, Lie group representations, harmonic analysis, representation theory, number theory, quadratic forms, probability theory, stochastic analysis, mathematical physics, and topological algebra.

# Administration

#### Oliver Dasbach, Chair

William A. Adkins, Director of Graduate Studies

TELEPHONE	225-578-1601
FAX	225-578-4276
E-MAIL	grad@math.lsu.edu
WEBSITE	www.math.lsu.edu/grad

### Admission

Applications and supporting materials for all graduate study must be submitted through the LSU Graduate School online application site that can be accessed at http://www.lsu.edu/graduateschool/. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Applications for admission for the fall semester should be received with all supporting documents by January 15. Late applicants will be considered so long as openings remain. Complete detailed departmental instructions for application are given at www.math.lsu.edu/grad/applprocd. Applicants must adhere to the application deadlines and requirements established by the Graduate School.

Students seeking admission must submit satisfactory credentials from previous college and/or graduate study, GRE general test scores, and three letters of recommendation. These letters are very important and should be written by professors, who can attest from direct knowledge to the applicant's readiness for graduate study in mathematics. A statement of purpose presenting the student's mathematical experience, interests, and goals must be provided. International students whose native language is not English must also submit an acceptable TOEFL, IELTS, or PTE score.

### **Financial Assistance**

The Department offers a wide variety of financial aid in the form of teaching assistantships, research assistantships, fellowships and traineeships. These are detailed at http://www.math.lsu.edu/grad/funding. There is a required "Statement of Purpose" which must be included as part of the application. It is needed so that the department can ascertain whether the student's experience, preparation, and goals are compatible with the department's research interests and programs. To ensure consideration for all available forms of financial aid, all application materials, with full supporting documents, should be submitted through the LSU Graduate School online application site that can be accessed at http://www.lsu.edu/graduateschool/, and in accordance with deadlines and requirements established by the LSU Graduate School. The department will consider late applications, but offers of financial aid will be made beginning in February. Late applicants can be considered for remaining openings or for declined financial aid offers.

# **Graduate Faculty**

(check current faculty listings by department here)

Pramod Achar (M) • Representation theory of algebraic groups William A. Adkins (M) • Analytic geometry, linear algebra over commutative rings Yuri Antipov (M) • Integral and functional equations of continuum mechanics Scott Baldridge (M) • Geometric topology, differential geometry, gauge theory Blaise Bourdin (M) • Mathematics of materials science, scientific computing, optimal design Susanne C. Brenner (M) • Scientific computing & numerical analysis, multigrid methods Aynur Bulut (6A) • Partial differential equations Daniel Cohen (M) • Topology and combinatorics Pierre E. Conner, Jr. (EM) • Topology, algebra Pallavi Dani (M) • Geometric group theory Oliver Dasbach (M) • Knot theory, braid groups, low-dimensional topology Mark G. Davidson (M) • Representations of Lie groups Charles N. Delzell (M) • Real algebraic geometry Guoli Ding (M) • Graph theory, combinatorics Ricardo Estrada (M) • Asymptotic expansions, Fourier analysis, integral equations Arnab Ganguly (6A) • Probability, stochastic analysis Patrick M. Gilmer (M) • Knot theory and low-dimensional manifolds William Hardesty (3F) • Representation Theory Hongyu He (M) • Representation Theory and Harmonic Analysis Jerome W. Hoffman (M) • Algebraic geometry Hui-Hsiung Kuo (EM) • Probability Jimmie D. Lawson (EM) • Topological algebra Robert P. Lipton (M) • Calculus of variations and PDE, optimal material design Amha Lisan (M) • Topological algebra Richard A. Litherland (M) • Algebraic topology, knot theory Ling Long (M) • Number theory James J. Madden (M) • Algebraic geometry Karl E. Mahlburg (M) • Number theory, combinatorics Michael Malisoff (M) • Control theory and nonlinear differential equations Jorge Morales (EM) • Quadratic forms Frank M. Neubrander (M) • Operator semi-group, partial differential equations Siu-Hung Ng (M) • Hopf algebras and tensor categories, quantum groups Phuc Cong Nguyen (M) • Partial differential equations, harmonic analysis, nonlinear potential theory Augusto Nobile (EM) • Algebraic geometry Gestur Olafsson (M) • Lie groups Bogdan Oporowski (M) • Graph theory James G. Oxley (M) • Matroid theory, graph theory Robert V. Perlis (M) • Algebraic number theory James R. Retherford (EM) • Functional analysis Leonard F. Richardson (M) • Harmonic analysis on homogeneous spaces Boris Rubin (M) • Harmonic analysis, Radon transforms, wavelets Daniel Sage (M) • Representation theory, algebraic geometry, material science Ambar Sengupta (M) • Probability, mathematical physics Stephen Shipman (M) • Photonic band gap materials, discrete nonlinear Schrodinger equations Lawrence J. Smolinsky (M) • Knot theory, algebraic topology Neal W. Stoltzfus (EM) • Knots, Links & Algebraic Invariants, low dimensional topology, braids and mapping class group Padmanaban Sundar (M) • Probability and statistics Li-yeng Sung (M) • Partial differential equations, scientific computing Michael M. Tom (M) • Partial differential equations Fang-Ting Tu (6A) • Number Theory David Shea Vela-Vick (M) • Contact and symplectic geometry, low-dimensional topology, Riemannian geometry Dirk Vertigan (M) • Combinatorics Shawn Walker (M) • Finite element methods, free boundary problems, PDE-constrained (shape) optimization Xiaoliang Wan (M) • Stochastic modeling, numerical methods for stochastic PDEs, minimum action method Peter R. Wolenski (M) • Control theory Milen Yakimov (M) • Integrable systems, representation theory, and Poisson geometry Anton Zeitlin(6A) • Representation theory, Mathematical physics

Hongchao Zhang (M) • Nonlinear optimization and its applications, numerical analysis, numerical linear algebra Jiuyi Zhu (6A) • Partial differential equations, harmonic analysis, geometric analysis Andrew Zimmer (6A) Several complex variables, Lie groups, Riemannian geometry

### Mathematics for Advanced Secondary Institutions Graduate Certificate

#### (CMASI)

The Graduate Certificate Program in Mathematics for Advanced Secondary Institutions serves as a credential for teaching dual enrollment math courses and other math courses taught in high school - such as Advanced Placement (AP) Calculus- that may be recognized for college credit.

The certificate will require 18 hours of coursework in specialized graduate-level mathematics courses. The program is designed to equip advanced secondary teachers to handle college-level material effectively, use internet-based instructional technologies to help achieve college-level learning goals, and meet formal SACSCOC requirements for instructors of courses designed for transfer to a baccalaureate degree. Graduates will demonstrate advanced knowledge for teaching mathematics in high-school and through the first several college courses--such as College Algebra and Trigonometry, Calculus, and Statistics--and command of teaching strategies and techniques appropriate for this material.

Students will take the following courses:

- MATH 4005 Geometry (3)
- MATH 6303 Implementing Curriculum Standards for Mathematics in High School (1-3)
- MATH 6893 Seminar in Mathematics for Secondary Teachers (1-3)
- MATH 4024 Mathematical Models (3)
- MATH 6303 Implementing Curriculum Standards for Mathematics in High School (1-3)

For additional information, please contact the Department of Mathematics at 255-578-1665 or dept@math.lsu.edu.

### Mathematics, M.S.

#### (SMATH)

The departmental-level academic course plan, including course selections, for each student must be approved by the student's advisory committee. The committee will include the student's major advisor and at least two additional members of the department's graduate faculty. The MS degree in mathematics is available as both a non-thesis and a thesis degree. There is also a thesis MS with concentration in applications as well as a thesis MS with a concentration in financial mathematics. These four options entail different requirements.

- The non-thesis MS in mathematics requires 36 semester hours, of which at least 24 hours must be in mathematics and at least 18 must be in mathematics courses numbered 7000 or higher. Every non-thesis MS student must pass the department's written comprehensive examination, which is administered twice annually and is described at https://www.math.lsu.edu/grad/MS. Doctoral students in mathematics normally earn a non-thesis MS during the first two years of enrollment in the PhD program, described below.
- The thesis MS in Mathematics without concentration is based on breadth of exposure in mathematics. The graduate coursework requirement is 36 semester hours, six of which will be thesis credit. Of the 36 hours, at least 24 must be in mathematics, and at least 18 of those 24 hours must be at the 7000 level or higher. The courses must satisfy requirements listed at https://www.math.lsu.edu/grad/MS. The chair of the student's advisory committee will be the thesis advisor. The thesis must be an original and interesting contribution to the field, a worthwhile and useful

expository work, or a substantial application of mathematics. An oral thesis defense is required as the final examination for this program.

- The thesis MS in Mathematics with concentration in applications requires 30 semester hours of graduate credit, 24 hours of which must be in graduate level classes, and six in thesis research. At least 12 of the 24 semester hours have to be in courses numbered 7000 or above. The six hours of thesis are not counted toward this requirement. Of the required 24 semester hours of coursework, a minimum of 12 must be taken in the Department of Mathematics, nine of which must be at the 7000 level. The remaining 12 hours must be in approved elective courses, and at least six of these hours must be in approved courses related to the thesis. The courses must satisfy requirements listed at https://www.math.lsu.edu/grad/msconapp.
- The Master of Science in mathematics with concentration in financial mathematics requires a total of 36 credit hours of which six hours are thesis credit. The curriculum is intended to provide specialized master's-level training for individuals seeking employment in today's sophisticated financial markets requiring substantial knowledge of graduate level mathematics. The curricular requirements are presented in detail at www.math.lsu.edu/grad/msconfin.

#### Mathematics, Ph.D.

#### (PMATH)

The requirements for the PhD degree in mathematics include demonstrating a mastery of a broad area of mathematics and writing a dissertation making an original and substantial contribution to mathematics. The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's advisory committee each semester. Specific requirements for the PhD degree in mathematics include:

- Completion of at least 54 semester hours of graduate credit.
- Passing the PhD-qualifying examination no later than the second year of study, unless a postponement is allowed by the graduate committee. This examination, based on the department's core curriculum, is described in detail at https://www.math.lsu.edu/grad/PhD#qualexam.
- Completion of the breadth requirement. Breadth courses are described in detail at https://www.math.lsu.edu/grad/PhD#coursework.
- Passing the oral general examination, conducted by the student's advisory committee, by the end of the third year of study, unless a postponement is allowed by the graduate committee.
- Writing a dissertation and passing the final examination, which is primarily a doctoral dissertation defense. This examination is conducted by the student's advisory committee, chaired by the student's major professor.

# **Mechanical and Industrial Engineering (Graduate Program)**

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

The research program in the Department has experienced significant growth over the last ten years. Mechanical and Industrial Engineering faculty members, with extensive scholarly and professional experience, offer high level research and graduate study opportunities to graduate students who are supported through research assistantships, teaching assistantships, or fellowships. Annual research expenditures on externally funded research have ranged between \$3.5 and \$4.5 million during the last five years.

Mechanical Engineering faculty members span general areas of expertise ranging from the traditional ones such as mechanical systems (design & control), materials science & engineering, and thermal-fluid science and combustion, to more novel ones such as micro/nano-systems (design and fabrication) and molecular-level engineering. The ME faculty is primarily involved in research related to Energy, Materials & Manufacturing, Aerospace and Bio-Technology applications. Research is funded through

grants from federal agencies (NSF, NASA, DoD, DoE, NIH etc.), state government (Louisiana Board of Regents), national laboratories, and various industries.

Industrial Engineering faculty members' expertise are in human factors & ergonomics, supply chain, operations research, information technology, and safety. Their research is related to Energy, Information Systems and Health Care applications and is funded by federal agencies (e.g. DoE, NASA) but mostly from the State and private sectors.

The graduate program of Mechanical Engineering (ME) encompasses the areas of mechanical systems, thermal-fluid science, materials science and engineering, and microsystems. The graduate faculty works closely with graduate students in research projects that cover both traditional and nontraditional areas. Graduate students are engaged in experimental, numerical, and modeling studies and can select their coursework from mechanical engineering and other departments, in consultation with their advisory committees. Students have access to excellent laboratory facilities and equipment, as well as to extensive computer systems, both in the department and on the LSU campus. Mechanical engineering graduates are prepared for employment in industries, universities, state and federal government, and the private sector.

Industrial Engineering (IE) is a branch of engineering that is concerned with the development, improvement, implementation and evaluation of integrated systems of people, money, knowledge, information, equipment, energy, materials, analysis and synthesis, as well as the mathematical, physical and social sciences together with the principles and methods of engineering design to specify, predict, and evaluate the results to be obtained from such systems or processes. It encompasses specialized knowledge and skills in the physical, social, engineering, and management sciences, such as human and cognitive sciences, computer systems and information technologies, manufacturing processes, operations research, production, and automation. The industrial engineer integrates people into the design and development of systems, thus requiring an understanding of the physical, physiological, psychological, and other characteristics that govern and affect the performance of individuals and groups in working environments.

IE at LSU is a unique academic program in Louisiana, bringing together in one program, opportunities for students in ergonomics and occupational health, information technology, and production/manufacturing systems, and to develop skills in traditional industrial engineering activities. The program relies on rigorous mathematical and logical approaches to theoretical and practical problem solving, with extensive use of computers and industrial-class software for optimization of integrated processes and systems. The program has a formal program leading to the Master of Science in Industrial Engineering. Students may also pursue master's and doctoral programs in engineering science, with specialization in industrial engineering.

# Administration

Dimitris Nikitopoulos, Chair

Sunggook Park, Mechanical Engineering Graduate Program Director

Isabelina Nahmens, Industrial Engineering Program Director

Elise Bridgewater, Graduate Studies Coordinator

TELEPHONE 225-578-5828

WEBSITE lsu.edu/eng/mie

# Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Applications for admission are received and evaluated by the Department of Mechanical and Industrial Engineering. Applicants must adhere to the application deadlines established by the Graduate School.

Evaluation will be completed by the department within two months of receipt. The department's deadline is generally two weeks before the application deadlines established by the Graduate School. Students seeking admission must submit satisfactory credentials from previous study, acceptable GRE and TOEFL, IELTS, or PTE exam scores, and three letters of recommendation. The admission requirements of the department are in addition to those of the Graduate School and are generally more restrictive.

For MIE graduate programs typically, a minimum undergraduate grade point average of 3.0 ("A" = 4.0) and a GRE (verbal + quantitative) score of 300-310 are required.

#### **Admission to Mechanical Engineering**

To pursue an advanced degree in Mechanical Engineering, an applicant must hold a B.S. degree from an engineering department accredited by the Accreditation Board of Engineering and Technology (ABET), or the equivalent. Special programs can be developed if the degree is from another discipline. The graduate faculty of the department must approve these special programs. As a potential graduate student of Mechanical Engineering, you must meet the minimum requirements for admission to LSU's Graduate School before being considered for admission into the Mechanical Engineering graduate program. The admission requirements of the department are in addition to those of the Graduate School and are generally more restrictive. Typically, a minimum undergraduate and/or Masters grade-point average of 3.0 ("A" = 4.0, "B" =3.0) and competitive GRE scores are required. Applications with a Quantitative Reasoning GRE score below the 80th percentile will not be considered unless petitioned by an ME faculty member. For foreign applicants a minimum TOEFL score of 213 (computer-based), 550 (paper-based), 79-80 (internet based – IB) or minimum 6.5 (IELTS) would be expected. As deciding on admissions and assistantships as well as taking care of visa formalities take considerable time, potential students are advised to apply sufficiently early, say six to nine months in advance of the semester in which they wish to enroll.

#### **Admission to Industrial Engineering**

Students wishing to pursue studies leading to a graduate degree must first apply to the Graduate School. The LSU General Catalog provides specific information regarding the requirements and conditions of admission. In general, the student who wishes to enroll for graduate study must have earned a Bachelor's degree (or equivalent) from an accredited college or university. Although there are no restrictions regarding the major area of study pursued in the baccalaureate program, graduates of curricula outside the program area will be required to satisfy prerequisite requirements in the program area. This prerequisite work will not carry graduate credit, but is intended to satisfy deficiencies. The number of courses required will depend on the student's background and preparation; such requisite courses may have pre-requisites that need to be fulfilled prior to enrolling in those courses. To that end, the MSIE Program does not have pre-requisites in terms of admission to the program.

All applicants for admission to the IE and Engineering Science Graduate Programs are required to present satisfactory scores on the aptitude portion (quantitative + verbal sections) of the Graduate Record Examination (GRE) before admission can be granted. The Graduate School can provide further information on the GRE. Generally, only those students who have at least 2.75 (on a 4.0 scale) grade point average overall and 3.00 on the last 60 hours in their undergraduate courses and satisfactory GRE scores will be admitted. However, cases may be considered on an individual basis considering grades in the junior and senior years and GRE scores. In rare cases, applicants may be granted probationary admission, and they must then satisfy the Graduate School and departmental requirements for satisfactory progress or be dropped from the program. See section on "Satisfactory Progress" for more details. Non-degree seeking students may be admitted as "Non-matriculated" students if they qualify for admission to courses.

#### **English Requirements**

All applicants whose native language is not English and who have not completed their degree requirements at an accredited U.S. college or university are required to submit their scores on the Test of English as a Foreign Language (TOEFL). The Graduate

School has minimum requirements for TOEFL scores depending on which version of the TOEFL test is taken. International students whose native language is not English must have a TOEFL score of at least 550 on the paper based test, a 213 on the computer-based test, or a 79 on the Internet-based test, an IELTS score of 6.5; or PTE score of 59.

Additionally, international students must take the LSU Comprehensive English Language Test after arrival on campus and before registration. If the test results indicate a deficiency in English, the student will be required to register for appropriate English language courses. International graduate assistants (teaching, service, or research) must complete ENGL 1051 during their first semester unless a waiver is granted as a result of interview with the English Department. Repeated registration of such courses may be required until the student can demonstrate sufficient proficiency in English.

As deciding on admissions and assistantships as well as taking care of visa formalities take considerable time, potential students are advised to apply as early as possible, usually six to nine months in advance of the semester in which they wish to enroll.

### **Financial Assistance**

Financial assistance is available to some students. Support may be available through the department in the form of research or teaching assistantships. To ensure consideration for financial aid, all application materials should be submitted in accordance with deadlines established by the LSU Graduate School. Research assistants take active part in research activities and projects as directed by relevant faculty members advising the assistants. Research assistantships are negotiated and eventually offered through direct discussions between the student and faculty members.

Some departmental/programmatic assistantships are available for qualified students and are awarded each semester, based on programmatic needs and student qualifications. Except in unusual cases, no master's candidate will be awarded a departmental/programmatic assistantship for more than four semesters. A doctoral candidate may be awarded a departmental/programmatic assistantship for up to six semesters. Faculty who have funded research projects provide additional assistantships for participating graduate students. Faculty members also recommend students for fellowships and stipends when these become available.

# Facilities

The Industrial Engineering (IE) Computer Laboratory, used for computer lab instruction and open use by IE students, is equipped with 48 computers. Software includes Microsoft Office Professional, Visio, Microsoft Project, Primavera P6, AutoCAD, Simio (factory simulation), Lingo (optimization), SAS, Minitab, MATLAB, Maple, Visual Studio.NET (C++, C#, VB, ASP), Java, and many other applications supporting IE coursework. The lab is supported by a bank of twelve servers providing support of coursework in development of information systems, Web application systems, eCommerce systems, and client/server support for project management and simulation courses.

The Human Factors Laboratory offers and supports training and research in safety engineering, human factors, and ergonomics by providing laboratory space and computing equipment. Two laboratories supporting human factors and safety, the Work Evaluation Laboratory and a Human Factors Laboratory, provide students with the appropriate tools and environment for research in the areas of biomechanics, work environment design, cognitive ergonomics, and control systems. Some of the available research equipment includes a treadmill, 2-D and 3-D Motion Analysis System (Ariel performance analysis system), force platform, 8 Channel Wireless EMG System, Dual Axis Goniometers, GPM Anthropometer, Computerized Exercise Machine, C-Motion - Motion Analysis Software, Human CAD Software, 3D Static Strength Prediction Program, Deltatrac metabolic monitor), human musculoskeletal models, vibration meter, and the like. The Safety Laboratory allows hands-on demonstrations of industry safety equipment in addition to simulation software for modeling petrochemical control room operations.

The Systems Integration Laboratory is used for research and instruction in the integration, automation, and control of process and discrete-part manufacturing systems with particular emphasis on the application of information technologies to these systems. The Systems Integration Lab has twelve workstations. Equipment includes three Allen Bradley PLC with modules for digital and analog I/O and thermocouple measurement; AC and DC motor controllers; a four-axis motion controller; servo and stepper

motors and other actuators; high speed data acquisition and control boards; a remote national instruments data acquisition fieldpoint unit, digital and analog sensors and instrumentation, a visual inspection system, and networking equipment for use in laboratory instruction. Software available includes WonderWare and Lookout SCADA software, Labview Development Suite (virtual instrument development), Visual Studio.NET, Java, SAS, Lingo, ARENA, and Rockwell Software RSLogix Ladder Logic programming, AutoCAD, Matlab, and numerous other application and development packages.

# **Graduate Faculty**

(check current faculty listings by department here)

Fereydoun Aghazadeh (M) • Human Factors Engineering, Construction Ergonomics, Work Physiology, Occupational **Biomechanics**, Safety Engineering Adam J. Baran (3F) • Fluid Mechanics, heat transfer, multi-phase flow, gas dynamics, aerodynamics, and propulsion Tryfon Charalampopoulos (M) • Heat transfer, combustion, laser diagnostics Marcio de Queiroz (M) • Nonlinear control theory and applications, active magnetic and mechanical bearings, biological and biomedical system modeling and control Ram Devireddy (M) • Bioheat and mass transfer, tissue engineering, biological fluid flow, cryopreservation of cells and tissues Manas Ranjan Gartia (6A) • Plasmonics, Nanophotonics, Surface Enhanced Raman Spectroscopy (SERS), Advanced Nanofabrication and Nanomanufacturing, Biosensors Development, Biomedical Research, Nuclear Forensics, Materials Characterization, Mobiled and Wireless Integrated Sensing Keith Alan Gonthier (M) • Theoretical and computational fluid dynamics, combustion, continuum mechanics, multi-phase flow, gas dynamics Shengmin Guo (M) • Fluid sciences, thermal engineering Craig M. Harvey (M) • Human Factors Engineering, Safety Engineering, Human Computer Interaction Laura H. Ikuma (M) • Human Factors Engineering, Safety, Musculoskeletal Disorders, Psychosocial Factors Hyun Jeon (6A) Manufacturing Process Modeling, Energy Analysis for Manufacturing Systems, Queueing Networks, Stochastic Processes, Simulation, Applied Operations Research Michael Khonsari (M) • Tribology, rotating machinery performance analysis, heat transfer, numerical analysis, modeling and simulations Gerald M. Knapp (M) • NLP, text & data analytics, Information Systems and Technology, Systems Integration, Maintenance Management, Reliability Engineering Guoqiang Li (M) • Composite materials and composite structures T. Warren Liao (M) • Soft Computing, Supply Chain Management, Logistics & Distribution, Lean Six Sigma, Advanced Materials and Manufacturing, Data Mining Fengyuan Lu (6A) • Advanced nuclear reactor materials, nuclear waste management, radiation effects in nuclear reactor materials, nanostructured nuclear materials, advanced ceramic and composite fabrication, energy storage and conversion materials Wen Jin Meng (M) • Plasma-based materials processing, nanostructure ceramic coatings, and micro/nano fabrication Shyam Kumar Menon (6A) • Combustion and fuel-based applications Dorel Moldovan (M) • Materials modeling and simulation, microstructure evolution and deformation in nanocrystalline materials, thin films and interfacial materials Michael C. Murphy (EM) • Biomechanics, microsystems, system dynamics and control Isabelina Nahmens (M) • Quality Management, Lean, Six Sigma, Project Management, Healthcare Systems Engineering, Construction Dimitris E. Nikitopoulos (M) • Experimental and numerical fluid dynamics, two-phase flow and microfluidics Su-Seng Pang (EM) • Mechanical systems Sunggook Park (M) • Nanofabrication technology and applications, Nanoimprint lithography, BioMEMS/NEMS, bioengineering, polymer photonic devices, liquid crystal displays, and surface coatings Mehdy Sabbaghian (EM) • Mechanical systems Bhaba R. Sarker (M) • Production and Manufacturing Systems Engineering: Production Planning & Control, Flexible/Cellular Manufacturing Systems, Material Handling, Scheduling, Location Theory, JIT Inventory Systems, Warehouse Logistics and Distribution, Lean Manufacturing, Supply Chain Management, Military Logistics, Renewable Energy Systems, and Applied **Operations Research** Ingmar Michael Schoegl (M) • Combustion, thermochemical energy conversion (fuel reforming, gasification), alternative fuel

sources (biofuels, biomass), and solid-oxide fuel cells

Shuai Shao • Multiscale solid interface engineering, multiscale computational materials science, nano-materials, additive manufacturing

Glenn Sinclair (M) • Fracture mechanics, tribology and contact problems, and numerical methods

Warren Waggenspack, Jr. (M) • Computer-aided geometric design (CAGD), computer-aided engineering for biomechanical engineering, machine design, education, and microsystems

Muhammad Wahab (M) • Fatigue and fracture mechanics, stress analysis, computational plasticity, and structural integrity Wanjun Wang (M) • MEMS, microsensors, and microactuators

Ying Wang (M) • Energy conversion and storage systems, electrochromic displays, nanostructured materials, functional ceramics, atomic lay deposition and chemical vapor deposition

Harris Wong  $(M) \bullet$  Fluid mechanics, heat transfer, interfacial phenomena, solid films, two-phase flow in porous media, human tear film, spectral and boundary integral methods

#### **Mechanical Engineering, M.S.ME**

#### (MME)

The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

# **Thesis Option**

The degree is a thesis degree requiring a written thesis with the approval of the student's major professor and advisory committee. Twenty-four hours of credit at the graduate level must be earned including a maximum of six hours of credit for the thesis. The curricular requirements include:

- At least twelve credit hours at the 7000 level or above, exclusive of any type of independent studies credit except for special project credit earned.
- A minimum of five courses in ME.
- A primary area consisting of a minimum of nine hours of earned credit in a specified field of study in one of the following areas: thermal sciences, mechanical systems, or materials science and engineering.
- A minimum core requirement of three credit hours outside the student's primary area of specialization
- One course (three credit hours) in mathematics.
- One credit hour of the ME Graduate Seminar (ME 7901) every semester, except for circumstances as stated below:
  - Please Note: The seminar attendance requirement for part-time students will be for one semester only. The seminar course (ME 7901) attendance requirement is waived for any student, after the date when he/she has successfully defended his/her thesis, or while he/she is participating in an out-of-state internship or out-of-state student exchange program under approval of his/her major professor. If this condition is met for an entire semester, the registration requirement is waived.
- The major professor and advisory committee must approve all course selections.
- In addition, the student is required to present his/her research results at a departmental forum before graduation, usually during the final semester in residence. This is done in the annual departmental Graduate Student Research Conference (GSRC) prior to graduation.

The student must pass a final exam consisting of a thesis and a comprehensive oral exam. At the discretion of the student's advisory committee, a written exam may be required.

# **Non-Thesis Option**

The degree is a non-thesis degree requiring a special project. Thirty-six hours of credit at the graduate level must be earned including a maximum of three hours of credit for the special project under ME 7903. The non-thesis option is considered to result in a terminal degree in a technical field. It is appropriate for practicing and/or employed engineers who wish to acquire advanced background and knowledge in chosen subject areas without having the need to pursue rigorous research. The degree can be earned with a part-time departmental-level academic course plan. It is generally not available to international students under student visa (F1) category.

The curricular requirements include:

- At least 18 credit hours at the 7000 level or above.
- A minimum of six courses must be taken of mechanical engineering core courses with at least one course from each of the three areas of specialization: thermal sciences, mechanical systems, and materials science and engineering.
- One course (three credit hours) in mathematics.
- An additional 12 credit hours as approved by the advisory committee, to achieve depth in one or more areas
- A grade of "B" or above in each course in order for the course to qualify toward the degree requirements.
- One credit hour of ME Graduate Seminar (ME 7901) every semester. The seminar attendance requirement for part-time students will be to register and attend for one semester. The seminar course (ME 7901) attendance requirement is waived for any student, after the date when he/she has successfully completed his/her final exam, or while he/she is participating in an out-of-state internship or out-of-state student exchange program under approval of his/her major professor. If this condition is met for an entire semester, the registration requirement is waived.

Additionally, the student must declare his/her intent to join the MS non-thesis option before beginning his/her departmental-level academic course plan. If the student is in the non-thesis option, he/she will not be eligible for any financial aid from the department or college. If the student is currently in the thesis option and has received financial support from the department, he/she will not be permitted to switch to the non-thesis option.

The student must pass a final exam consisting of a special project and a comprehensive oral exam (three credit-hour project under ME 7903, a report approved by the major professor and advisory committee). This report is used in the final exam as a document to portray ability to do in-depth analysis of a mechanical engineering topic.

### Mechanical Engineering, Ph.D.

#### (PME)

The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty plus the dean's representative such that the LSU Graduate School's requirements for graduate committees are satisfied.

The doctoral degree requires a dissertation. If the student is deemed eligible by the ME Graduate Studies Committee to enter the PhD program directly from a BS degree, he/she will be required to take a minimum of 42 hours of coursework (not S/U graded coursework) and 12 hours of dissertation research (ME 9000). If the student has earned a recognizable MS degree with at least 24 hours of graduate level courses applicable to the proposed doctoral program, he/she may be allowed to transfer up to 24 hours of credit upon approval by the major professor, the student's advisory committee, and the ME graduate program director, which will count on the requirement of a minimum of 42 hours of coursework. Coursework must be approved by the major professor, the student's advisory committee, as evidenced by the certification of the departmental plan of study form and the Graduate School Doctoral Degree Audit Form.

The curricular requirements include:

• At least nine hours at the 7000 level or above if the student has earned a MS degree, exclusive of independent studies (ME 7903) credits unless petitioned beforehand and approved by major advisor/GSC/chair, and at least 18 hours at the 7000 level or above if the student has entered the PhD degree directly from a BS degree, exclusive of any type of independent studies credit except for special project credit earned.

- A minimum core requirement of 12 credit hours in thermal sciences, mechanical system, or materials science and engineering, along with 27 credit hours of technical electives (related to the student's research area and approved by the advisory committee), and a minimum of three credit hours in mathematics, if direct to PhD degree from BS degree.
- A minimum core requirement of 12 credit hours in thermal sciences, mechanical system, or materials science and engineering, along with six credit hours of technical electives (related to the student's research area and approved by the advisory committee) for students with an MS degree with the approved transfer of 24 credit hours. Among the 12 credit hours of core coursework, a minimum of nine credit hours should be taken from 7000-level courses.
- Completion of the PhD qualifying exams and passing in a minimum of three areas (mathematics + two topics) to continue with the PhD program (areas will be selected in conjunction with the major professor) prepare for and take them by the end of the student's first year (Passing of these exams is a prerequisite for taking the general exam complete all the qualifying exam requirements within two years (three years for direct PhD students) prior to scheduling the general exam.
- Scheduling the general exam upon completion of essentially all coursework (not before the last semester of coursework) with a detailed research proposal. PhD candidates are required to take their general exam within 15 months after they completely satisfy the requirements for the qualifying exam.
- Enrollment in the seminar course, ME 7901, every semester is a requirement; however, the seminar course attendance requirement is waived for any student, after the date when he/she has successfully defended his/her dissertation, or while he/she is participating in an out-of-state internship or out-of-state student exchange program under approval of his/her major professor. If this condition is met for an entire semester, the registration requirement is waived.
- Presenting a seminar before graduation, discussing the major results of the research at a regular meeting of the ME graduate student seminar and/or in the Graduate Student Research Conference(s).

The student must pass a general/qualifying/final exam consisting of a dissertation and comprehensive oral exam. At the discretion of the student's advisory committee, a written exam may be required.

# Music (Graduate Program)

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

The School of Music is committed to the charge of LSU's Strategic Plan 2025—Leading Louisiana; Impacting the World. The Plan comprises "six strategic challenges to guide ongoing efforts in our pursuit of discovery, diversity, engagement, and learning." Advancing Arts and Culture is the first of those strategic challenges, one that both acknowledges historical excellence in and ongoing reliance on the School of Music as a main player in influencing the way forward.

The School of Music is committed to the education and training of performers, researchers, scholars, teachers, and composers for careers as professionals and leaders. The full range of opportunities for student and faculty collaboration in a large and vibrant School of Music, which connects to the local and regional performing arts community, elevates discovery, diversity, engagement, and learning.

The School of Music at LSU has a tradition of placing its graduates in positions as professors at leading institutions of higher learning, as leaders of organizations in the creative arts, as performers in professional ensembles, and as contributors to the creative economy in new and emerging fields. Acceptance into and enrollment in a graduate program at LSU places students into a cadre of faculty scholars, creators, researchers, performers, and talented peers. Opportunities are presented to develop transferable skills that enhance access to traditional positions in the creative arts. But perhaps more importantly is the ability to become involved in emerging areas fueled by societal, economic, and global shifts. Aligning current curricula with emerging possibilities in communication, technology, pedagogy, and entrepreneurism is at the core of education in the School of Music.

Opportunities are provided for performance with such major ensembles as the Symphony Orchestra, the Wind Ensembles, the Jazz Ensembles, the A Cappella Choir, and LSU Opera. Electronic studios and laboratories enhance composition and research endeavors, and the full resources of Middleton Library as well as the university's Special Collections provide materials for

research supporting academic pursuits. Additional special events, such as an extensive program of guest artists and scholars, bring to campus world-renowned virtuosos and intellectuals, and as such, extend our reach.

### Administration

Todd Queen, Dean, College of Music & Dramatic Arts

Kristin Sosnowsky, Executive Associate Dean, College of Music & Dramatic Arts

James Byo, Director, School of Music

Joseph Skillen, Associate Dean for Graduate Studies

TELEPHONE	225-578-3261
FAX	225-578-2562
E-MAIL	cmdagradstudies@lsu.edu
WEBSITE	http://www.music.lsu.edu

#### Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Applicants for admission to graduate programs in the School of Music must meet all the requirements of the Graduate School. The Graduate Record Examination (GRE) is required for all doctoral programs, but not for the masters programs in music.

Admission to the graduate program in performance is based on an audition and interview. Applicants for degrees in composition must submit musical scores for review prior to consideration of admission. Applicants in music theory, musicology, and music education must submit examples of research and schedule an interview with faculty prior to consideration of admission. For a detailed description of all admission requirements, please see the school website.

### **Financial Assistance**

All applicants are eligible for a graduate assistantship and other financial assistance if available. Assistantships may involve teaching, research, or service. Notification of assistantship and other financial assistance awards are usually made in March for the following academic year. Assistantship awards range from \$7,200 (10-hrs/wk) to \$11,300 (20-hrs/wk). The value of a 20-hr assistantship for a non-resident with stipend, tuition exemption, and out of state fee waiver is approximately \$40,000. Nomination of applicants who qualify for fellowship consideration will be made by the major professor in the area of concentration and the Associate Dean for Graduate Studies.

### **Graduate Faculty**

(check current faculty listings by department here)

Jesse Allison (M) • Electronic Music/Digital Media Lori Bade (M) • Voice Inessa Bazayev (M) • Music Theory Stephen David Beck (M) • Electronic Music/Digital Media Hana Beloglavec (A) • Trombone Edgar Berdahl (A) • Electronic Music/Digital Media Michael Borowitz (M) • Opera Brett Boutwell (M) • Musicology Jason Bowers (F) • Music Education James Byo (M) • Music Education Griffin Campbell (M) • Saxophone Jane Cassidy (M) • Music Education Deborah Chodacki (M) • Clarinet Dinos Constantinides (M) • Composition Nick Trey Davis (A) • Choral Studies Willis Delony (M) • Jazz Studies, Piano John Dickson (M) • Choral Studies Brett Dietz (M) • Percussion Mara Gibson (M) • Composition Andreas Giger (M) • Musicology Elias Goldstein (M) • Viola Michael Gurt (M) • Piano Darrel Hale (A) • Bassoon Terry Patrick-Harris (F) • Voice Lin He (M) • Violin Brandon Hendrickson (A) • Voice Blake Howe (M) • Music Theory Dan Isbell (M) • Music Education Dennis Jesse (M) • Voice Kelvin Jones (F) • Bands Katherine Kemler (M) • Flute Espen Lilleslatten (M) • Violin Dennis Llinas (M) • Bands Dugg McDonough (M) • Opera Alison McFarland (M) • Musicology Sandra E. Moon (A) • Voice Seth Orgel (M) • Horn Ana Maria Otamendi (A) • Collaborative Piano Dennis Parker (M) • Cello Robert Peck (M) • Music Theory Johanna Pennington (M) • Oboe Jeff Perry (M) • Music Theory Pamela Pike (M) • Piano Pedagogy Todd Queen (M) • Dean Carlos Riazuelo (M) • Orchestral Studies Brian Shaw (M) • Trumpet, Jazz Studies Loraine Sims (M) • Voice Gregory Sioles (M) • Piano Joseph Skillen (M) • Tuba/Euphonium Ann Marie Stanley (M) • Music Education Doug Stone (A) • Jazz Studies Damon S. Talley (M) • Bands Matthew Vangjel (A) • Trumpet

Yung-chiao Wei (M) • Double bass Justin West (A) • Music Education

### **Performance Ensembles**

Performance opportunities in the School of Music are enhanced by many excellent ensembles, including the following:

- LSU Symphony Orchestra, LSU Philharmonia
- LSU Wind Ensemble, Symphonic Winds, Symphonic Band
- LSU Opera
- LSU A Cappella Choir, Chamber Singers, LSU Chorale, LSU Tiger Glee Club, Gospel Choir
- LSU Jazz Ensembles
- Constantinides New Music Ensemble
- LSU Laptop Orchestra
- Various Chamber Ensembles

### **Faculty Research and Creative Activity**

Faculty members of the School of Music are recognized for their contributions in numerous areas of research and creative activity at national and international levels. They author books, chapters in edited books, critical editions, and articles in major research journals. They present research and scholarship at noted conferences. They perform in solo recital, chamber music settings, with orchestral and choir, on the opera stage, and in feature roles for society/congress meetings and music festivals. Our composers publish and have their music performed extensively by professionals, in university venues, and at festivals of new music. Our conductors lead ensembles in professional, university, and high-level amateur settings. Whether performer, composer, or conductor, much of the work is captured on CD and published under respected recording labels.

Our faculty are heavily ensconced in the inner workings of research and scholarship—as editors and reviewers for the prominent research journals and chairpersons of professional organization or subsets within. They are featured as master class clinicians and adjudicators. Influenced thusly, graduate students are engaged likewise—in research, as published authors, as conference presenters, and in performance competitions, summer festivals, and auditions for roles or membership in performing arts organizations.

On the basis of their research and performance activity, our faculty are respected authorities in a number of subject matter areas within music education, piano pedagogy, and electronic music and digital media. We are known for expertise in the works of Giuseppe Verdi; the music of Russian and Soviet composers; music and disabilities studies; and the design of contemporary applied music curricula.

#### Music, D.M.A.

#### (DMUS)

DMA

Doctor of Musical Art concentrations are Brass Performance, Choral Conducting, Orchestral Conducting, Organ Performance, Percussion Performance, Piano Performance, String Performance, Vocal Performance, Wind Conducting, and Woodwind Performance.

The Doctor of Musical Arts degree at LSU requires a minimum of 60 credit hours of graduate coursework. Up to six hours of graduate credit may be transferred from another institution if such credit satisfies required or elective coursework at LSU and is approved by the area faculty. The DMA degree must be completed within seven years. The majority of the required coursework

will be selected from courses at the 7000 and 9000 levels with minimal number of credit hours selected from 4000 level courses that carry graduate credit.

The options of Monograph (MUS 9009), Lecture Recital with Written Document (MUS 9010), Non-thesis Project are available for all DMA degrees. Additional information regarding the specifics of each Doctor of Musical Arts degree offered may be found in the School of Music Graduate Handbook by accessing the school's website.

#### Music, M.M.

#### (MMUS)

Master's Programs

Concentrations at the Master's level are Brass Performance, Choral Conducting, Collaborative Keyboard, Composition, Jazz Studies, Music Education, Music Theory, Musicology, Orchestral Conducting, Organ Performance, Percussion Performance, Piano Pedagogy, Piano Performance, String Performance, Vocal Performance, Wind Conducting, and Woodwind Performance.

The Master of Music degree at LSU requires a minimum of 30 credit hours of graduate course work. Up to six hours of graduate credit may be transferred from another institution if such credit duplicates required or elective courses at LSU and is approved by the Area Coordinator of the course subject. The master's degree must be completed within five years. The majority of the required course work will be selected from courses at the 7000 level with minimal number of credit hours selected from 4000 level courses that carry graduate credit.

Thesis and non-thesis options for the Master of Music degrees in Music Education, Music Theory and Musicology are available for selection with the permission of the student's major professor. If the thesis option is selected, the student will register for six credit hours of MUS 8000. For the non-thesis option, six credit hours of additional coursework is required. There is no non-thesis option in Composition.

Additional information regarding specifics of each master's degree offered may be found in the School of Music Graduate Handbook by accessing the school's website.

#### Music, Ph.D.

#### (PMUSC)

PhD concentrations are Composition, Experimental Music & Digital Media, Music Education, Musicology, and Music Theory.

The Doctor of Philosophy degree at LSU requires the following minimum number of credit hours of graduate coursework for each of the following specializations:

**Composition:** 48 hours beyond a 30-hour master's degree in music. This degree is offered to students who show promise as outstanding composers.

**Experimental Music & Digital Media:** 60 hours beyond a 30-hour master's degree in music. This degree is designed to prepare students to be composers, performers or music researchers whose work explores music technology, digital media and experimentation in either professional or academic settings. Graduates will also be prepared to teach electroacoustic music, digital media and music technology at the college-university level.

**Music Education:** 53 hours beyond a 30-hour master's degree in music. This degree is offered to students who show promise as outstanding researchers and master teachers of music. The degree is awarded to candidates who complete the course of study with distinction, demonstrating outstanding ability in original research, scholarly study, and excellence in teaching.

**Music History:** 51 hours beyond a 30-hour master's degree in music. This degree is intended to develop in students the knowledge, concepts, and techniques for musicological research and to prepare students for teaching music history at the college/university level.

**Music Theory:** 51 hours beyond a 30-hour master's degree in music. This degree is intended to develop in students the knowledge, concepts, and techniques for research in music theory and to prepare students for teaching at the college/university level.

The Doctor of Philosophy degree must be completed within seven years. The majority of the required coursework will be selected from courses at the 7000 level with minimal number of credit hours selected from 4000 level courses that carry graduate credit. The dissertation is required for all PhD degrees and requires a minimum of nine credit hours of MUS 9000.

Additional information regarding specifics of each Doctor of Philosophy degree offered may be found in the *School of Music Graduate Handbook* by accessing the school's website.

# **Interdisciplinary Program in Natural Sciences (Graduate Program)**

# **Program Overview**

The Master of Natural Sciences (MNS) degree, administered through the Graduate School in conjunction with the College of Science, provides the depth and breadth of study in the sciences that is required of science professionals and school teachers. The MNS program allows a combination of coursework from allied fields. For instance, certified teachers seeking the MNS can tailor their Plan of Study to include courses needed for add-on certifications in additional subject areas, or professionals in STEM intensive areas (e.g., medical technology, pre-med, forensics, environment, and computation in science) may take an array of courses to enhance their job capabilities.

# Administration

Guillermo Ferreyra, Associate Dean, College of Science

TELEPHONE	225-578-4334
FAX	225-578-8826
E-MAIL	dnferr@lsu.edu

# Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

# **Graduate Faculty**

(check current faculty listings by department here)

The graduate faculty for the MNS program includes all graduate faculty in the following cooperating departments and schools:

- Animal Science
- Biological Sciences
- Chemistry
- School of Electrical Engineering and Computer Science
- School of Education
- Entomology
- Environmental Sciences
- Geography & Anthropology
- Geology & Geological Sciences
- Mathematics
- Oceanography & Coastal Sciences
- Plant, Environmental & Soil Sciences
- Physics & Astronomy
- Plant Pathology & Crop Physiology
- Renewable Natural Resources

#### Natural Sciences, M.N.S.

#### (MNS)

Both a non-thesis and thesis option are available. A student in the MNS program must develop, by the end of the second semester or upon completion of 15 or more hours of credit, a Plan of Study together with an advisor in the College of Science that must have approval of the MNS program administrator.

# Non-Thesis Option: The non-thesis option must include at least 36 semester hours of graduate courses distributed as follows:

- at least 18 semester hours must be in a primary focus area in a natural science or mathematics in a cooperating department marked with an asterisk\* below
- to provide breath of knowledge, at least 6 hours of electives have to be taken in fields closely related to the focus area, but not necessarily within the focus area or within the cooperating departments and schools
- at most 12 hours can be taken in a secondary area that supports a cohesive plan of study and the professional and academic goals of the student. The courses in the secondary area must be offered by a cooperating department or school (see listing below).

At least 18 of the total 36 semester hours must be in courses numbered 6000 or above and six of these 18 must be in the focus area. Courses below the 4000-level cannot be counted. Courses at the 4000-level can be counted only if they are taken as graduate courses. Although a modest number of hours in independent study or research courses are allowed, a student may not apply thesis research (8000) hours to this degree track. A comprehensive final oral exam administered by the student's committee is required to complete the degree.

Thesis Option: Requirements for the thesis option include 24 semester hours of graduate course work, and six semester hours of thesis credit. Of the 24 hours of graduate course work:

- at least 9 must be at or above the 6000 level
- at least 12 must be in a primary focus area in a natural science or mathematics in a cooperating department marked with an asterisk\* below
- at most 12 hours can be taken in a secondary area that supports a cohesive plan of study and the professional and academic goals of the student. The courses in the secondary area must be offered by a cooperating department or school (see listing below).

The thesis must be directly related to the focus area. The final oral exam will include a defense of the thesis.

#### **Participating Departments**

Animal Science\* Biological Sciences\* Chemistry\* School of Electrical Engineering and Computer Science School of Education Entomology\* Environmental Sciences\* Geography & Anthropology\* Geology & Geological Sciences\* Mathematics\* Oceanography & Coastal Sciences\* Physics & Astronomy\* Plant, Environmental & Soil Sciences\* Plant Pathology & Crop Physiology\* Renewable Natural Resources\*

### Nutrition and Food Sciences (Graduate Program)

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

The School of Nutrition and Food Sciences offers advanced studies in food chemistry, food quality, product development, byproduct utilization, food safety, foods for health and combating effects of obesity, food microbiology, sensory analysis and consumer research, and nutrition and food biotechnology. Students may also study specific foods such as seafood, rice, dairy products, sweet potato, peppers, meat, or others. Training and research in the basic sciences of biology, physics, and chemistry, and the natural sciences of biochemistry, microbiology, toxicology, and engineering are incorporated into graduate studies which allow specialization in specific areas of student interest.

The department is well equipped with research laboratories for food chemistry, food microbiology, food analysis, tissue culture/hybridoma, food engineering, nutrition and processing, and computerized sensory analysis. Pilot food processing facilities have freezing, mixing, forming, mince recovery, batter and breading, packaging, and other processing equipment. Other LSU units such as the Schools of Animal Sciences; Human Ecology; Plant, Environmental & Soil Sciences; Veterinary Medicine; and Renewable Natural Resources; the Departments of Biological & Agricultural Engineering and Oceanography & Coastal

Sciences; Audubon Sugar Institute; and Pennington Biomedical Research Center also provide faculty expertise and laboratories for analysis and pilot processing activities for food.

### Administration

Allen Rutherford, Interim Director	
Marlene Janes, Graduate Coordinator	
TELEPHONE	225-342-5812
FAX	225-342-0027
WEBSITE	http://www.lsu.edu/departments/nfs/index.htm#p1

## Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Applications for admission are received and evaluated by the school for each semester (fall, spring, summer). Applicants must adhere to the application deadlines established by the Graduate School.

Students seeking admission must submit satisfactory credentials from previous study, have a minimum of 150 verbal GRE score and 150 quantitative GRE score, three letters of recommendation that describe the student's ability to pursue graduate studies in food or nutrition science, and a statement of purpose or interest in the desired specific area of food or nutrition science. The statement of purpose satisfies the writing sample requirement for admission. International students whose native language is not English must also submit TOEFL, IELTS, or PTE scores that meet the Graduate School minimum requirements.

When all admission requirements are met and documents have been submitted, full admission will be considered by the school's graduate faculty members. Final admittance to the program must be supported by a member of the school's graduate faculty, who serves as the student's major advisor. If a student does not meet all requirements, he or she may be admitted provisionally (e.g., on probation if the GPA is not 3.0 or higher or if the GRE is not 1000 or higher). Students are admitted for fall, spring, and summer semesters, but admission depends upon the availability of space in the program of each individual professor. The lack of space in a program is sufficient justification to deny admission of an applicant.

# **Financial Assistance**

Financial assistance may be available for students. Support may be available through the school or other units in the form of research or teaching assistantships. Financial assistance is on a competitive basis so early applications are encouraged. Each professor determines the availability of space and financial assistance for the graduate students in his/her program. Students on assistantship receive full tuition waivers but are responsible for university fees, insurance, and other costs. To ensure consideration for financial aid, all application materials should be submitted as early as possible before the actual admitting semester. The deadlines for admission are in March for the fall semester and in October of the previous year for the spring and summer semesters.

# **Graduate Faculty**

(check current faculty listings by department here)

Achuyt Adhikari (3F) • Food microbiology and safety, environmental monitoring and control of food borne pathogens, thermal and non-thermal processing-effects on microbial food safety

Giovanna Aita (M) • Biomass conversion, antimicrobials for food, characterization of antimicrobial resistant bacteria Donal F. Day (M) • Industrial microbiology, polysaccharide production and industrial enzymology, biofuels

John W. Finley (3F) • Low calorie ingredients and functional foods mediating impacts of obesity, low calorie carbohydrates and lipids causing caloric dilution in foods, bioactive ingredients influencing fat deposition, antiinflammatory food formulations influencing effects of obesity and diabetes

Elizabeth Gollub (3F) • Diet and lifestyle strategies, "small changes", and habit formation techniques; evaluation of communitybased healthy eating and physical activity programs

Denise Holston (3F) • Community-based approaches to obesity prevention in rural communities; policy, systems and environment change strategies for obesity prevention; develop and test interventions to address healthy eating among low-income adults and children.

Marlene Janes (M) • Food microbiology and safety; detection, control, and prevention of foodborne pathogens in food products Aryana Kayanush (M) Functional dairy foods; probiotics and probiotic properties; culture bacteria and their attributes for food manufacturing and quality; non-thermal processing technologies.

Michael J. Keenan (M)

Joan King (M) • Food chemistry and safety, ingredient development with sweet potato and rice components especially resistant starch, oxidation products in processed and stored foods, aflatoxin in grains and nuts, off-flavors in catfish, ozone processing Carol J Lammi-Keefe (M) • Omega-3 fatty acids in pregnancy and development, diabetes, postpartum depression, obesity, Functional foods

Jack Losso (M) • Food chemistry and biochemistry, protein biotechnology, recovery of bioactive compounds for food and biomedical applications, bioavailability and molecular basis of antiangiogenic dietary bioactive compounds, food fortification Roy J Martin (EM)

Erin McKinley (6A) • Survey instrument development; breastfeeding behaviors; breastfeeding self-efficacy among pregnant women and new mothers; using health behavior theory to create breastfeeding education programs for pregnant women. Carol Elliot O'Neil (M) • Diet and Health of Low Income Women, Food Security, Nutritional Epidemiology, Community Nutrition, Scholarship of Teaching and Learning

Witoon Prinyawiwatkul (M) • Sensory analysis and consumer acceptance of foods and beverages, new and value added food product development, functional/physical-chemical characteristics of food ingredients

Diane Sasser (M) • Systems Approach to Childhood Obesity Prevention

Subramaniam Sathivel (M) • Food engineering with emphasis on design and development of food processing unit operations; preservation and packaging of foods (coatings, edible films, microencapsulation); thermal, rheological, and functional properties of ingredients and foods; development of nonfood materials from biological wastes including biodiesel

Georgianna Tuuri (M) • Examines food preferences and develops and tests nutrition and exercise interventions to promote healthy diets and active lifestyles, conducts community-based research with children and caregiver

Louise Wicker (M) • Food Chemistry, especially pectin chemistry and pectic enzymes, foods for health, valorization of fruits and vegetables to increase consumption, identifying barriers to healthy food choice, innovation through private – public collaborations

Watts, Evelyn (6A) • Seafood quality and safety. Applied research to promote and develop technologies to improve Louisiana Seafood Industry by enhancing quality, product development, co-product recovery, shelf-life, and promoting underutilization of invasive species.

Wenqing Xu (6A) • Food microbiology and Food safety. Practical research focusing on consumer food safety Zhimin Xu (M) • Food micro constituent analysis, extraction and characterization of functional food components, evaluation of health benefits of functional components using chemical and biological models

#### Nutrition and Food Sciences, M.S.

(SNFS)

The school-level academic course plan for each student will be developed in consultation with the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

The MS degree is a research degree requiring a thesis. A minimum of 30 hours of credit at the graduate level must be earned including at least six hours of credit for the thesis (NFS 8000). The curricular requirements include:

The minimum requirement for the M.S. degree in Nutrition and Food Sciences is 24 semester hours of graduate credit (exclusive of credits in NFS 8000) plus 6 credits for thesis research (NFS 8000). The following courses or evidence of their equivalency determined by the full advisory committee must be completed for the master's degree in Nutrition and Food Sciences:

Core Courses (to be taken by all M.S. students):

- NFS 7022 Current Controversies in Food and Nutrition 3 hours
- NFS 7071 Seminar in Nutrition and Food Sciences 2 hours
- EXST 7003, 7004, or 7005 4 hours
- NFS 8000 6 hours
- Concentration Courses or Electives 15 hours
- 30 hours

Other degree requirements are submission of an oral and written research proposal to the advisory committee. The advisory committee must be chosen and approved by the school head and graduate coordinator within one year of enrollment in the graduate program. The first graduate seminar for credit should be an oral presentation that gives an introduction and brief literature review on the proposed research area and an outline of the proposed research to be conducted for the MS.

Students must have submitted one manuscript to a scientific journal and presented their research at one national meeting before graduation. Students are expected to attend all school seminars (graduate, faculty, and invited speakers) whether enrolled for credit or not.

Students must present a public oral seminar on the thesis research before the final exam. A student must pass a comprehensive final oral examination by the student's advisory committee on food science topics and the completed research area.

#### Nutrition and Food Sciences, Ph.D.

#### (PNFS)

The school-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least three additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

The PhD degree is a research degree requiring a dissertation. A minimum of 30 hours of credit at the graduate level for students with an MS degree or 60 hours of credit at the graduate level for students with a BS degree must be earned, with a minimum of nine hours of credit for the dissertation project (NFS 9000). The curricular requirements include:

- Demonstration of competency in core areas of food science, including food chemistry, food preservation, food composition and analysis, and food microbiology through previous course credits in these areas or through passing of a comprehensive examination given by the instructor in each area
- Three hours of NFS 7071 Seminar in Nutrition and Food Sciences (1), nine hours of NFS 9000 Dissertation Research (1-12 per sem.), and a minimum of 18 hours of electives in 7000 level courses in addition to the 30 hours of coursework required for MS students in food science

• All coursework including electives approved on the departmental-level academic course plan by the student's advisory committee

The minimum requirement for the Ph.D. degree in Nutrition and Food Sciences is 48 semester hours of graduate credit (exclusive of credits in NFS 9000) plus 9 credits for dissertation research (NFS 9000). At least one-third of credits toward a graduate or a post-baccalaureate professional degree must be earned through instruction offered by the institution awarding the degree. Graduate credit is not allowed for courses numbered below 4000 or for correspondence courses. The following courses or evidence of their equivalency determined by the full advisory committee must be completed for the doctoral degree in

Nutrition and Food Sciences:

Core Courses (to be taken by all Ph.D. students):

- NFS 7022 Current Controversies in Food and Nutrition 3 hours1
- NFS 7071 Seminar in Nutrition and Food Sciences 3 hours2
- EXST 7013, 7014, or 7015 4 hours
- NFS 9000 9 hours
- Concentration Courses or Electives 35 hours

#### 54 hours

Other degree requirements are submission of an oral and written research proposal to the advisory committee. The advisory committee and school-level academic course plan that lists the proposed coursework must be approved by the school head, graduate coordinator, and the Graduate School by the end of the first year of enrollment in the PhD program. The first graduate seminar for credit should be an oral presentation that gives an introduction and brief literature review on the proposed research area and an outline of the proposed research to be conducted for the PhD. Students must have one manuscript accepted for publication by a scientific journal, submitted an additional manuscript to a scientific journal, and presented their research at two national meetings before graduation. Students are expected to attend all school seminars (graduate, faculty, and invited speakers) whether enrolled for credit or not. Students are required to assist professors in course(s) of interest for at least two semesters. Doctoral students are encouraged to choose a minor degree area and an industry or governmental internship.

Students in the PhD program must pass a rigorous general exam at the culmination of the coursework to demonstrate adequate academic and professional aptitudes to the advisory committee. The exam on coursework, general knowledge, and critical thinking ability must be taken within three years of enrollment in the PhD program. The committee may determine that additional coursework is necessary to correct deficiencies exhibited by the student in the examination. The Graduate School reviews the program of study to ensure all departmental course requirements are met.

After completion of research and writing of the dissertation, students must present a public oral seminar on the dissertation research before the advisory committee administers the final examination. The student must pass a final comprehensive oral examination from the advisory committee on the completed research topic and have met all other degree requirements to receive the doctoral degree.

# **Oceanography & Coastal Sciences (Graduate Program)**

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

The Department of Oceanography & Coastal Sciences (DOCS) offers both Master of Science (MS) and Doctor of Philosophy (PhD) degrees in the disciplines associated with an understanding of oceanic, coastal, and wetland processes. Faculty in the department collaborate with scientists throughout the university including those in the departments of Biological Sciences, Geology & Geophysics, Geography & Anthropology, Civil & Environmental Engineering, Mechanical Engineering,

Environmental Sciences, and Experimental Statistics. Faculty members also consult with researchers in the Louisiana Universities Marine Consortium (LUMCON), Louisiana Sea Grant, and universities and research centers worldwide. These interactions assure the availability of a variety of major/minor graduate degree options.

The interdisciplinary and multidisciplinary nature of the field is stressed and graduate programs are sufficiently flexible to meet the needs of students. Emphasis is on understanding and practical application of knowledge concerning the physical, chemical, geological, meteorological, ecological, and fisheries aspects of environments identified as ocean, deltaic, estuarine, and wetland. The department has 35 faculty, 9 emeritus faculty, 19 adjunct faculty, and more than 70 graduate students whose diverse interests assure a well-rounded graduate experience. Through LUMCON, the department has access to modern, comprehensive field facilities and summer field courses. Logistical support for field work is available from the College of the Coast & Environment's Field Support Services and Coastal Studies Institute shops, which maintain a fleet of small boats and trucks and have fabrication facilities for the production of certain types of field equipment. Detailed information on departmental programs and faculty research interests may be obtained from our website or by contacting the department's graduate advisor.

#### Administration

Kam-Biu Liu, Professor and Chair

Charles Lindau, Professor and Graduate Advisor

Dana Sanders, Administrative Coordinator

TELEPHONE225-578-6308FAX225-578-5328E-MAILocean@lsu.eduWEBSITEwww.oceanography.lsu.edu

# Minors

Graduate students majoring in other departments may elect a minor in this department. Students must meet the academic prerequisites for the Oceanography & Coastal Sciences courses they select and complete 12 semester hours, nine of which must be in formal courses not cross-listed with other departments. Six of the 12 hours must be at the 7000-level or above. A DOCS faculty member must serve as the minor professor.

The department and the Department of Environmental Sciences jointly offer a minor in Wetland Science and Management that is open to all graduate students at LSU. This minor requires 12 hours of approved courses, provides masters and doctoral students with a strong background in wetland science and policy and enhances their understanding of ecosystem processes in wetland ecosystem management.

Students interested in the graduate minor in Coastal Meteorology should meet with the Program Director to design a Program of Study and fill out a Coastal Meteorology Program of Study form, to be kept on file with the Program Director. Courses must be clearly delineated as to which hours count as major coursework and which as minor coursework.

Graduate Students minoring in Coastal Meteorology complete 12 semester hours of coursework including:

- 3 hours of OCS 4013 required
- 9 hours from among OCS 4017, OCS 4019, OCS 4021, GEOG 4221, OCS 7170, and OCS 7175.

The courses may be completed in any order, but OCS 4013 is recommended to be completed first in the sequence.

# Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Applications for admission are received and evaluated by the department for fall, spring, and summer terms. Applicants must adhere to the application deadlines established by the Graduate School.

Students seeking admission must submit satisfactory credentials from previous study, acceptable scores, and three academic letters of recommendation. International students whose native language is not English must also submit an acceptable TOEFL, IELTS, or PTE score.

All Ph.D. and M.S. students are required to have successfully completed (grade of "C" or better) Calculus I and Calculus II. If an applicant has not completed these requirements by the time of enrollment in the Department of Oceanography and Coastal Sciences, they will be required to do so during their first year at LSU. However, it is advisable to have at least the first calculus course completed prior to enrollment. This requirement can be met by taking MATH 1550 (Analytical Geometry and Calculus I) and MATH 1552 (Analytical Geometry and Calculus II). For a course at another university to count as equivalent to LSU's MATH 1550, it should cover limits, differentiation, and integration, not only for algebraic functions, but also for exponential and trigonometric functions. MATH 1554 (Calculus II for Life Sciences) may be substituted from MATH 1552 with prior committee approval. For M.S. students who have not completed Calculus II by the time of enrollment, another quantitative focused course taken during their first year at LSU may be substituted for Calculus II with prior approval of their advisory committee (including but not limited to courses in math, statistics, modeling, computer sciences, etc.). A student may register for those courses on a pass-fail basis with approval of the student's major professor, department chair, instructor of the course involved, and the Dean of the Graduate School. The instructor will determine the actual quality of work required to obtain a grade of "P". Professional M.S. students (i.e., non-thesis track) are exempt from the above requirements.

# **Financial Assistance**

Financial assistance is available to some students. Support may be available through the student's home department or other units in the form of research or teaching assistantships which include a full waiver of tuition. A student should contact his or her home department for more information on available assistantship positions. To ensure consideration for financial aid, all application materials should be submitted in accordance with deadlines established by the LSU Graduate School. Outstanding MS and PhD applications can compete for Board of Regents Fellowships and Departmental Research/Teaching Assistantships. Full applications completed by mid-February will be considered for fellowships.

# **Graduate Faculty**

(check current faculty listings by department here)

Donald M. Baltz (EM) • Fish ecology, life history, and habitat selection; marine vertebrates; passive acoustics
Sibel Bargu Ates (M) • Phytoplankton ecology, harmful algal blooms and food web interactions
Mark Benfield (M) • Shrimp life history and ecology, zooplankton ecology, larval transport and dynamics
Robert S. Carney (M) • Biological oceanography, research administration
Russell Chapman (EM) • Algal ultra-structure and molecular evolution and systematics, algal biofuels, and marine biodiversity
James M. Coleman (EM) • Deltaic sedimentation, riverine processes, continental shelf sediments
James H. Cowan (M) • Fisheries ecology, biological and fisheries oceanography, biometrics
Christopher F. D'Elia (M) • Nutrient dynamics of estuaries and coral reefs; science policy
Eurico D'Sa (M) • Marine optics, remote sensing, interdisciplinary oceanography
Michael Dance (6A) • Movement ecology, fisheries science, population connectivity, stock assessment, seascape ecology,

habitat use, early life history of marine fishes

John W. Day, Jr. (EM) • Estuarine ecology, systems ecology, coastal management

Ronald Delaune (3F) • Biogeochemical cycling, wetland biogeochemistry, coastal processes, non-point source pollution, coastal restoration, soil-plant interactions

Robert P. Gambrell (EM) • Environmental chemistry of soils, sediment-water systems

Cassandra Glaspie (6A) • My research integrates laboratory, field, and modeling approaches to address the question: how does environmental change alter interactions between members of an ecological community, and what are the implications for humanity?

Shih-Ang Hsu (EM) • Coastal and marine meteorology, air-sea interaction

Haosheng Huang (M) • Physical oceanography, continental shelf and estuarine dynamics, numerical ocean modeling

Dubravko Justic (M) • Ecosystem modeling, biological oceanography, climate change

Chunyan Li (M) • Physical oceanography, observations and modeling

Junhong Liang (6A) • Physical oceanography, marine biogeochemistry and ecosystem dynamics, ocean modeling

Charles Lindau (M) • Environmental chemistry, stable isotopes, wetlands

Kam-Biu Liu (M) • Coastal paleoecology

Kanchan Maiti (M) • Marine geochemistry, Environmental radiochemistry, Upper ocean carbon flux, Marine particle dynamics Giulio Mariotti (6A) • Coastal morphodynamics, biota-sediment interactions, ecogemorphology, geobiology

Irving A. Mendelssohn (EM) • Wetland and barrier island plant ecology, plant physiological ecology

Stephen R. Midway (6A) • Fisheries Ecology, statistical models

Michael John Polito (6A) • Stable isotope ecology, food web dynamics, anthropogenic contaminants, ecology of marine birds and mammals and invasive species biology

Tracy Quirk (6A) • Wetland plant ecology

Nancy N. Rabalais (M) • Continental shelf ecosystems, benthic ecology

Victor Hugo Rivera-Monroy (M) • Estuarine and coastal ecosystems, biogeochemistry of wetlands, landscape

modeling/ecosystem models, mangrove forest rehabilitation/restoration

Harry H. Roberts (EM) • Marine geology, sedimentology

Robert Rohli (M) • Coastal weather and climate, atmospheric circulation variability, atmospheric hazards, tropical cyclone dynamics, surface-atmosphere interactions, synoptic meteorology and climatology, living-learning communities, geoscience education, history of science

Charles E. Sasser (3F) • Wetland Plant Ecology and Wetland Management

Richard F. Shaw (EM) • Ichthyoplankton ecology and dynamics, transport and recruitment mechanisms

Malinda M. Sutor (3F) • Plankton ecology and physiology, biooptics, bioacoustics, physical-biological interactions

R. Eugene Turner (M) • Biological oceanography, conservation, environmental management, estuarine ecology, wetlands

Robert R. Twilley (M) • Ecosystem ecology, estuarine and coastal macrophyte communities, ecology and management of tropical estuarine ecosystems, mangrove ecosystems

Nan Walker (M) • Satellite oceanography, ocean climatology, physical oceanography

John R. White (M) • Biogeochemical cycling of nutrients in estuaries, coastal, and freshwater wetlands

Kehui Xu (M) • Coastal processes, sediment transport, sedimentology, and sequence stratigraphy

Zuo Xue (6A) • Coupled ocean-wave-sediment transport modeling, hydrology, and delta evolution

#### **Fisheries Science and Assessment Graduate Certificate**

#### (CFSA)

The purpose of the Graduate Certificate Program in Fisheries Science and Assessment is to further train professionals (post baccalaureates) already in the workforce and to enhance the education of LSU graduate students by providing a set of specific courses tailored to current issues in fisheries science and management. Upon completion of the certificate, the students will have multi-disciplinary training in fisheries science and assessment, which is in high demand in government and private industry such as environmental consulting.

Students will be required to take 18 hours of courses, including three (9 credits) required courses. The electives will be from at least three of five topic areas (resource management, resource economics, human dimensions, quantitative methods, and fish ecology) to ensure the breadth of their training, but can be tailored to the specific interests of the student.

All students in the program will be required to take an FSAC Capstone Course (3 credits). The course will vary in emphasis from week to week and year-to-year depending upon current issues. All students working to complete the certificate must enroll in the capstone class designed to encourage exchange of ideas across disciplines. Students will be required to prepare a written document and make an oral presentation to enhance their communication skills.

For further information, please contact the Department of Oceanography & Coastal Sciences at 225-578-6308 or ocean@lsu.edu.

#### **Oceanography & Coastal Sciences, M.S.**

#### (SOCS)

The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

The degree is a thesis degree. Twenty-four hours of coursework at the graduate level must be earned including a maximum of six hours of credit for the thesis research project for a grand total of 30 credit hours. The curricular requirements include:

- At least 12 of the 24 hours of course work must be at the 7000 level or above
- A primary area consisting of a minimum of 12 hours of earned credit in a specified field of study
- One credit hour of OCS 4030
- A minimum core requirement of 12 credit hours, with grades of "B" or higher, in biological, chemical, geological and physical oceanography. A student receiving a "C" may be allowed to repeat the course only once, or be dropped from the graduate degree program.
- A 36-hour non-thesis option is also available

The 36-hour professional option (non-thesis) curricular requirements include:

- Students on this track are required to earn 36 hours pass the bachelor's degree
- A minimum of 18 hours in courses numbered at or above 7000
- 6 hours of departmental core courses or approved substitutions
- 9 hours of advanced course work in DOCS specialized area
- 9 hours in a minor field outside the Department of Oceanography and Coastal Sciences
- At least 3 semester hours of advanced field or literature research based on internship or a team project (e.g. OCS 8900, OCS 8901) which demonstrates the student's ability to synthesize data and demonstrates acceptable writing skills.
- 9 hours of electives (within or outside of the department)
- A student must pass a final exam, both oral and written, to be given by the Student's Advisory Committee
- During the last semester, professional students must deliver an oral public presentation of a written research report from the internship or team project; one copy must be turned into the DOCS office prior to graduation.

The student (thesis or professional) must pass a final exam consisting of a comprehensive oral exam and an optional written exam.

#### **Oceanography & Coastal Sciences, Ph.D.**

(POCS)

The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

The degree is a PhD degree. Forty-eight hours of coursework at the graduate level must be earned including a maximum of nine hours of credit for the dissertation research project for a total of 57 credit hours. The curricular requirements include:

- At least 29 hours at the 7000 level or above.
- A minor consisting of a minimum of 12 hours of earned credit in a specified field of study.
- A minimum core requirement of 12 credit hours, with a grade of "B" or higher, in biological, chemical, geological and physical oceanography. A student receiving a "C" may be allowed to repeat the course only once, or be dropped from the graduate degree program.
- Other specific degree requirements include one credit hour of OCS 4030.

The student must pass a final exam consisting of a comprehensive oral exam and an optional written exam.

# **Pathobiological Sciences (Graduate Program)**

# **Program Overview**

The graduate academic and research programs of the Department of Pathobiological Sciences (PBS) are designed to develop intellectual abilities and research skills through investigations of infectious diseases of humans and animals. The interdisciplinary faculty—with expertise in molecular biology and biotechnology of infectious diseases, bacteriology, parasitology, immunology, virology, vector borne diseases, epidemiology, and pathology—along with well-equipped laboratories and animal facilities, provide a stimulating environment for graduate training.

Depending upon their interests, students choose courses with an emphasis on immunology and molecular virology, bacterial or viral pathogenesis, parasitology and parasite-induced diseases, or epidemiology and community health. Communication skills are fostered through active research discussion groups, interdisciplinary seminars, oral examinations, presentation of papers at scientific meetings, and publication of research findings. This academic and scientific program develops scientists who are able to contribute to the improved health of humans as well as food producing, companion, laboratory, and aquatic animals.

The department offers a residency program along with a graduate degree program in both anatomic pathology and clinical pathology. A residency program in laboratory animal medicine is available through the Division of Laboratory Animal Medicine within the School of Veterinary Medicine.

### Administration

John Hawke, Interim HeadJuan Martinez, Graduate AdvisorTELEPHONE225-578-9684FAX225-578-9701E-MAILpbsgrad@vetmed.lsu.eduWEBSITEhttps://www.lsu.edu/vetmed/pbs/index.php

# Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Applications are accepted at any time but are evaluated only after all supporting documents and credentials have been received. Application should be initiated at least six months prior to anticipated entry. By the time of admission, applicants should have earned a minimum of a baccalaureate degree that includes training in general biology, microbiology, biochemistry, genetics, and inorganic, organic, and analytical chemistry. Statistics is also recommended.

Students must meet the acceptance criteria outlined by the LSU Graduate School and the following PBS requirements (GPAs are rounded to nearest tenth). Applicants must score at least 150 on both the verbal and quantitative portions of the GRE and have an overall GPA of at least 3.2 or at least 154 on both the verbal and quantitative portions of the GRE and a GPA of 3.0. Non-English speaking foreign nationals must have a TOEFL score of at least 550 on the paper-based test, 213 on the computer-based test, or 79 on the Internet-based test, an IELTS score of at least 6.5, or PTE score of at least 59. Application must include a curriculum vitae, statement of interest, transcripts, GRE scores, TOEFL/IELTS/PTE scores (for international students), and three letters of reference.

### **Financial Assistance**

Stipends, fellowships, and assistantships from various sources are available on a competitive basis for both masters and doctoral students. Applicants seeking stipend support should submit their application by **February 1** for matriculation in the fall semester and **September 1** for the following spring semester.

### **Graduate Faculty**

(check current faculty listings by department here)

Linda B. Adams (3F) • Immunology of mycobacterial infections

Joel D. Baines (M) • Virology, molecular biology and pathogenesis of herpes virus

David G. Baker (M) • Laboratory animal medicine, infectious diseases of laboratory animals, cost accounting in animal facilities Michael Behnke (6A) • Developmental regulation of the medically relevant parasite Toxoplasma gondii, from the rapidly growing tachyzoite, to the slow growing bradyzoite cyst, through to the enteric/sexual stages. This includes new in vitro approaches to study host-parasite biology of the enteric stages that occur within the intestines of definitive hosts. Annadora Bruce-Keller (3F) • Pathology

Shafiqul Chowdhury (M) • Molecular virology, neurovirology, neuro-pathogenesis and recombinant herpes virus vaccine technology

Rebecca Catherine Christofferson (6A) • expertise is in infectious disease transmission, quantitative methodologies for surveillance & transmission modeling, & data communication

Fabio Del Piero (M) • Pathology comparative pathology and infectious diseases with emphasis on viral disease and zoonotic agents

Patricia L. Dorn (3F) • Population genetics of parasite vectors

Maria Antonieta Guerrero-Plata (M) • Viral immunology, focused on innate immunity, dendritic cells and respiratory viruses John P. Hawke (M) • Aquatic animal health and bacterial pathogenesis, infectious diseases of aquatic animals, emerging infectious diseases of culture marine and freshwater fish and crustaceans Martin Hugh-Jones (EM)

Samithamby Jeyaseelan (M) • Immunology/Infectious disease, pulmonary inflammation and host defense against bacterial pathogens

Konstantin Gus Kousoulas (M) • Virology and biotechnology, molecular biology and pathogenesis of herpes virus and coronaviruses, application of viral vectors for gene therapy, development of DNA-based methods for diagnosis of infectious

disease pathogens and genetic diseases

Ingeborg Langohr (M) • Inflammatory response in neoplastic and infectious diseases through use of both spontaneous and induced animal models

Kevin R. Macaluso (M) • Vector-borne diseases, rickettsial pathogenesis, ecology of tick-and flea-borne rickettsial diseases and how the interactions between arthropods and rickettsiae facilitate pathogen transmission

John B. Malone (M) • Veterinary parasitology, use of geographical information systems (GIS) to detect distribution of parasites and control parasitic and vector-borne diseases

Juan J. Martinez (M) • Adherence of rickettsia to host cells: identification of mammalian receptors for rickettsia adherence. James E. Miller (M) • Epidemiology, alternative strategies for controlling gastrointestinal nematode parasitism in ruminants,

identification of genetic markers for nematode resistance in sheep

Christine B. Navarre (M) • Nutrition infectious diseases and husbandry of small ruminants

Daniel B. Paulsen (3F) • Veterinary Pathology, Bovine respiratory disease (shipping fever), especially the pathogenesis and immunity of disease caused by Mannheimia haemolytica; research using a murine model of asthma and a murine model of neurovirulence in herpes viruses

Karin E Peterson (3F) • Neuropathogenesis of retroviral infections

Alistair J. Ramsay (7M) • Vaccine development and gene therapy

Alma Faye Roy (3F) • Laboratory diagnosis of infectious diseases as related to animal disease agents and public health, with emphasis in molecular diagnostic medicine

Kem B. Singletary (3F)

Ronald L. Thune (M) • Aquatic animal health and bacterial pathogenesis, infectious diseases of aquatic animals, vaccine development in channel catfish and striped bass

Nobuko Wakamatsu Utsuki (3P) • Pathology, pathogenesis of infectious disease pathogens, avian diseases

Diana L. Williams (3P) • Bacterial Pathogenesis

Weishan Huang (6A) Immunology

#### **Degree Programs**

This department offers the MS and PhD in Biomedical and Veterinary Medical Sciences with an emphasis in Pathobiological Sciences. Exceptional students may work toward the PhD without first earning an MS. Complete course requirements for the MS and PhD degrees in the Pathobiological Sciences are stated in a document titled "Graduate Program Guidelines" that is provided to each prospective student admitted to the program. This document is available for download on the departmental website and contains significantly more details. A synopsis of classes, etc. for the MS and PhD degree is listed below.

# **Biomedical and Veterinary Medical Sciences- Pathobiological Sciences, M.S.**

#### (SVMPB)

The Graduate Advisory Committee (GAC) for the degree of Master of Science consists of a minimum of three faculty members, one of whom must be a full member of the graduate faculty. The MS study plan involves coursework in the student's area of specialty and completion of an original research project resulting in an acceptable thesis. Minimal course loads are determined by the student with the approval of the GAC and to meet Graduate School requirements, but must meet the following departmental requirements:

- A. Minimum of 30 hours of credit beyond the baccalaureate or professional degree in courses numbered 4000
- B. Minimum of 6 hours must be in VMED 8000
- C. Minimum of 24 hours must be in courses other than Thesis Research (VMED 8000)
- D. Minimum of 12 hours must be in courses numbered 7000 and above, excluding VMED 8000 Thesis Research (1-12 per sem.)
- E. Limit of 6 hours of Research Techniques (7002) (any department) and 8 hours of Special Topics (7003) (any department) may be used toward any graduate degree.

- F. Students must fulfill the PBS Basic Core Requirements which includes the following courses.
  - i. VMED 7004 Introduction to Research (2)
  - ii. BIOL 4123 Immunology (3)
  - iii. BIOL 4132 Eukaryotic Molecular Genetics (3)
  - iv. PBS 7312 Concepts in Epidemiology (4)
  - v. PBS 7417 Pathogenesis of Infectious and Parasitic Agents (1-4)
  - vi. PBS 7004 Current Literature in Pathobiological Sciences (1)
  - vii. PBS 7007 Seminar (1)
- G. The MS student will submit to his/her Graduate Advisory Committee a well written, technical thesis based upon original research.
- H. A comprehensive final examination will include an open presentation and defense of the thesis followed by an oral examination by the Graduate Advisory Committee.

### **Biomedical and Veterinary Medical Sciences-Pathobiological** Sciences, Ph.D.

#### (PVMPB)

The emphasis in the doctoral program is placed on original and creative research. The aim of this program is to enable the student to become a self-educating scholar and researcher. The PhD Graduate Advisory Committee (GAC) consists of at least four graduate faculty members, two of whom must be from PBS. The GAC should be composed of those faculty members best qualified to direct and evaluate the student's study plan and research. Minimal course loads are determined by the student with the approval of the GAC and to meet Graduate School requirements, but must meet the following requirements:

- A. 54 credits (the equivalent of three years of coursework = 9 credits/semester  $\mathbf{x}$  6 semesters) in courses numbered 4000 and above. Must include 24 hours of credit earned outside of Research Courses (VMED 8900 and VMED 9000).
- B. Students must fulfill the PBS Basic Core Requirements which includes the following courses.
  - i. VMED 7004 Introduction to Research (2)
  - ii. BIOL 4123 Immunology (3)
  - iii. BIOL 4132 Eukaryotic Molecular Genetics (3)
  - iv. PBS 7312 Concepts in Epidemiology (4)
  - v. PBS 7417 Pathogenesis of Infectious and Parasitic Agents (1-4)
  - vi. PBS 7004 Current Literature in Pathobiological Sciences (1)
  - vii. VMED 8900 Pre-dissertation Research (1-9) for laboratory rotation
- C. Maximum of 6 hours of 7002 (any department) and 8 hours of 7003 (any department) may be used.
- D. Students must pass a general examination documenting that the student has acquired a broad-based scientific knowledge, a detailed understanding of their area of expertise, and can formulate a hypothesis and design an experimental approach to address the problem.
- E. A well-written dissertation based on the student's original research is part of the requirement for a Ph.D. The dissertation must demonstrate a contribution to the student's major field of study and a mastery of research techniques.

### **Petroleum Engineering (Graduate Program)**

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

To maintain safe and efficient production, the oil and gas industry relies on engineers who understand the advanced, drilling, production, and reservoir engineering practices used in modern industry. Since its inception in 1929, the Craft & Hawkins Department of Petroleum Engineering has earned a reputation for producing engineers who are innovative, yet practical. The current faculty has 15 faculty members whose areas of expertise include reservoir engineering, petrophysics, drilling and production systems, rock-fluids interaction, enhanced/improved oil recovery, cementing, geomechanics, fluid flow processes, computational modeling, and environmental aspects of the industry.

The undergraduate program produces approximately 100 BS engineers per year, and the graduate program has approximately 60 students enrolled at both the MS and PhD levels. The Department is also home to the Petroleum Engineering Research and Technology Transfer (PERTT) Laboratory, a field scale facility used for research, training, and testing related to drilling and production operations. It has numerous other computational and experimental research and educational laboratories.

#### Administration

Karsten E. Thompson, Chair		
Andrew K. Wojtanowicz; Seung I. Kam, Graduate Advisors		
Janet Dugas, Coordinator		
TELEPHONE	225-578-5215	
FAX	888-965-9518	
WEBSITE	www.lsu.edu/eng/pete	

### Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a future student applying to graduate study.

In addition to the Graduate School requirements, the department requires the following items: three (3) letters of recommendation (no form required) and a statement of purpose. A writing sample is not required but encouraged. All these items should be submitted electronically in the Graduate School application system. Items cannot be added or edited once you complete your application.

Applications for admission including financial support are received and evaluated by the department on a competitive basis that involves students' academic credentials, research skills, industry experience, as well as department's availability of funding, office/laboratory space, and faculty interest. Applications mustbe complete by the deadlines established by the Graduate School and the department. Department deadlines and more information on applying can be found in the graduate section of our website (www.lsu.edu/eng/pete).

Please note that meeting the minimum admission requirements established by the Graduate School does not guarantee acceptance.

# **Financial Assistance**

Financial assistance is available to some students through the department or other units in the form of research or teaching assistantships. An applicant may contact the department faculty for more information on available assistantship positions. To ensure consideration for financial aid, all application materials should be submitted in accordance with the application deadlines above.

## Facilities

The department's unique experimental facilities include the following:

- The Petroleum Engineering Research & Technology Transfer Laboratory (PERTT Lab) is an industrial-scale facility with six (two experimental and four supporting) wells and full-scale equipment and instrumentation for teaching laboratory courses and conducting research related to borehole technology.
- The Enhanced Oil Recovery (EOR) Laboratory has been the center of the department's experimental research activities in the areas of flow through porous media, fluids phase behavior, and gas injection EOR.
- The Lou Soileau III Rock-Fluids Interactions (RFI) Laboratory houses some unique experimental apparatus and techniques to measure dynamic contact angles and oil/water/gas interfacial tensions at reservoir pressures (up to 20,000 psi) and temperatures (up to 400°F) using live crude oils to evaluate live oil spreading behavior and gas-oil miscibility. This laboratory also houses an optical cell for making dynamic contact angles and IFT measurements at ambient conditions for conducting preliminary screening tests. It is also equipped with a computerized Wilhelmy Plate apparatus (donated by BP) for studying solid-liquid-vapor and solid-liquid-liquid interactions.
- The Chevron Reservoir Characterization Laboratory is a new state-of-the art facility for interactive visualization and modeling of reservoir problems, to be used for both research and teaching. The facility includes a high-definition video wall in addition to a variety of other wall displays. Individual workstations are available in a flexible work or seating arrangement to maximize collaboration.

# **Research Programs**

Departmental research covers a wide range of research problems associated with drilling and production of oil and gas. The total research funding awarded to the department during the last two years is approximately \$8.8 million. Primary research projects include the following:

- Well Control and Blowout Prevention—Development of technology for safe handling of high subsurface pressures of gas formations during drilling operations. The program encompasses topics such as dynamic kill and unloading procedures, underground blowouts, motion of gas slugs in inclined or underbalanced wellbores, drilling, dynamic and liquid-liquid lubrication, and the automation of well control.
- Improved/Enhanced Oil Recovery—Research efforts in this area consist of a two-pronged approach to IOR. The first approach relies on the concept of altering rock wettability by using cost-effective chemical treatments; the second approach aims to develop an effective alternative to the currently practiced water-alternating-gas IOR process by making use of the gravity drainage concept in conjunction with horizontal wells. Evaluating and improving the utilization of solvents in IOR processes is another area of study. In addition to developing new concepts, techniques, and processes of improved oil recovery, efforts are also directed at field testing and commercializing promising processes in collaboration with industry.
- Geomechanics new research program aimed at using rock mechanics and continuum mechanics concepts to study mechanical interaction of wells with formations in drilling (wellbore stability, pore pressure predictions, well integrity),

completion (hydraulic fracturing, reservoir compaction, sand production), and formation characterization (naturally fractured reservoirs).

- Environmental Control—oilfield process improvements and/or modifications leading to pollution prevention and productivity enhancement. This approach involves modeling of the oilfield process-born mechanisms of pollution and development of new, cost-effective methods and techniques to meet environmental compliance requirements. The program encompasses research of wellbore integrity, testing and removal of Sustained Casing Pressure, subsurface zonal isolation, sequestration of CO2, and *in-situ* reduction of produced water.
- Reservoir Performance Forecast—integration of fundamental and applied reservoir engineering with numerical reservoir simulation, geostatistics, reservoir geology, geophysics, optimization, and uncertainty analysis. The program focuses on EOR processes and unconventional resources.
- Geothermal processes investigating the technical and economic feasibility, and environmental and social attractiveness, of a novel method of heat extraction from low enthalpy geothermal reservoirs. The emphasis is on assessing the potential for a heat extraction method that couples forced and free convection to maximize extraction efficiency and is enhanced by considering wellbore energy conversion. The feasibility of this system depends on maintaining mechanical and hydraulic integrity of the wellbore, so the material properties of the casing-cement system are examined both experimentally and with well design calculations. The attractiveness depends on mitigation of seismic and subsidence risks, economic performance, environmental impact, and social impact all of which are assessed as components of this study.
- Reservoir Rock-Fluids and Fluid-Fluid Interactions—understanding the nature of interfacial forces and devising means to unlock the trapped resources. Since much of the current understanding is from experimental research conducted at ambient conditions, these research efforts concentrate on making fluid-fluid and rock-fluids interaction measurements at realistic reservoir conditions using live fluids.
- Well Completion Fluid Dynamics—understanding and improving fluids transfer at the well-reservoir interface. The program addresses the process of water invasion at wells and the mitigating technology of dual completions with "downhole water sink."
- Digital Rock Physics—computational methods designed to take advantage of new techniques for high-resolution 3D imaging of porous materials. Methods being developed include LBM, FEM, and network modeling. Applications include multiphase flow, high-rate flows, transport in propped fractures, particle transport, and formation damage.

### **Graduate Faculty**

(check current faculty listings by department here)

Babak Akbari (6A) • Drilling engineering, managed pressure drilling, drilling and completion fluids, pluggin and abandonment, drill bits, geomechanics

Mauricio A. Almeida (3F) • Drilling engineering, managed pressure drilling – MPD / dual gradient drilling – DGD, well control and blowout prevention, deepwater drilling and completion equipment, well design

Yuanhang Chen (6A) • Transport process modeling and simulation, downhole and surface measurement, drilling fluids, drilling automation, geomechanics, UBD/MPD

Ipsita Gupta (6A) • Multiphysics modeling of fluid flow, heat flow and solute transport in porous/geologic media, numerical modeling, reservoir engineering, hydrogeology, subsurface characterization

Richard Hughes (3F) • Oil and gas reservoir engineering, CO2 EOR and sequestration, production data analysis, pore-scale processes

Seung Ihl Kam (M) • Multiphase flow in pipes and porous media, foam and surfactant applications, modeling/simulation and flow experiments

Olufemi Ololode (6A) • Multiscale modeling of coupled physical processes, uncertainty modeling, geomechanics

Dandina N. Rao (M) • Reservoir engineering, enhanced/improved oil recovery, fluid-fluid and rock-fluids interactions Karsten E. Thompson (M) • Pore-scale and multiscale modeling of transport in porous media, computational methods Mayank Tyagi (M) • High performance computing, multiphase CFD modeling and analysis of fluid flow and heat transfer in production systems including wellbores (artificial lift techniques) and flowlines; multi-scale/multi-physics modeling of geothermal energy systems, reservoir upscaling algorithms.

Paulo Waltrich (6A) • Multiphase flows in pipes; artificial lift systems; liquid loading in gas wells; production optimization; flow

assurance

Wesley C. Williams (3F) • Facilities engineering, thermal-hydraulic analysis, multiphase flow Andrzej "Andrew" K. Wojtanowicz (M) • Mechanics and hydraulics of well drilling and completion and production, design and optimization of well construction and operation, environmental control of wells - water coning/cresting, gas migration. Mehdi Zeidouni (6A) • Flow in porous media with application to CO2 Storage/EOR and shale oil and gas, Application of inverse theory to flow-based problems.

#### Petroleum Engineering, M.S.PE

#### (MPETE)

The master's program is open to students holding BS degrees in petroleum engineering, other engineering disciplines, or sciences. For students with a BS degree in other engineering fields or in science, additional coursework is required with no graduate credit. The amount is based on the student's previous academic training - as specified on the department website (http://www.pete.lsu.edu/).

The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied. Timeline and expected performance of MS students is outlined in the document, Master's Examination Milestones (http://www.pete.lsu.edu/file/pete/file/Milestones2016MS.pdf) which can be found on the department website.

The degree is either a thesis or a non-thesis degree that requires a special project. The thesis option requires completion of 24 hours of approved coursework, six hours credit for thesis research, and submission of an acceptable thesis. The non-thesis option requires completion of 36 hours of approved graduate coursework that may include three credits for the special project. The curricular requirements include:

- For the thesis option students, at least 24 graduate credit hours of which minimum 12 hours at the 7000 level or above, excluding thesis research credit
- For non-thesis option students, 36 graduate credit hours of which 18 hours at the 7000 level or above, including maximum 3-hour credit earned for the special project;
- A minimum core requirement of 18 credit hours in drilling, production, formation evaluation, reservoir engineering, and engineering mathematics shown in the Core Curriculum Requirements document;
- A secondary concentration area consisting of a minimum of six hours of earned credit in a specified field of study may be required by the advisory committee.

The thesis option student must have their thesis approved by the committee and pass a comprehensive final oral exam. The nonthesis option student must pass a comprehensive oral exam that may (but does not have to) include approval of the special project. At the discretion of the student's advisory committee, a written exam may be required.

# **Master's Examination Milestones**

This document defines expectations of student achievements at various points in the Master of Science (MS) program in Petroleum Engineering at Louisiana State University.

#### A. Thesis Option

The student must demonstrate proficiency in research or applying advanced technology to petroleum engineering. The

student's degree plan, determined by the student and the advisory committee, consists of courses that ensure professional competence and enhance research productivity in petroleum engineering.

- 1. **Thesis Proposal** The student must present a project proposal to the advisory committee. The proposal is no later than the third semester after admission to the master program. To pass the proposal examination, the candidate will:
  - 1. Define the problem and state the engineering, science, economic, and/or social motivations for a solution
  - 2. Read, understand, and summarize the most important previous work in the area
  - 3. Place the proposed plan in a meaningful context with petroleum engineering
  - 4. Formulate a credible approach for carrying out the project and identify tools (analytical, numerical, laboratory instrumentation, and equipment) to be used
  - 5. Provide a detailed plan for the project including a timeline
  - 6. Submit a written proposal and/or formally present an oral proposal, the format(s) to be chosen by the candidate in consultation with the thesis committee.
    - If submitting a written research proposal, the proposal will be sent to the committee at least a week before the examination. The written proposal should be 3-15 pages excluding references and include items discussed in 1.1-1.5. The written proposal is a working plan for the project, agreed upon by the student and the dissertation committee.
    - 2. If making a formal oral proposal, the candidate will announce the proposal session to all department faculty and graduate students one week in advance. Upon committee members' request, copies of the slides (subject to revision) must be provided to the committee at least one week in advance. Notes from the proposal, compiled by the candidate and committee, are a working plan for the project research and/or augment the written proposal.
  - 7. Demonstrate a commitment to clear communication
- 2. **Final examination** The final examination focuses on the thesis topic, ensuring that the work is of sufficient scope, difficulty, and creativity to merit an MS degree. The final examination is (a) generally within two years after admission to the MS program, and (b) no later than three years after admission to the MS program. The candidate will:
  - 1. State the problem clearly and convincingly, identifying the elements of the problem and approach that are creative, challenging, and/or original.
  - 2. Review relevant literature completely and informatively.
  - Complete a project that contributes to petroleum engineering science and/or technology and/or applies advanced engineering or scientific methods to address a challenging problem, and/or is a new application of existing methods.
  - 4. Compare, benchmark, verify, calibrate, and/or validate results against alternative and existing solutions, techniques, and datasets.
  - 5. Demonstrate mastery of the tools used.
  - 6. Prepare a properly formatted thesis and presentation and submit the thesis to the committee at least two weeks before the examination. Copies of slides, subject to revision, should be submitted to the committee one week before the examination.
  - 7. Communicate clearly, including answering questions well.
  - 8. Announce the examination to all department faculty and graduate students one week in advance.

#### B. Non-Thesis Option

The non-thesis degree option increases the student's professional knowledge of and proficiency in applying petroleum engineering technology. The student's degree plan, determined by the student and the advisory committee, comprises courses that ensure professional competence and engineering productivity.

#### **Final Examination**

A final examination is required, and ensures that the student has developed the requisite level of knowledge and proficiency. The final examination is comprehensive and is broader in scope than a thesis-based examination. The examination is administered by the student's advisory committee. The timing of the final examination is usually during the student's last semester of coursework.

The content of this exam may be based upon one of the following options:

- a. A presentation of an independent project conducted to acquire or apply graduate level knowledge in a specific subject area, e.g. for the course PETE 7256; this is the preferred option.
- b. A presentation of a project beyond coursework using knowledge from courses, summer internship, or personal experience.
- c. An oral exam by the committee including challenging, specific technical questions in each of the four major subject areas of petroleum engineering (well drilling and completion, production, reservoir engineering, and formation evaluation).

If the general exam includes a presentation (options a and b) the candidate is expected to:

- State the problem clearly and convincingly, identifying the elements of the problem or approach that are significant
- Review relevant literature completely and informatively
- Explain the solution(s) and its (their) significance
- demonstrate mastery of the technical tools used and an understanding of petroleum engineering concepts related to the topic

Students who choose not to report on a particular project (option c) shall demonstrate:

- Understanding of engineering principles of well drilling and completion, production, reservoir engineering, and formation evaluation
- Proficiency in two of the four subject areas above
- Knowledge of petroleum engineering processes, equipment, and terminology.

### Petroleum Engineering, Ph.D.

#### (PPETE)

The PhD program is open to students holding an MS in petroleum engineering, other engineering disciplines, or in science, as well as to students enrolled in the petroleum engineering master's program at LSU. For students with no degree in petroleum engineering, additional coursework is required with no graduate credit. The amount is based on the student's previous academic training - as specified on the graduate page of the department website (www.pete.lsu.edu).

To become a doctoral candidate, a student must pass the qualifying and general examinations, meet a one-year residence requirement, and complete a minimum of 30 semester hours beyond the MS degree. The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements are satisfied. Timeline and expected performance of doctoral students is outlined in the document, PhD Examination Milestones.

The curricular requirements include:

- At least 30 graduate credit hours beyond MS degree.
- At least 15 hours at the 7000 level or above beyond MS degree;
- Minimum core requirement of 21 credit hours in drilling, production, formation evaluation, reservoir engineering, and engineering mathematics shown in the *Core Curriculum Requirements* document.
- A secondary concentration area consisting of a minimum of six hours of earned credit in a specified field of study may be required by the advisory committee.

# **PhD Examination Milestones**

This document defines expectations of student achievements at various stages in the PhD program.

**A. Research Proposal** – Within the first two years after admission to the doctoral program, the student must present a research proposal to the advisory committee. The research proposal serves as a qualifying examination in petroleum engineering. The qualifying examination is a comprehensive oral examination based on the student's proposal of the dissertation research project. To pass the examination, the candidate will:

- 1. Define the problem, including formulating a hypothesis and a test for that hypothesis
- 2. State the engineering, science, economic, and/or social motivations for a solution
- 3. Read, understand, and summarize the most important previous work in the area
- 4. Place the proposed research into a meaningful context with petroleum engineering
- 5. Formulate a credible approach for carrying out the research and identify tools (analytical, numerical, laboratory instrumentation, and equipment)
- 6. Demonstrate competence or potential to carry out the approach, including sufficient knowledge of and proficiency in other areas of petroleum engineering, geosciences, engineering sciences, basic sciences, and mathematics
- 7. Provide a sufficiently detailed plan for the research, including a timeline
- 8. Submit a written research proposal to the committee at least a week before the examination. The written proposal (not more than 15 pages excluding references) includes items discussed in 1.1-1.7. Along with a record of discussion related to the proposal, the written proposal is a working plan for the research, agreed upon by the student and the dissertation committee.
- 9. Demonstrate a commitment to clear communication
- 10. Announce the examination to all department faculty and graduate students one week in advance

**B.** General Examination – The student must pass a general examination administered by the examining committee. The Graduate School must approve the examining committee. The timing of the general examination is:

- a. Generally within three years after admission to the doctoral program
- b. No later than four years after admission to the doctoral program
- c. No later than two semesters prior to graduation.

The general examination is a rigorous, comprehensive oral examination that includes assessment of the progress made by the student in the dissertation research and overall proficiency in petroleum engineering to ensure that the student can proceed successfully to a doctoral degree. To pass the general examination, a student must demonstrate progress in all areas examined at the proposal.

Specifically, the candidate will:

1. State the problem clearly and convincingly, in a style suitable for including in the dissertation. Clearly identify the elements of the problem and approach that are creative, challenging, or original.

2. Review relevant literature completely and informatively, in a style suitable for including in the dissertation

- 3. Demonstrate expertise in the area of petroleum engineering science and technology related to the dissertation
- 4. Demonstrate proficiency in other areas of petroleum engineering

5. Perform significant, but possibly incomplete, original research that promises to contribute relevant new knowledge within petroleum engineering

6. Present a detailed plan, including timeline, for completion of the dissertation

7. Prepare a quality document for the examination including some preliminary results, with proper use of figures, tables, references, mathematical notation, grammar, spelling, etc., and submit the document to the dissertation committee at least one week before the examination. The document should generally follow format guidelines for a dissertation, and is expected to be less than 50 pages long (including appendices and excluding references).

- 8. Communicate clearly, including answering questions well
- 9. Announce the examination to all department faculty and graduate students one week in advance

**C. Final Examination** – The final examination focuses on the dissertation, to ensure that the work is of sufficient scope, difficulty, originality, and creativity to merit a PhD. In addition to the requirements of a general examination, the candidate will:

1. Complete a significant amount of original research that contributes relevant knowledge in petroleum engineering. Publications in conference proceedings and/or refereed journals are strong, independent evidence that a significant, original, and relevant contribution has been made

2. Compare, benchmark, verify, calibrate, and/or validate original results against alternative and existing solutions, techniques, and datasets

3. Demonstrate mastery of the research tools used

4. Prepare a properly formatted dissertation and presentation and submit the dissertation to the committee at least two weeks before the examination

5. Communicate clearly, including answering questions well

Announce the examination to all department faculty and graduate students one week in advance

### **Philosophy (Graduate Program)**

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

LSU is one of a few universities in the U.S. that offers the MA, but not the PhD, in philosophy. The department has built its program to fit this unique niche. No single philosophical orientation is dominant; rather, faculty and graduate courses represent various traditions. Whether students go on to a PhD program or pursue only the terminal MA, they receive a broadly based philosophical education. Philosophy graduates have had good success in subsequent graduate education, whether in philosophy, law, or religion. The philosophy master's program has particular appeal for students who:

- Desire to pursue a PhD in philosophy but whose undergraduate background in philosophy is limited.
- Majored or minored in philosophy but are uncertain about pursuing a PhD, often because of an undergraduate record that needs bolstering if the student is to enter a first-rate doctoral program.
- Desire to receive an MA in philosophy in combination with an advanced degree in some other field of study.

### Administration

Gregory Schufreider, Chair

Jon Cogburn, Director of Graduate Studies

TELEPHONE 225-578-2220

FAX 225-578-4897

WEBSITE https://lsu.edu/hss/philosophy/graduate.php

# Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Application deadlines are **May 15** for the fall semester and **October 15** for the spring semester. Decisions on recipients of financial aid for the fall semester are made as early as April 1. Completed applications for financial assistance in the form of a graduate assistantship are due by January 25. The official application must be supported by three letters of reference and, preferably, by a writing sample, all of which may be loaded with the application for admission.

# **Financial Assistance**

The department has seven full-time graduate assistantships that are awarded to applicants on a competitive basis. These awards are valued at \$12,500 per year and include an exemption of tuition. Graduate assistants are required to work 20 hours a week in grading and assisting freshman- and sophomore-level philosophy courses.

## **Graduate Faculty in Philosophy**

(check current faculty listings by department here)

Jon Cogburn (M) • Metaphysics Raff Donelson (6A) • Metaethics, legal philosophy, pragmatism, criminal law Deborah Goldgaber (6A) • Contemporary Continental philosophy; feminist philosophy; 19th and 20th century European philosophy Rachel G. Parsons (6A) • Ancient Greek Philosophy John Protevi (M) • Contemporary French philosophy Francois Raffoul (M) • Contemporary French philosophy Jeffrey W. Roland (M) • Philosophy of mathematics, epistemology, logic Husain F. Sarkar (M) • Philosophy of science, Descartes, Kierkegaard, metaphysics Gregory J. Schufreider (M) • Modern European philosophy, Anselm, philosophy of art Mary J. Sirridge (EM) • Philosophy of art, ancient and medieval philosophy, philosophy of language

# **Recent Faculty Publications**

A representative sample of recent faculty publications includes the following:

Jon Cogburn, Garcian Meditations: The Dialectics of Persistence in Form and Object (Edinburgh, 2017)

Francois Raffoul, Heidegger and the Subject. "Being and the Other: Ethics and Ontology in Heidegger and Levinas," in *Addressing Levinas*.

Jeffrey Roland, "Kitcher and the Obsessive Unifier," *Philosophy and Phenomenological Research* 77 (2008), 493-506. "Kitcher, Mathematics, and Naturalism," *Australasian Journal of Philosophy* 86 (2008), 481-497. "Maddy and Mathematics: Naturalism or Not," *The British Journal for the Philosophy of Science* 58 (2007), 423-450.

Husain A. Sarkar, *The Toils of Understanding*."Empirical Equivalence and Underdetermination." "Anti-Realism Against Methodology." "Descartes' Cogito: Saved from the Great Shipwreck."

Gregory J. Schufreider, Confessions of a Rational Mystic: Anselm's Early Writings."Heidegger's Hole"

Mary J. Sirridge, "Language and Linguistic Knowledge in Medieval Grammatical Theory." "Literature and Life Experience." "Seeing and Saying in Augustine's De Trinitate."

#### Philosophy, M.A.

#### (APHIL)

LSU offers the MA in philosophy, with thesis and non-thesis options. Requirements for the thesis option include 30 semester hours of graduate credit, with no more than six hours of thesis credit; a reading knowledge of the language required for adequate research on the thesis topic; a thesis; and an oral examination on the thesis.

Requirements for the non-thesis option include 36 semester hours, of which as many as 12 hours may be taken outside the Department of Philosophy & Religious Studies; reading knowledge of a foreign language or some department-approved alternative to foreign language competency; and an oral exam based on work that has been accomplished in the program.

The department does not offer a graduate degree in religious studies; students interested in such might wish to explore the options offered through the Master of Arts in Liberal Arts program.

# **Physics & Astronomy (Graduate Program)**

For information regarding the UNDERGRADUATE PROGRAM, click here.

# Administration

John DiTusa, Chair

TELEPHONE 225-578-2262

Dana Browne, Associate Chair

TELEPHONE 225-578-6843

Robert Hynes, Graduate Advisor

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Ilya Vekhter, Assistantship and Admissions Committee Chair

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WEBSITE www.lsu.edu/physics/

#### Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Students must submit all documents required by the Graduate School including GRE scores (a score on the GRE subject test in physics is recommended); one official transcript of all college and university coursework, with a minimum GPA of 3.0 required for all undergraduate and graduate work ("A" = 4.0); and three letters of recommendation.

The application deadline for fellowships and assistantships is **January 15** for the fall semester or summer term and **October 15** for the spring semester. For students starting in the fall term, the department reviews applications as late May 1 although the likelihood of acceptance with financial aid is much higher for applications submitted before January 15.

All graduate student applicants should check the Physics & Astronomy Department website for further information: www.phys.lsu.edu.

### **Financial Aid**

The department provides about 100 teaching and research assistantships. Combined stipend and assistantship support for PhD students entering in fall 2018 was between \$21,747 and \$23,925 in addition to full tuition waiver, depending upon the type of award and qualifications. Students are responsible for additional fees. The university also offers Huel D. Perkins Doctoral Fellowships, Board of Regents Graduate Fellowships, Economic Development Assistantships, and NASA Space Grant Fellowships with yearly stipends up to \$30,000 plus tuition waivers.

In general, all applicants are assumed to be applying for financial assistance and essentially all incoming students are awarded either an assistantship or a fellowship. Research assistantships are typically available to students after their second year and occasionally after their first year. However, entering students are encouraged to contact individual faculty members about firstyear research assistantships or summer employment prior to the beginning of the fall semester.

### **Research Facilities**

The NSF's Laser Interferometer Gravitational-wave Observatory (LIGO) is located 24 miles from campus, and our faculty and students were at the forefront of the recent discovery of gravitational waves. Astrophysical observation at LIGO continues, as does advanced detector technology development.

The Center for Computation and Technology (CCT) is an interdisciplinary research center advancing computational sciences and all the research and technologies they touch. It provides training and support for High Performance Computing (HPC), and provides access to several supercomputers. Those facilities together with the in-house clusters are extensively used for numerical

calculations of general relativity, materials science, analysis of high-energy neutrino and gamma ray astronomy data, experimental calculations and simulations of star collisions and supernovae, and simulations of biological materials.

LSU operates the Center for Advanced Microstructures and Devices (CAMD), a 1.5 GeV electron synchrotron, and the only synchrotron light source in the southeastern US. It provides light from infrared to X-rays up to 50 keV for microfabrication, basic science investigations, and research related to energy and environmental materials as well as medical studies. The Louisiana Consortium for Neutron Scattering (LaCNS) is a groundbreaking innovative partnership between four universities (LSU, Tulane, University of New Orleans, and Louisiana Tech) exploiting modern neutron scattering techniques available at Oak Ridge National Laboratory to explore the structural, magnetic, and dynamic properties of hard and soft materials systems. Other instrumentation for condensed matter research in the Department includes image furnaces and other synthesis equipment, several PPMS/MPMS systems, scanning tunneling probes and photoemission sources/detectors, and a low-temperature (5 mK) dilution refrigerator-high magnetic field (17.5 Tesla) facility used to study unconventional superconductivity and magnetism. Our graduate students in condensed matter physics have an option to obtain the materials science certificate along with their PhD.

Nuclear physics experiments are conducted at Holifield Radioactive Ion Beam Facility at Oak Ridge, ISAC facility at TRIUMF, Helical Orbit Spectrometer at Argonne National Laboratory, and the National Superconducting Cyclotron Laboratory at Michigan State. The high-energy and neutrino physics group participates in particle physics experiments at FermiLab (BooNE), played major roles in the K2K and Sudbury neutrino observatory (SNO) projects, now work on the Tokai to Kamioka (T2K) and Deep Underground Neutrino Experiment (DUNE), at J-PARC/KEK in Japan and is also involved in the deep underground experiments at DUSEL.

Members of the Astronomy, Astrophysics, and Space Science groups conduct observations using the Gemini, Cerro Tololo, Kitt Peak, Mauna Kea, and Lowell ground based observatories and the Hubble Space Telescope, Chandra, Spitzer, Swift, and Fermi satellite observatories. These groups are designing X-ray and cosmic ray experiments for long duration balloon and space missions including the CALET high-energy electron experiment on the Space Station. Ultra-high-energy cosmic rays are being measured in Argentina (AUGER). Highland Road Park Observatory (HRPO), located about 8 miles from campus, includes two fully computer-controlled reflecting optical telescopes with 20" and 16" diameter primary mirrors and CCDs for imaging. HRPO is used for teaching our undergraduate and graduate observational techniques courses and public outreach.

Medical physics facilities at Mary Bird Perkins Cancer Center include Varian Clinac electron and X-ray beams, TomoTherapy HI-ART, BrainLab Novalis, GE PET/CT, HDR brachytherapy, comprehensive dosimetry laboratories, and Elekta Synergy and multi-vendor treatment planning laboratories.

### **Graduate Faculty**

(check current faculty listings by department here)

Philip W. Adams (M) • Experimental Condensed Matter Ivan Agullo Rodenas (6A) • Quantum gravity, quantum and classical cosmology Jeffery Blackmon (M) • Experimental Nuclear Physics Tabetha Boyajian (6A) • Observational Astronomy Dana Browne (M) • Theoretical Condensed Matter Emmanouil Chatzopoulos (6A) • Theoretical and Computational Astrophysics, Supernova Theory Michael L. Cherry (M) • Gamma Rays, Galactic Cosmic Rays, High Energy Astrophysics Geoffrev Clayton (M) • DDA Modeling of Dust Grains, Interstellar Dust in the Local Group Thomas R. Corbitt (6A) • Experimental Gravitational Radiation Catherine M. Deibel (6A) • Experimental Nuclear Physics Joyoni Dey (6A) • Medical Imaging Physics Peter Diener (3F) (CCT) • Computational Astrophysics, Numerical Relativity John DiTusa (M) • Experimental Condensed Matter Jonathan Dowling (M) • Quantum Optics, Quantum Information Processing, Photonic Band Gap Materials Jerry P. Draayer (M) • Nuclear Shell Model, Statistical Spectroscopy, Group Theory Juhan Frank (M) • Accretion in Close Binaries and Active Galactic Nuclei Mette Gaarde (M) • Theoretical Ultrafast Atomic, Molecular and Optical Physics

Joseph A. Giaime (M) • Experimental Gravitational Waves (LIGO), Low Noise Detectors Gabriela González (M) • Experimental Gravitational Waves (LIGO) T. Gregory Guzik (M) • Solar and Galactic Cosmic Rays, High Energy Astrophysics William O. Hamilton (EM) • Gravitational Radiation Instrumentation Kenneth Hogstrom (EM) • Medical Physics, Radiation Therapy Physics, Radiation Dosimetry Robert Hynes (7M) • Multiwavelength Observational Astronomy Mark Jarrell (M) • Theoretical/Computational Condensed Matter Rongying Jin (M) • Experimental Condensed Matter Warren W. Johnson (M) • Gravitational Radiation Detectors, Josephson Devices Richard L. Kurtz (M) • Surface Science, Synchrotron Radiation Studies Thomas Kutter (M) • Experimental Neutrino Physics Arlo U. Landolt (EM) • Stellar Photometry Kristina D. Launey (6A) •Theoretical Nuclear Physics Hwang Lee (M) • Quantum Optics Omar Magana-Loaiza(6A) • Optical Physics, Quantum Optics and Quantum Information Science Scott T Marley (6A) • Experimental Nuclear Physics James Matthews (M) • Extremely Energetic Cosmic Rays (Auger Project) Kenneth Matthews (M) • Medical Physics, Gamma Ray Imaging Physics William J. Metcalf (EM) • Neutrino Oscillations at FNAL Juana Moreno (M) • Computational Condensed Matter Wayne D. Newhauser (M) • Medical Physics Robert F. O'Connell (EM) • Theoretical Atomic Physics Ward Plummer (M) • Experimental Condensed Matter Jorge Pullin (M) • Theoretical Gravity A. R. P. Rau (M) • Atoms in Electric and Magnetic Fields, Threshold Laws, Mathematical Physics Bradley Schaefer (EM) • Multiwavelength Astronomy Kenneth Schafer (M) • Theoretical Ultrafast Atomic, Molecular and Optical Physics Daniel Sheehy (M) • Theoretical Condensed Matter Physics Parampreet Singh (M) • Quantum Gravity, Cosmology Phillip Sprunger (M) • Surface Science, Electronic Properties of Materials Shane Stadler (M) • Experimental Condensed Matter Joel Tohline (EM) • Star Formation, Galaxy Dynamics Martin Tzanov (M) • Experimental Neutrino Physics Ilya Vekhter (7M) • Theoretical Condensed Matter Physics John P. Wefel (EM) • Galactic Cosmic Radiation, Solar Energetic Particles Mark M. Wilde (6A) • Quantum Science and Technology David Young (M) • Novel Electronic and Magnetic Materials Edward F. Zganjar (EM) • Experimental Nuclear Physics Jiandi Zhang (M) • Experimental Condensed Matter Rui Zhang (6A) (MBPCC) • Medical Physics

#### Other faculty associated with Physics and Astronomy:

Guang Jia (M) • Medical Physics, Diagnostic Imaging Physics Robert L. Carver (3F) (MBPCC) • Medical Physics

Degree Programs

This department offers studies leading to Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees.

#### Medical Physics and Health Physics, M.S.

#### (SMPHP)

The MS degree in Medical Physics and Health Physics offers two areas of concentration: medical physics or health physics. The concentration in medical physics requires 36 credit hours of course and clinical work in addition to a minimum of six hours of thesis research. The concentration in health physics requires 33 hours of coursework, plus a minimum of six hours in thesis research. Although not counted towards degree requirements, a course in human anatomy is necessary for eligibility to sit for the American Board of Radiology certification exam in radiological physics.

#### **Medical Physics Post-Doctoral Certificate**

#### (PDCMP)

The Post-Doctoral Certificate in Medical Physics provides core medical physics education for those who hold a PhD in a technical field other than medical physics. The goal of the Certificate Program is to equip the trainee with sufficient theoretical and practical background knowledge in medical physics to enter a medical physics residency program, to be eligible to sit for the American Board of Radiology certification exam in radiological physics, and to succeed in a career in medical physics. The certificate program requires 15 credit hours of courses in radiation physics, radiation protection, radiobiology, medical imaging physics, and radiation oncology physics, as well as 3 credit hours of human anatomy. The certificate program can be completed in two semesters of study.

#### Physics, M.S.

#### (SPHYS)

Students are not normally admitted just for study leading to the M.S. degree in physics. Students in the Ph.D. program can obtain the M.S. degree in the course of their study, either as an additional degree, or leave with the M.S. prior to finishing the Ph.D.

There are two paths to completing the M.S. Degree in physics. The *thesis option* requires 30 hours of coursework, of which at most 6 hours can come from thesis research (PHYS 8000 or PHYS 9000), and the successful completion and defense of a master's thesis. The *nonthesis option* requires a total of 36 hours of coursework, not including research classes (PHYS 8000 or PHYS 9000), and a comprehensive examination on that coursework.

Both options require that students pass eight required courses comprising 22 hours of credit: PHYS 7221, PHYS 7225, PHYS 7231, PHYS 7232, PHYS 7241, PHYS 7242, PHYS 7398, and PHYS 7857. They must also pass the departmental qualifying exam by the end of their second year. The qualifying exam for the M.S. or Ph.D. is offered twice each year. It is comprehensive and composed of questions at the advanced undergraduate level.

#### Master of Natural Science in Physics

A program leading to a Masters of Natural Science (MNS) program is also offered, providing breadth in science subjects as well as the depth in physics that is required for science teachers in junior and senior high school. For the MNS, 24 hours of graduate courses, and 6 hours of thesis research are required.

#### Physics, Ph.D.

#### (PPHYS)

Formal requirements for the Ph.D. degree include eight required courses (PHYS 7221, PHYS 7225, PHYS 7231, PHYS 7232, PHYS 7241, PHYS 7242, PHYS 7398, and PHYS 7857), 9 hours of advanced graduate courses beyond the required 22 core hours, a passing score on the departmental qualifying exam and the general exam, publication of research results, and a final examination.

The qualifying exam for the M.S. or Ph.D. is offered twice each year. It is comprehensive and composed of questions at the advanced undergraduate level. This exam must be completed by the end of the second year of study. The general exam consists of the successful defense of a thesis topic and an examination of the student's knowledge of the subject area of the thesis. The final examination is an oral defense of the thesis.

A dual PhD degree program in physics also exists between LSU and Nanjing University in Nanjing and the Institute of Physics in Beijing, China. Further details can be found on the department website www.phys.lsu.edu.

#### Ph.D. in Physics with a concentration in Medical Physics (PMPHP)

The PhD degree concentration in medical physics requires 24 credit hours of core coursework, 4 credit hours of clinical work, 9 credit hours of advanced medical physics electives, and 6 credit hours of non-medical physics advanced electives. Research credit hours comprise the remainder of the minimum required total of 54 credit hours for the degree. Additional requirements are a passing score on the medical physics qualifying exam and the general exam, publication of research results, and a final examination. The qualifying exam, offered once per year, is comprehensive and based on the core medical physics coursework taken in the first year of study. The general exam consists of the successful defense of a thesis topic and an examination of the student's knowledge of the subject area of the thesis. The final examination is an oral defense of the thesis. Although not counted towards degree requirements, a course in human anatomy is necessary for eligibility to sit for the American Board of Radiology certification exam in radiological physics.

### Plant, Environmental & Soil Sciences (Graduate Program)

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

The School of Plant, Environmental & Soil Sciences offers graduate programs leading to the Master of Science (MS) and the Doctor of Philosophy (PhD) degrees. There are three optional areas of concentration within the degree programs: Agronomy, Horticulture, and Soil Science. Students interested in a particular concentration should contact a graduate advisor for specific requirements.

Students with an agronomic focus concentrate their graduate studies in weed science, crop breeding and genetics/biotechnology, or applied plant physiology. Students studying horticulture may specialize in any branch of horticulture, including breeding and genetics, propagation, vegetable production, physiology, mineral nutrition, weed control, plant growth and development, postharvest physiology, and food processing. Students pursuing soil science study a wide variety of subdisciplines including soil classification, soil physics, soil chemistry, soil fertility, soil microbiology, environmental soil science, and land use/management.

Agronomy, which includes the soil and water environments associated with crop production, is the primary source of food for our world's population. Agroeconomic activities are very important at the state, national, and global levels. Many opportunities await agronomists with MS and PhD degrees. Positions are available in the private sector as well as in government and universities. The graduate faculty of the school is engaged in both applied and basic research. Most agronomy and environmental management faculty members have joint appointments between LSU and the LSU Agricultural Center. These scientists conduct research and impart education and training to sustain productivity of food, feed, and fiber while maintaining environmental quality with efficient use of natural resources.

Horticulture at LSU has a great tradition. Some of the most important U.S. varieties of sweet potatoes, strawberries, and peaches have been developed at LSU during the past 50 years. Plant breeding remains a significant focus, but there is a new emphasis in

woody ornamentals and floriculture. Traditional cultural practices of the past are now modified by a trend toward sustainable agricultural methods with less impact on the environment. In the last decade, physiological research in fruit, vegetable, floriculture, and ornamental production systems has increased. Turfgrass science and management have also become important areas of horticulture research. The horticulture faculty is unique in its strong emphasis on postharvest physiology.

Soils represent one of our greatest natural resources; a source for growing food, fiber, and building materials. Students in soil science are provided hands-on experience with advanced technologies such as inductively coupled plasma atomic emission spectroscopy, x-ray fluorescence spectrometry, GreenSeeker proximal nitrogen sensor, global positioning system, carbon/nitrogen combustion analyzer, and gas chromatograph. Studies in pollution management and spatial/temporal variation in soil properties are modeled with advanced software such as ArcGIS. Students completing degrees in soil science have many career options available to them including: government sector (USDA-NRCS, Bureau of Land Management, Forest Service, Louisiana Department of Environmental Quality), private sector (consulting, industrial services, wetland delineation, soil survey), and academia.

Environmental management uses scientific information to manage natural resources in ways that will ensure environmental sustainability. Both teaching and research in the School of Plant, Environmental & Soil Sciences are directly related to sustainability and provide graduate students with a background in such environmental management areas as wetlands conservation, water pollution prevention, waste management, pest-management practices, and environmental remediation.

Students who receive advanced degrees in Plant, Environmental & Soil Sciences go on to rich and rewarding careers and leave with the challenge of contributing to the world in which they live. Graduates of our school report that their education has well prepared them for their future careers.

## Administration

Don LaBonte, Director

Maud Walsh, Graduate AdvisorSheila Rohwer, Graduate Administrative AssistantTELEPHONE225/578-2110 or (225) 578-2158FAX225/578-1403 or (225) 578-0396

WEBSITE http://www.lsuagcenter.com/portals/our\_offices/departments/spess

# Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Applicants for admission to the MS and PhD programs are required to submit a completed application plus transcripts of all previous college work and scores on the verbal and quantitative portions of the GRE. Applications should be submitted at least three months prior to the beginning of a new term. In addition, international applicants must submit scores on the Test of English as a Foreign Language (TOEFL), International English Language Testing System (IELTS), or Peterson's Test of English (PTE). Prospective students are advised to contact faculty members who are conducting research in areas of interest. For more information about admission requirements see the LSU Graduate School Prospective Student Information page.

### **Financial Assistance**

In the School of Plant, Environmental & Soil Sciences, both teaching and research assistantships are available to some students. Stipends are competitive with other programs around the country. Depending upon the source of funding, tuition exemptions may apply. To ensure consideration for financial aid, all application materials should be submitted in accordance with deadlines established by the LSU Graduate School. Students holding teaching assistantships may assist in the teaching of a course or teach one to two laboratory sections. Graduate assistants are required to work up to 20 hours per week. Students are assigned to supervisors who may or may not be their major professor.

### **Graduate Faculty**

(check current faculty listings by department here)

Niranjan Baisakh (M) • Molecular biology, biotechnology Jeffrey S. Beasley (M) • Turfgrass management Patrick K. Bollich (M) • Central Station, agronomy Edward W. Bush (7M) • Ornamental horticulture Yan Chen (M) • Ornamental horticulture Ronald D. Delaune (3F) • Wetland Biogeochemistry Institute; Chemistry of flooded soils Adam N. Famoso (6A) • Rice Research Station, rice breeding and genetics Daniel D. Fromme (3F) • Dean Lee Research Station, agronomy (corn and cotton) Lisa Michelle Fultz (6A) • Soil microbiology Lewis A. Gaston (M) • Soil chemistry Kenneth A. Gravois (M) • Sugar Research Station; sugarcane breeding James L. Griffin (EM) • Weed science (soybean, sugar cane and corn) Kun Jun Han (M) • Forage Dustin L. Harrell (M) • Rice Research Station, Soil chemistry/fertility Stephen A. Harrison (M) • Small grain breeding and genetics Charles E. Johnson (EM) • Pomology and tree physiology/dormancy Collins A. Kimbeng (3F) • Sugar Research Station, Sugarcane breeding and genetics Jeff S. Kuehny (M) • Floriculture and ornamentals Don R. LaBonte (M) • Plant breeding/genetics Lauren M. Lazaro (6A) • Weed science Brian D. Leblanc (M) • Watershed management and water quality Donnie K. Miller (M) • Northeast Research Station; Weed science (cotton and soybean) Carl E. Motsenbocker (M) • Vegetable crops Gerald O. Myers (M) • Cotton breeding, genetics James H. Oard (M) • Rice genetics, biotechnology Albert Joseph Orgeron (6A) • Weed science David H. Picha (M) • Post harvest physiology H. Magdi Selim (M) • Soil physics, environmental research Luciano S. Shiratsuchi (6A) • Precision agriculture Prasanta K. Subudhi (M) • Plant genetics and genomics Brenda Tubana (M) • Soil fertility Edward K. Twidwell (M) • Pasture, Forage Crops & Small Grains Herry S. Utomo (3F) • Rice Research Station, Wetlands Arthur Quejada Villordon (M) • Plant physiology Maud Walsh (M) • Environmental management, environmental education Jim J. Wang (M) • Soil chemistry, environmental problems Eric P. Webster (M) • Weed science (rice) Ida Wenefrida (3F) • Rice Research Station, Wetlands

### School of Plant, Environmental & Soil Sciences, M.S.

#### (SPESS)

The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major professor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

The thesis option requires a minimum of 30 hours of credit at the graduate level, of which no more than six may be thesis credit hours. Other curricular requirements include:

- At least 15 hours of credit in courses at or above the 7000-level, which may include up to three hours of thesis credit.
- At least one hour credit in the seminar class, AGRO 7001.
- A minimum of 6 hours of thesis credit.

The student must pass a comprehensive oral examination (thesis defense). Students are strongly encouraged to publish manuscript(s) from their MS research in appropriate peer-reviewed, scholarly journals.

The non-thesis option degree requires a minimum of 36 hours credit at the graduate level. This degree option, which must be approved by the student's major professor and advisory committee, is suitable for students with full-time employment who desire emphasis on course work rather than research. The curricular requirements include:

- At least 18 hours of credit in courses at or above the 7000-level.
- At least one hour credit in the seminar class, AGRO 7001.
- Completion of a short project and a written report.

The student must pass a comprehensive oral examination.

#### School of Plant, Environmental & Soil Sciences, Ph.D.

#### (PPESS)

The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The advisory committee will include the student's major professor and at least two additional members of the graduate faculty (see additional guidelines for committee members in the Requirements for Ph.D. section of The Graduate School). Additionally, the Dean of the Graduate School appoints a member of the graduate faculty to serve on doctoral general and final exam committees.

A dissertation is a requirement for the proposed degree. The curricular requirements include:

- At least 45 hours of course work (not including dissertation research). Additional course work may be required at the discretion of the student's committee. Credit for courses taken in an M.S. program is subject to approval by the student's committee.
- A minimum of 15 hours of dissertation credit.
- At least two hours credit from seminar class AGRO 7001. One seminar class may be substituted with a seminar presented in the minor department if a minor is being undertaken.

Students are strongly encouraged to publish manuscript(s) from their doctoral research in appropriate peer-reviewed, scholarly journals.

# Plant Pathology & Crop Physiology (Graduate Program)

# **Program Overview**

Plant pathology is the study of plant diseases from the molecular level of host-pathogen interactions to the development and testing of field level disease management protocols. The need for professionals in this area has never been greater because of the burgeoning world population and the worldwide movement of destructive plant pathogens. In addition, there is a constant demand for new agricultural technology related to food security because of the emphasis on environmental stewardship and the ever-increasing need to produce more food and fiber on a finite land area.

Crop physiology is the study of molecular, biochemical and physiological processes that are required for plant growth and development beginning with seeds and progressing to the physiology of yield formation. In addition, this field includes the mechanisms by which plants adapt to environmental stresses such as salinity, drought and high temperatures. Both fields are involved with discovery of new knowledge and its application to the solution of food and fiber production.

The Department of Plant Pathology & Crop Physiology at LSU is recognized nationally and internationally for applied and basic research on diseases caused by bacteria, fungi, nematodes, and viruses of economically important agronomic and horticultural crops as well as coastal plants. Conditions in Louisiana allow cultivation of and research on semitropical crop species such as corn, cotton, rice, soybeans, sugarcane, and sweet potatoes. Graduate students have the opportunity to work with Louisiana Agricultural Experiment Station personnel who conduct investigations in areas of plant pathology and crop physiology. The department's MS and PhD graduates are prepared for appointments at universities, in government and private research labs, or in international agricultural development. Other employment opportunities exist in the agricultural chemical industry, with government regulatory agencies, or with private research foundations. Prospective students should consult the website and correspond with faculty members whose programs most closely match their professional interests.

# Administration

Lawrence E. Datnoff, Head Zhiyuan Chen, Chair, Graduate Admissions Committee

TELEPHONE	225-578-1464
FAX	225-578-1415
E-MAIL	plantpath@lsu.edu
WEBSITE	www.lsu.edu/ppcp

# Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying for graduate admission.

Applications for admission to the LSU Graduate School must be received by **May 15** for the summer and fall semesters and **October 15** for the spring semester. Transcripts of academic work completed at LSU are not necessary. Results from the GRE exam (verbal and quantitative) should be sent directly to the LSU Graduate School by Educational Testing Services. These test scores are required before any application can be considered. A minimum score of 550 on the paper-based exam, 213 on the computer-based exam, and/or 79 on the Internet-based test, a score of at least 6.5 on the IELTS, or a score of at least 59 on the PTE is required of all international students. Also required for admission are three letters of recommendation by individuals who know the applicant's academic and professional qualifications. Course prerequisites for entrance into the MS or PhD program vary by area of specialization. Further information on graduate studies in the department may be obtained by emailing plantpath@lsu.edu.

# **Financial Assistance**

Financial assistance may be available through the department or other units in the form of research or teaching assistantships. A student should contact the faculty member of interest or the department head for more information on available assistantships. To ensure consideration for financial aid, all application materials should be submitted in accordance with deadlines established by the LSU Graduate School.

# **Graduate Faculty**

(check current faculty listings by department here)

Robert Brown (3F) • Mycotoxicology Zhiyuan Chen (M) • Molecular biology, plant physiology, host-fungal pathogen interactions Christopher A. Clark (M) • Plant pathology, sweet potato pathology Thomas E. Cleveland (3F) • Plant pathology Marc A. Cohn (EM) • Seed systems biology Patrick D. Colyer (3F) • Plant pathology Kenneth E. Damann (EM) • Mycotoxicology, biological control, host-pathogen interactions Lawrence E. Datnoff (M) • Plant pathology, silicon nutrition and plant disease resistance, administration Vinson Doyle (6A) • Mycology, systematics, population genetics, phylogenomics Michael P. Grisham (3F) • Sugarcane pathology Donald E. Groth (M) • Plant pathology, host resistance in rice and wheat Jong H. Ham (M) • Phytobacteriology Clayton Hollier (EM) • Plant pathology, disease management, crop loss assessment Jeffrey W. Hoy (M) • Plant pathology, sugarcane pathology, epidemiology Steven D. Linscombe (3F) • Disease resistance in rice Edward C. McGawley (M) • Nematology, plant pathology Oliveira-Garcia (6A) • Biotic stress, plant pathology Charles Overstreet ((M) Nematology, plant pathology Charles Overstreet (M) • Nematology, plant pathology Guy Boyd Padgett (3F) • Plant pathology, disease management in row crops, epidemiology Paul P. Price, III (3F6A) • Field crops pathology and disease management, epidemiology Jonathan K. Richards (6A) • Plant Pathology, Fungal biology Raymond W. Schneider (EM) • Plant pathology, fungal genetics, soybean pathology Raghuwinder Singh (3FM) • Plant healthdisease diagnostics Salliana (Sally) Stetina (3P) • Nematode disease management in cotton Sara Thomas-Sharma (6A) • Field crops pathology Rodrigo A. Valverde (M) • Plant virology

## Plant Pathology and Crop Physiology, M.S.

Plant Pathology and Crop Physiology (SPPCP)

Plant Pathology and Crop Physiology (SPPCP) or (PPPCP)

LSU offers the MS and PhD in Plant Pathology and Crop Physiology with opportunities for specialization in plant pathology or crop physiology. The MS program in plant pathology requires 30 credit hours of coursework and research credit, while the crop physiology option requires 31 credit hours. A non-thesis option in plant pathology requires 36 credit hours of coursework. The PhD program in plant pathology requires a minimum of 56-57 credit hours of coursework and research credits, while the program in crop physiology requires 55 credit hours. The PhD program in each area of specialization also requires a qualifying examination, general examination, and final defense of the dissertation.

## Plant Pathology and Crop Physiology, Ph.D.

Plant Pathology and Crop Physiology (PPPCP)

## Plant Pathology and Crop Physiology (SPPCP) or (PPPCP)

LSU offers the MS and PhD in Plant Pathology and Crop Physiology with opportunities for specialization in plant pathology or crop physiology. The MS program in plant pathology requires 30 credit hours of coursework and research credit, while the crop physiology option requires 31 credit hours. A non-thesis option in plant pathology requires 36 credit hours of coursework. The PhD program in plant pathology requires a minimum of 56-57 credit hours of coursework and research credits, while the program in crop physiology requires 55 credit hours. The PhD program in each area of specialization also requires a qualifying examination, general examination, and final defense of the dissertation.

# **Political Science (Graduate Program)**

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

Established in 1908, LSU's Department of Political Science has a distinguished tradition. The faculty have included internationally recognized scholars, a president of the American Political Science Association, three presidents of the Southern Political Science Association, several Fulbright Scholars, editors of such academic journals as *Journal of Politics* and *American Politics Quarterly*, a program director of the National Science Foundation, and two members of the National Council on the Humanities. Many of these scholars are still on our faculty, and they and others serve on the editorial boards of leading political science journals. The faculty in the department have exhibited a high level of scholarly productivity. Recent professional surveys have placed the LSU Department of Political Science among the top 30 most productive departments nationwide in terms of faculty publication in the discipline's leading journals over the recent decades.

The Department's graduate program is comprehensive; hence, specialization is possible in many aspects of political science, including American politics, comparative politics, international relations, political theory, and political methodology. Specific programs of study, including minor fields, can be developed to meet the needs and interests of the individual student. Because graduate study involves both individual research and coursework, emphasis is placed on close consultation between faculty and students. The department's graduate students have published their research in leading scholarly journals and presented their research at major political science conferences, both in collaboration with faculty and individually.

# Administration

Wayne Parent, Chair

#### David Sobek, Director of Graduate Studies

TELEPHONE	225-578-2141
FAX	225-578-2540
WEBSITE	http://www.lsu.edu/hss/polisci/

## **Political Science as a Minor**

#### MA Requirements

A minor in political science consists of six hours of coursework with an average of 3.0 or better. Coursework should be limited to one field of political science.

#### PhD Requirements

A minor in political science consists of twelve hours of coursework, with an average grade of 3.0 or better. Coursework will normally be limited to a single field of political science. Permission may be granted to offer courses in more than one field if, in the opinion of the minor professor, it would serve the student's particular needs.

## Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Applications for admission are received and evaluated by the department throughout the year, with a **February 15** deadline for applicants seeking funding to begin study the following fall. Applicants must adhere to the application deadlines established by the Graduate School. Students seeking admission must submit satisfactory credentials from previous study, acceptable GRE scores, and three letters of recommendation from faculty who are familiar with their academic work. International students whose native language is not English must also submit an acceptable TOEFL, IELTS, or PTE score. Students who have a less extensive background in Political Science (e.g., fewer than 18 undergraduate credit hours in Political Science) may be offered provisional admission and asked to complete several undergraduate courses, perhaps concurrently with introductory graduate courses, before full admission.

## **Financial Assistance**

The department offers a number of graduate assistantships and fellowships. Department assistantships presently provide \$15,057 per year and a waiver of tuition; students are responsible for paying required university fees. No separate application is necessary to be considered for a departmental assistantship. To ensure consideration for financial aid, all application materials should be submitted by February 15 and in accordance with deadlines established by the LSU Graduate School.

## **Graduate Faculty**

(check current faculty listings by department here)

Nichole Bauer (6A) • American politics, gender and politics Kathleen Bratton (M) • American politics, gender politics, state politics, legislative politics Joseph Clare (M) • International politics, American foreign policy Josh Darr (6A) • American politics, political communication, campaign politics Belinda Davis (M) • American politics, public policy, state politics Cecil Eubanks (M) • Contemporary political thought, existentialism, politics and literature, political theology James Garand (M) • American national political institutions, electoral politics, public opinion, public policy, domestic political economy, research methods and statistics Stacia L. Haynie (M) • American judicial politics, public law, comparative judicial behavior Robert Hogan (M) • American politics, campaigns and elections, state politics, legislative politics Martin Johnson (M) • American politics, political communication, political methodology Christopher Kenny (M) • American politics, campaigns and elections, mass political behavior, process of social influence, methodology Yann P Kerevel (6A) • Comparative politics, Latin American politics Wonik Kim (7M) • Comparative politics, comparative political economy, comparative social welfare policy Kevin V. Mulcahy (M) • American national politics, presidential politics, public policy, specialization in cultural policy making Kathleen Searles Nickerson (6A) • American politics, political communication Alexander Orwin (6A) • Political theory, Islamic thought T. Wayne Parent (M) • American politics, Southern politics, electoral politics, political attitudes Leonard Paul Ray (M) • Comparative politics, electoral politics, party politics David Sobek (7M) • International relations, international conflict, terrorism, civil war James R. Stoner, Jr (M) • Political theory, English common law, American constitutionalism Christopher M Sullivan (6A) • International relations, international human rights Jas M. Sullivan (M) • American politics, race and ethnicity Daniel C. Tirone (6A) • International relations, international political economy

## **Political Science, M.A.**

#### (APOLI)

The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

The degree requires a master's thesis, unless a student earning a master's on the way to a PhD is approved for a thesis by-pass. 34-37 hours of credit at the graduate level must be earned for the MA, including a maximum of nine hours of credit for the thesis. The curricular requirements include:

- A principal field consisting of a minimum of nine hours of earned credit in a specified field of study.
- A secondary field consisting of a minimum of six hours of earned credit in a different field of study.
- Two required seminars (POLI 7961 and POLI 7962).
- A one-credit professional development seminar (POLI 7000).
- Six hours of electives or a Minor Field in another department.
- A master's thesis, with an oral defense.

## **Political Science, Ph.D.**

#### (PPOLI)

The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

The degree requires a doctoral dissertation. At least 64 hours of credit at the graduate level must be earned including a minimum of nine hours of credit for the dissertation. The curricular requirements include:

- A principal field consisting of a minimum of 15 hours of earned credit in a specified field of study.
- A secondary field consisting of a minimum of 12 hours of earned credit in a different field of study.
- A third field, or a Minor field in another department (0-12 hours).
- Three required seminars (POLI 7961, POLI 7962, and POLI 7963) [students whose principal field is political theory may substitute a research skills course, for example an additional language, for POLI 7963].
- Proficiency in one foreign language [students whose principal field is American politics or international relations may substitute an advanced research skills course, for example POLI 7964, for a foreign language].
- A one-credit professional development seminar (POLI 7000).
- Approved electives (6-15 hours).
- A general examination, written and oral, in the principal and secondary field, after the completion of all the previous requirements.
- A dissertation, with an oral defense (PhD final examination).

# **Psychology (Graduate Program)**

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

The department offers training in the following specialty areas: Clinical Psychology, Cognitive and Brain Sciences, Industrial/Organizational Psychology, Biological, and School Psychology. The program is a doctoral program—it is not appropriate for students seeking to complete their education with a master's degree. We do not offer degrees in Counseling Psychology or Social Work. Appropriate departments for these programs at LSU are the School of Education and the School of Social Work respectively. If you need help determining the appropriate field of study to pursue, the American Psychological Association (APA) provides useful information.

The Department of Psychology at LSU is committed to the view that psychology is both a science and a profession. Both faculty and students in psychology endorse the model of the psychologist as a scientist-practitioner. The program's major emphasis is on research training and experience, and the teaching of psychology. All graduate students, regardless of intended area of specialization, receive broad training to develop research capability for scholarly contributions to the discipline of psychology throughout their careers. If you are interested only in the professional application of psychology, without regard for research, you will not be comfortable in the graduate training program in this department. Graduate students in this department are expected to develop a lifelong commitment to science and to the highest social-ethical ideals of the profession of psychology.

The graduate program in psychology follows the mentor model. For this reason, it is recommended that prospective students review our faculty web pages along with this document (http://lsu.edu/hss/psychology/faculty/index.php). Each faculty member has additional information regarding his/her interests and publications listed there. This is an effective way to determine if your goals and interests match those of our faculty and our program, as well as to find examples of the research conducted here at LSU.

# Administration

George Noell, Chair

Emily M. Elliott, Associate Chair

#### Alex Cohen, Graduate Studies Director

TELEPHONE	225-578-8745
FAX	225-578-4125
WEBSITE	http://lsu.edu/hss/psychology/grad/index.php

## Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Applications for admission are received in early December and evaluated by the department within the following two months. Applicants must adhere to the application deadlines established by the Graduate School and the Department of Psychology.

Students seeking admission must submit satisfactory credentials from previous study, acceptable verbal and quantitative GRE scores, and three letters of recommendation. Minimum undergraduate course experience should include an introductory psychology course, a basic statistics course (preferably from a behavioral/social science program), and a research methodology course (preferably from a behavioral/social science program). International students whose native language is not English must also submit an acceptable TOEFL, IELTS, or PTE score.

In-depth information about the department, its faculty, and specialty areas for prospective students is available at http://lsu.edu/hss/psychology/grad/prospective-student/NatureoftheProgram.php.

## **Financial Assistance**

Financial assistance is available to some students. The department makes every effort to obtain financial support for graduate students to the extent that funds are available. Sources of funds include departmental teaching and research assistantships. The department also arranges support from outside agencies, such as mental health centers and community or industry research programs. To ensure consideration for financial aid, all application materials should be submitted in accordance with the psychology department's December 1 deadline, and in accordance with those established by the LSU Graduate School.

## **Facilities**

- Audubon and Johnston Halls contains numerous rooms and lab facilities.
- The department's Psychological Services Center (PSC), an on-campus facility located in Johnston Hall, is operated by the department to offer graduate training and research in adult clinical, medical clinical, child clinical, and school psychology. The PSC provides diagnostic and therapeutic services for adults and children in the Baton Rouge community, including students enrolled at LSU and children of LSU students.
- Other sources of clinical populations are local clinics and schools, the Emerge Center, and the Center for Autism and Related Disorders. Clinical doctoral students work with children with a variety of disorders (e.g., autism, intellectual disabilities, and visually impairments), as well as preschoolers described as non-categorical (children who have some disability, but are too young for well-delineated symptoms) for both practicum and research purposes.
- Additional research is conducted at the Pennington Biomedical Research Center, Our Lady of the Lake hospital, LSU-Health Sciences hospital, inpatient and outpatient therapy clinics, East Baton Rouge public school system, and various other facilities and institutions both in and outside of Louisiana.

# **Graduate Faculty**

(check current faculty listings by department here)

Claire D. Advokat (EM) • Biological—Psychopharmacology, drugs used to treat mental illness and neurological disorders, ethics of clinical research, drugs of abuse

Alan A. Baumeister (M) • Biological—History of biological psychiatry, neuropharmacology

Melissa R. Beck (M) • Cognitive and Brain Sciences—Visual memory and attention; the roles of encoding, retrieval, decision making and metacognition in the perception of a continuous and stable visual world

Phillip J. Brantley (M) • Adjunct Faculty—behavioral medicine, emphasis on the effects of stress and learning on illness Julia Buckner (M) • Clinical—The nature and treatment of substance use disorders in adults, with an emphasis on the transactional relations between these disorders and comorbid anxiety

Matthew R. Calamia (6A) • Clinical—Clinical neuropsychology; In particular, in improving the measurement of cognitive and emotional functioning in individuals with neurological disorders such as Alzheimer's disease, epilepsy, and traumatic brain injury Owen T. Carmichael (3F) • Adjunct Faculty—Development of biomedical imaging techniques; application to brain aging and metabolic disorders.

Katie E. Cherry (M) • Cognitive and Brain Sciences—Cognitive aging, especially memory processes in healthy older adults; memory interventions for cognitively impaired older adults; interdisciplinary studies of healthy aging in the old

Christopher Cox (6A) • Cognitive and Brain Sciences—Concepts, categories, and their neurocognitive representation. Machine learning, computational modeling, and neuroimaging analyses to study how concepts support cognition.

Alex S. Cohen (M) • Clinical—Severe adult psychopathology, leveraging objective computerized technologies to understand symptoms, social dysfunction, emotion, cognition and illness-related risk.

Amy Copeland (M) • Clinical—Role of motivational variables (e.g., outcome expectancies and affect) in the etiology and cessation of stimulant use; smoking cessation; HIV risk and substance abuse

Thompson Davis III (7M) • Clinical—Assessment and treatment of anxiety disorders in children, adolescents, and young adults, in particular, the phenomenology, etiology, assessment, and treatment of specific phobias (i.e., intense, persistent fears of specific animals, situations, environments, and the like)

Jeanne M. Donaldson (6A) • School—Behavior analytic approach to treatments for problematic behavior in young children at both group and individual levels.

Emily M. Elliott (M) • Cognitive and Brain Sciences—Memory and the development of memory in children; attention, and in particular, the interaction of attention and immediate memory

Paul Frick (M) • Clinical-Causal factors of serious emotional and behavioral problems in children and adolescents; develop effective interventions to prevent and treat such problems

Paula Geisleman (EM) • Biological—Biological factors underlying nutritional intake.

Shawn Gilroy (6A) • School— School—Autism and developmental disabilities, Clinical applications of technology, Open source software development, Applied behavioral economics

William Drew Gouvier (EM) • Clinical—Clinical neuropsychology; base rates, post-concussion syndrome, malingering detection, and social implications of disabilities

Steven Greening (6A) • Cognitive and Brain Sciences -neurocognitive mechanisms involved in adapting to and controlling the influence of emotional events on the brain and behavior across the lifespan; promote mental wellbeing in both healthy individuals and those with mental illness

Frank M. Gresham (M) • School—Use of problem solving methods to remediate academic and social behavioral difficulties of children and adolescents; use of a response to intervention approach in the assessment of learning disabilities and emotional and behavioral disorders; social skills assessment and training for children and adolescents

Mike Hawkins (EM) • Biological—Historical developments in animal neuroscience and stress response.

Jason L. Harman (6A) • Industrial/Organizational- judgment and decision making; organizational behavior; cognitive models; behavioral economics; dynamic systems

Jason Hicks (M) • Cognitive and Brain Sciences—Human learning and memory; source memory; prospective memory; recognition memory; control and decision processes in memory retrieval

Glenn N. Jones (3P) • Adjunct Faculty—Behavioral medicine; psychology in medical settings; clinical interviewing and rapid screening for psychopathology; cognitive behavioral assessment and treatment of adult disorders; psychopathology and substance abuse among HIV+ patients.

Mary Lou Kelley (M) • Clinical-Behavioral assessment and treatment of children and adolescents; attention deficit

hyperactivity disorder; behavioral pediatrics

Anna C. Long (6A) • School—Treatment integrity of evidence-based practices in schools; teacher effectiveness Heather Lucas (6A) • Cognitive and Brain Sciences—cognitive neuroscience of memory; psychosocial influences on learning and memory; cognitive and brain aging; interactions among memory, cognitive control, and creativity Johnny Matson (M) • Clinical—Mental retardation and related developmental disabilities; social skills training; childhood depression; differential diagnosis; behavioral assessment and treatment Robert Mathews (EM) • Cognitive and Brain Sciences—Cognitive science of learning. Janet McDonald (M) • Cognitive and Brain Sciences—Language acquisition; age of acquisition and grammatical mastery; bilingualism; language comprehension George Noell (M) • School—Behavioral consultation, treatment integrity Megan Papesh (6A) • Cognitive and Brain Sciences—Episodic memory; the role of eye movements in learning and retrieval; face perception and recognition; pupillometry and human cognitive neuroscience Paul Soto (6A) • Cognitive and Brain Sciences— Laboratory animal models of psychiatric disease symptoms, behavioral and cognitive effects of drugs, identification of potential therapeutic medications. Jas M. Sullivan (M) • Jointly Appointed Faculty— — Political psychology, racial identity, stereotyping and discrimination Raymond P. Tucker (6A) • Clinical— Clinical—Theoretical models of why adults die by suicide, novel suicide risk assessment

strategies, current and historical suicide risk Rachel W. Smith (6A) • Industrial/Organizational— occupational health, diversity, employee well-being, personality Don C. Zhang (6A) • Industrial/Organizational—Evidence-based employment assessment; data-driven talent analytics preemployment job interviews; data visualization and communication

# **Degree Programs**

LSU's doctoral program in psychology only admits students interested in working toward a doctoral degree. The MA may be earned along the way, as explained below, but is not a terminal master's degree program. Students desiring only a master's degree should not apply. Training is offered in the following specialty areas: Clinical, Cognitive and Brain Sciences, Industrial/Organizational, Biological, and School Psychology.

# Psychology, M.A.

#### (APSYC)

The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

The degree is a thesis degree, requiring a thesis project. At least 36 hours of credit at the graduate level must be earned, including six hours of credit for the thesis project (PSYC 8000). The curricular requirements include:

- At least 15 hours at the 7000 level or above.
- A primary area consisting of a minimum of six hours of earned credit in a specified field of study, which may include seminar or practicum credit.
- A minimum core requirement: two courses from among PSYC 4111, PSYC 7020, PSYC 7111, and PSYC 7117; and six credits of PSYC 8000.

The student must pass a final exam consisting of a written thesis document and a comprehensive oral exam (i.e., the thesis defense).

## Psychology, Ph.D.

(PPSYC)

The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee, and varies depending on the area of specialization. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

The degree is a thesis degree requiring a dissertation project. Forty-eight hours of credit at the graduate level must be earned including a maximum of 12 hours of credit for the dissertation project. The curricular requirements include:

- At least 24 hours at the 7000 level or above, exclusive of any type of independent studies credit except for special project credit earned.
- A primary area consisting of a minimum of 15 hours of earned credit in a specified field of study.

The student must pass a general exam consisting of a written exam and a comprehensive oral exam, at the discretion of the student's advisory committee. The nature of the written and oral portions of the general exam is listed below in the area-specific curricula section for each area.

# **Core Statistics and Methodology Courses**

Satisfactory completion of these courses is required to be qualified for advanced doctoral study. Satisfactory completion constitutes passing the required courses with a grade of at least a "B-" ("B minus") by the end of your 2nd year in the program. Each course is generally offered once a year. If you feel you have a particularly strong background in one or more of the core areas, you may take the final exam in any course; you will have satisfied the core requirement if you earn a grade of "B-" ("B minus"). You must secure a letter from the course instructor giving your exam grade for inclusion in your file, as evidence of satisfying this requirement. Be aware that this will not show up on your transcript.

Core Statistics and Methodology Courses:

Intermediate Statistics (PSYC 4111)

OR

Advanced Statistics (PSYC 7111)

If PSYC 4111 is waived based on prior graduate work in statistics, then PSYC 7111 must be taken; both courses cannot be waived.

#### AND

Methodology and Research Design (PSYC 7117)

OR

Measurement of Behavior (PSYC 7020)

Note: Measurement and Behavior (PSYC 7020 may be required in certain program areas (see program-specific handbooks for more details), but it is not required within the first two years if you successfully complete PSYC 7117.

# **Required Content Courses**

Satisfactory completion of the content courses is required. Satisfactory completion constitutes passing the required courses with a grade of at least a "B-" ("B minus") by the end of your 4th year in the program, or prior to degree completion, whichever comes first. Each course is generally offered once a year. If you feel you have a particularly strong background in one or more of the required content areas, you may take the final exam in any course; you will have satisfied the core requirement if you earn a grade of at least a "B-" ("B minus").

#### Required Content Courses:

Biological Basis of Behavior (PSYC 7034), NeuroCognitive Basis of Behavior (PSYC 7030), SocioCultural Basis of Behavior (PSYC 7040), History of Modern Psychology (PSYC 4008)

If you do not complete the courses with satisfactory grades within four years, you will be dismissed from the program. Any new student failing <u>more</u> than one core course on the first attempt will be dismissed from the program.

## Area-specific curricula

Below are further requirements for the different program areas: Biological, Clinical, Cognitive and Brain Sciences, Industrial/Organizational, and School. These area requirements include those listed above, but address others that are area specific. Additional details about each area-specific curriculum may be found at http://www.lsu.edu/hss/psychology/grad/index.php.

## **Biological Psychology**

Biological Core Courses (must take five of the courses below in Groups A through F; at least three must be from Groups A and B)

## Group A

- PSYC 4031 Sensory and Perceptual Processes (3)
- PSYC 4035 Drugs, the Brain and Behavior (3)
- PSYC 4037 Neuropharmacology (3)
- PSYC 4039 Madness and Medicine (3)
- PSYC 7938 Seminar in Experimental Psychology (3) or
- PSYC 7939 Seminar in Experimental Psychology (3)

## Group B

- BIOL 4158 Endocrinology (3)
- BIOL 4160 Vertebrate Physiology (3)
- BIOL 4177 Neurobiology (3)
- BIOL 4800 Selected Topics in Biological Sciences (2-4)
- BIOL 7290 Complex Carbohydrates (3)
- CBS 7614 Central Nervous System (3)

## Group C

- KIN 4605 Habituating and Addictive Drugs in Our Culture (3)
- KIN 4512 Lifespan Motor Development (3)
- KIN 4520 Psychosocial Aspects of Physical Activity (3)

## Group D

- KIN 7503 Dimensions of Aging (3)
- KIN 7508 Analysis of Human Movement (3)
- KIN 7510 Motor Learning (3)
- KIN 7512 Motor Control (3)
- KIN 7530 Exercise Physiology (3)
- KIN 7535 Neuromuscular Aspects of Exercise (3)
- KIN 7601 Changing Health Behavior (3)

## Group E

- COMD 4250 Anatomy and Physiology of Speech and Hearing (3)
- COMD 7385 Neuropathologies of Speech (3)

## Group F

- NFS 4111 Nutrition and Disease I (4)
- NFS 4114 Nutrition and Disease II (4)
- NFS 7004 Molecular and Clinical Nutrition I (2)
- NFS 7005 Molecular and Clinical Nutrition II (2)

## Other required coursework

- PSYC 8000 Thesis Research (1-12 per sem.) (6 credits maximum) \*
- PSYC 9000 Dissertation Research (1-12 per sem.) (12 credits maximum) \*
- PSYC 4999 Independent Reading and Research in Psychology (1-6) (6 credits maximum) \*
- PSYC 8939 Independent Research: Experimental Psychology (1-6) (15 credits maximum) \*

### Note:

\*Additional hours may be taken, but the number listed is the maximum allowed to apply toward degree.

In the Biological Psychology area, the general examination consists of a written and oral examination. The written portion consists of an essay exam based on questions supplied by the student's advisory committee. The oral exam focuses primarily on the written portion of the exam and is undertaken only after passing the written component.

## **Clinical Psychology**

## **Clinical Core Courses**

• PSYC 4111 Intermediate Statistics (3) +

- PSYC 7111 Advanced Statistics (3) +
- PSYC 7117 Methodology and Research Design (3)
- PSYC 7125 Psychological Assessment I (3)
- PSYC 7171 Developmental Disorders and Psychopathology of Children (3)
- PSYC 7625 Psychological Assessment I Practicum (3)
- PSYC 7925 Psychological Assessment II (3)
- PSYC 7929 Cultural Diversity Issues in Counseling and Therapy (3)
- PSYC 7960 Supervision and Consultation in Psychology (3)
- PSYC 7982 Advanced Psychopathology (3)
- PSYC 7999 Professional Considerations in Psychology (3)

#### Must take one of the following

- PSYC 7972 Child Behavior Therapy (3) or
- PSYC 7185 Behavior Therapy (3)

#### Must take one of the following

- PSYC 7949 Lifespan Development: Behavioral Perspectives (3) or
- PSYC 7979 Current Problems in Developmental Psychology (3)

#### Other required coursework

- PSYC 7688 Practicum in Clinical Psychology (1-3) (12 semester hours required) \*
- PSYC 7689 Practicum in Clinical Psychology (1-3) (12 semester hours required) \*
- PSYC 8000 Thesis Research (1-12 per sem.) (6 credits maximum) \*
- PSYC 9000 Dissertation Research (1-12 per sem.) (12 credits maximum) \*
- PSYC 7997 Clinical Psychology Internship (3) (15 credits required)

### **Optional courses**

- PSYC 7990 Teaching of Psychology (3)
- PSYC 7690 Teaching of Psychology Practicum (1-3) (4 credits maximum) \*

#### Note:

\*Additional hours may be taken, but the number listed is the maximum allowed to apply toward degree.

+All clinical students must take and pass PSYC 4111 and PSYC 7111. The student must take PSYC 4111 unless granted permission by the instructor of PSYC 4111 to take PSYC 7111. This decision will be based on a determination that a course equivalent to PSYC 4111 has been taken previously.

The general exam will consist of two components: a written literature review and an oral defense.

#### Written Examination

The written portion of the general examination is an integrative literature review that makes an important theoretical contribution to psychological research and/or provides clear directions for future empirical studies that will make an important contribution to

research. The written document must be approved by the student's major professor before it is disseminated to the general examination committee. The final version of the written review paper should be submitted to the examining committee at least two weeks prior to the oral examination.

#### **Oral Examination**

The oral examination will involve the general examination committee (including the Dean's Representative) who will have a vote. The student must demonstrate independent mastery of the research included in the written document during the oral examination.

## **Cognitive and Brain Sciences**

## Cognitive and Brain Sciences Required Courses

- PSYC 7117 Methodology and Research Design (3) †
- PSYC 4111 Intermediate Statistics (3) †

## Seminar and Research Hours (must take 21 hours of the following)

- PSYC 7938 Seminar in Experimental Psychology (3)
- PSYC 7939 Seminar in Experimental Psychology (3)
- PSYC 7990 Teaching of Psychology (3) +
- PSYC 7690 Teaching of Psychology Practicum (1-3) (4 credits maximum) + \*
- PSYC 8939 Independent Research: Experimental Psychology (1-6) (15 credits maximum) \*

### Other required courses

- PSYC 4111 Intermediate Statistics (3) †
- PSYC 7117 Methodology and Research Design (3) †
- PSYC 8000 Thesis Research (1-12 per sem.) (6 credits maximum) \*
- PSYC 9000 Dissertation Research (1-12 per sem.) (12 credits maximum) \*

### Optional courses

- PSYC 4999 Independent Reading and Research in Psychology (1-6) (6 credits maximum) \*
- PSYC 7020 Measurement of Behavior (3)
- PSYC 7111 Advanced Statistics (3)

#### Note:

\*Additional hours may be taken, but the number listed is the maximum allowed to apply toward degree.

+PSYC 7990 and PSYC 7690 may be taken to substitute for one required seminar.

†PSYC 4111 and PSYC 7117 double as statistical/methodology core courses and cognitive and brain sciences core courses.

Students have <u>two</u> options for completion of the general exam: <u>a literature review paper</u> or a <u>written/typed</u> exam. **Both options involve an approximately 2-hour oral defense after the student has turned in the paper or exam.** The goal of the assignment (both options) is to ensure that students have the ability to: 1) integrate and synthesize ideas and concepts from multiple sources, 2) argue persuasively and clearly communicate their understanding of important issues orally and in writing, and 3) think critically. The choice of the option is to be made in consultation with the graduate advisor.

- A. A Literature Review Paper This paper is of the type that would be typically submitted to journals such as *Psychological Bulletin*. The paper will be on a topic in the student's area of research specialization. However, this paper should not simply be the introduction for a student's dissertation. Rather, it should typically be broader in scope. However, the topic can be related to the dissertation topic or on a completely different topic. The breadth of literature covered will be decided in consultation with the student's advisor and committee. Students should keep in mind that a literature review does not involve simply rehashing prior research, but encompasses a *research synthesis* (e.g., Cooper, 2003, Psychological Bulletin) that leads to new insights.
- B. A Written/Typed Examination Together with each Psychology committee member, the student will create a reading list. When the student is ready to begin the exam, s/he will receive two questions from each psychology committee member, with the content based on the general theme of the agreed-upon reading list. The exam will be "open book," spanning two weeks from receipt of the questions to the time when the student turns in typed, written answers. Students should answer 4 out of the 6 questions, with the understanding that s/he must answer at least one question per committee member and at least one question covering research methodology. There is no length requirement for each answer, and students are not restricted to use only the sources outlined in the reading list. The student should satisfactorily address each component of the selected questions in separate APA style research papers, complete with references cited in the document.

## Industrial/Organizational Psychology

Satisfactory completion of the qualifying core courses is required to be qualified for advanced doctoral study. Satisfactory completion constitutes passing the required courses with a grade of "B minus" or higher by the end of your 4th year in the program. It is recommended that as many of these classes as possible be taken during the first two years of graduate school. Each course is generally offered once a year. If you feel you have a particularly strong background in one or more of the core areas, you may take the final exam in any course; you will have satisfied the core requirement if you earn a grade of "B minus" or higher. You must secure a letter from the course instructor giving your exam grade for inclusion in your file as evidence of satisfying this requirement.

The Graduate School requires that any student receiving a Ph.D. demonstrate proficiency in their area of study. The General Examination is the arena for this demonstration. If a minor degree is to be awarded, the student must show proficiency in this area as well. For this reason, the minor requirements must be met at the time of the General Exam and the minor professor must be present at the General Exam.

The I/O General Exam will consist of a research proposal, a written/typed exam, and an oral defense.

## **Qualifying Core Courses**

#### Any new student failing more than one core course on the first take will be dismissed from the program.

You have two attempts to complete these qualifying core courses. Failure to do so within your first <u>four years</u> will result in dismissal from the program. If you wait until year four to take the course, you will only get one opportunity to pass the course.

- PSYC 7030 Neurocognitive Basis of Behavior (3)
- PSYC 7034 Biological Basis of Behavior (3)
- PSYC 7040 Sociocultural Basis of Behavior (3)
- PSYC 4008 History of Modern Psychology (3) and two of four courses:
- PSYC 4111 Intermediate Statistics (3)
- PSYC 7020 Measurement of Behavior (3)
- PSYC 7111 Advanced Statistics (3)

• PSYC 7117 Methodology and Research Design (3)

## Industrial/Organizational Core Courses

- PSYC 7951 Competencies and Perspectives in Industrial and Organizational Psychology (3)
- PSYC 7958 Current Problems in Industrial Psychology (3)
- PSYC 7959 Current Problems in Industrial Psychology (3)
- PSYC 8959 Independent Research: Industrial Psychology (1-6)

## School Psychology

## School Core Courses (must be completed before internship)

- PSYC 7117 Methodology and Research Design (3) †
- PSYC 4111 Intermediate Statistics (3) †
- PSYC 7111 Advanced Statistics (3) †
- PSYC 7125 Psychological Assessment I (3)
- PSYC 7165 Psychoeducational Assessment (3)
- PSYC 7929 Cultural Diversity Issues in Counseling and Therapy (3)
- PSYC 7660 School Psychological Consultation (3)
- PSYC 7973 School-Based Psychological Interventions (3)
- PSYC 7171 Developmental Disorders and Psychopathology of Children (3)
- PSYC 7968 Current Problems in School Psychology (3)
- PSYC 7972 Child Behavior Therapy (3)
- PSYC 7946 Theories and Concepts of Behavior Analysis (3)
- PSYC 7948 Research Methodology and Application in Behavior Analysis (3)
- PSYC 7949 Lifespan Development: Behavioral Perspectives (3)
- PSYC 7688 Practicum in Clinical Psychology (1-3) (3 credits required)
- PSYC 7668 Practicum in School Psychology (1-6) (6 credits maximum) \*
- PSYC 7669 Practicum in School Psychology (1-6) (6 credits maximum) \*
- PSYC 8000 Thesis Research (1-12 per sem.) (6 credits maximum) \*
- PSYC 7060 Ethical, Legal and Professional Issues in School Psychology (3) or
- PSYC 7999 Professional Considerations in Psychology (3)

## Other required courses

- PSYC 7969 Internship in School Psychology (1-6) (12 credits maximum) \*
- PSYC 9000 Dissertation Research (1-12 per sem.) (12 credits maximum) \*

### Note:

\*Additional hours may be taken, but the number listed is the maximum allowed to apply toward degree.

†PSYC 4111, PSYC 7020, PSYC 7111, and PSYC 7117 double as qualifying core courses and school psychology core courses.

The general examination for School Psychology students comprises a series of written examinations and an oral defense. The written exams are designed to assess students' competency in six areas of school psychology. These areas include: (1) Law and Ethics, (2) School-Based Interventions, (3) School Psychological Consultation, (4) Applied Behavior Analysis, (5) Assessment, and (6) Research Methodology. The written exams are conducted over a period of two days. An oral exam is also administered following completion of the written exams. In the oral defense students are questioned regarding their answers on the written exam or on questions related to the fields of School Psychology.

# Public Administration Institute (Graduate Program)

# **Program Overview**

The MPA program is a 45-hour professional program in public administration. The program consists of 33 hours of core courses and twelve hours of electives in an area of specialization.

# Administration

Jared J. Llorens, Director and Graduate Coordinator

TELEPHONE	225-578-6743
FAX	225-578-9078
WEBSITE	lsu.edu/business/pai

# **Dual Degree Program in JD/MPA**

Click to view the Dual Degree Program in JD/MPA

# Admission

While applications for admission are accepted and evaluated by the Institute on an ongoing basis throughout the year, new students are only admitted in the fall semester.

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Students seeking admission must submit satisfactory credentials from prior undergraduate coursework, acceptable GRE scores, information on any work experience, listing of outside activities and volunteer efforts, and three letters of recommendation. The PAI examines all aspects of an applicant's credentials in making decisions to admit an applicant to the MPA program. International students whose native language is not English must also submit an acceptable TOEFL, IELTS, or PTE score.

The Public Administration Institute will waive the GRE requirement for MPA applicants who meet one or more of the following criteria:

• Provide a GMAT or LSAT score that was taken in the previous five years.

- Successfully completed a minimum of six hours of non-matriculating LSU MPA coursework with a minimum GPA of 3.0 or higher and no less than a B in any individual course.
- Have a minimum of three years of full-time, management level public service experience or five years full-time nonmanagement experience in either the public, non-profit, or private sectors.

GRE waiver requests will be reviewed and approved by the PAI Director. Following the submission of the LSU Graduate School application, eligible applicants must provide a formal request to PAI at pai@lsu.edu indicating the criteria under which they are requesting a GRE waiver and any relevant documentation to support their request (transcript, test score, resume).

## **Financial Assistance**

Financial assistance is available to some students. Support may be available through the student's home department or other units in the form of research or teaching assistantships. A student should contact his or her home department for more information on available assistantship positions. To ensure consideration for financial aid, all application materials should be submitted in accordance with deadlines established by the LSU Graduate School.

# **Graduate Faculty**

(check current faculty listings by department here)

Suzette Caleo (6A) • Organization Analysis, Research Methods, Human Resource Management
Meghann Dragseth (6A) • Public Policy and Non-Profit Management
Roy Heidelberg (6A) • Public Policy, Public Administration Theory, and Decision Making
Jared Llorens (M) • Human Resource Management, Public Policy, Quantitative Methods, and Research Methods
James A. Richardson (M) • Public Policy, Economic Analysis, Public Finance, and Taxation
Min Su (6A) • Public Budgeting and Financial Management
Richard White (M) • Human Resource Management, Public Ethics, and Public Administration Theory

## **Dual Degree: JD/MPA**

Students interested are encouraged to visit the individual program site.

#### • JD/DCL-MPA

LSU and the Paul M. Hebert Law Center offer several dual degree programs, allowing a student to earn both the JD/DCL and a master's degree.

Students enrolling in the dual degree programs must be admitted separately to the LSU Graduate School and the Law Center. Students should consult with the admissions office of each institution prior to enrollment.

Each program has specific requirements, which can be found by visiting the website listed above.

Students successfully completing the program listed above will receive two degrees, a JD/DCL awarded by LSU's Hebert Law Center and a master's degree awarded by LSU.

## Public Administration, M.P.A.

The student will take 33 hours of core courses and twelve hours of electives in an area of specialization. The core courses are PADM 5009, PADM 5010, PADM 5600, PADM 7850 or PADM 7851, PADM 7900, PADM 7902, PADM 7910, PADM 7911, PADM 7912, PADM 7914, and PADM 7917. These courses have been selected by the faculty of the Public Administration Institute to be included as core courses in the LSU MPA program. **Elective coursework** will be selected by the student in

consultation with the director of the MPA program. The MPA is a non-thesis program. It does require an internship (for students who are pre-service) or a practicum (for students who are in-service). Students are responsible for getting their own internships though the Institute will provide information about **and facilitate the selection of** internship placements.

All MPA students are required to maintain an MPA portfolio that includes a **representative sample of coursework demonstrating core competencies in public administration and policy.** The MPA portfolio must be presented to the faculty at the exit examination.

In addition, each student will be given a comprehensive examination in accordance with the Public Administration Colloquium (a capstone course that each MPA student will take during the student's last year in the MPA program). This comprehensive examination will be evaluated by the professor of the Public Administration Colloquium and two other faculty members. The comprehensive examination will be related to up to three case studies that will be presented to the students at the beginning of the semester in which the Public Administration Colloquium is taken.

Finally, surveys of graduates, **employers and alumni** will be conducted on an annual basis in order to assess the ongoing effectiveness of the department.

# **Renewable Natural Resources (Graduate Program)**

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

LSU has a long tradition in natural resource education and research, beginning with its first forestry class in 1911 and continuing to the present School of Renewable Natural Resources (RNR). The importance of renewable resources to Louisiana is evident in the \$4 billion annual economic impact to the state from natural resource commodities (e.g., timber harvesting, wood products, recreational hunting, hunting leases, recreational and commercial fishing). However, the benefits of sustaining viable natural resources go far beyond their economic value and include a diversity of ecosystem services, including storm amelioration, water quality improvement, wildlife habitat, hydrologic processing, and maintenance of terrestrial and aquatic biodiversity. Today, programs in RNR are focused on both basic and applied research and teaching in the fields of aquaculture, fisheries, forestry, forest products, watershed function, wetlands, and wildlife. Faculty members in RNR have established close working relationships with private landowners, private industry, commodity groups, nonprofit conservation groups, and federal and state agencies, both in the U.S. and abroad. Combined with the research expertise of RNR faculty, the abundance and diversity of renewable natural resources in Louisiana provide a rich environment for graduate study.

# Administration

D. Allen Rutherford, Director

William E. Kelso, Coordinator of Graduate Studies and Research

TELEPHONE 225-578-4131

FAX 225-578-4227

WEBSITE www.rnr.lsu.edu

# Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials supplied by third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Louisiana State University, Baton Rouge, LA 70803. All documents will be scanned and stored electronically, and RNR faculty will have access to all material submitted by and/or on behalf of a student applying for graduate study. International students whose native language is not English must also submit an acceptable TOEFL (minimum 213 on computer-based, 550 on paper-based, or 79 on Internet-based exams), IELTS (minimum 6.5) score, or PTE (minimum 59) score. The following documents should accompany all applications submitted to the Graduate School: transcript(s) of undergraduate study, transcript(s) of all graduate work, GRE scores (verbal and quantitative), three letters of recommendation, and a statement of purpose. The statement of purpose should include:

- 1. Educational and work experience in the chosen area of concentration.
- 2. Educational goals and career plans.
- 3. Reasons for pursuing graduate studies in the school.
- 4. A brief outline of research interests and potential thesis topics.
- 5. Any other information that would assist faculty members with their admission recommendation.

If Graduate School admissions criteria are met, all documents will be forwarded to the graduate advisor in the school and evaluated by the appropriate faculty group for an admission recommendation.

# **Financial Assistance**

Graduate research assistantships are awarded to incoming graduate students on a competitive basis and typically range from \$20,000 to \$25,000 per year. Outstanding applicants in forestry-related areas of research are eligible to compete for Gilbert Foundation Assistantships, which range from \$27,000 to \$31,000 per year and include a full tuition exemption. Rockefeller Scholarships, with awards of \$1,000 per year, are available to Louisiana students and to out-of-state students after one year of residence in the state. Wildlife students conducting waterfowl research are eligible to compete for the Bosch Memorial Assistantship. All graduate students can apply for small travel grants from the Graduate School to attend scientific meetings, and wildlife and fisheries students are also eligible for Glasgow Travel Grants administered by RNR. To be considered for fellowships and state-funded assistantships, applications must be received by August 15 for the following spring semester and February 1 for the following fall semester. Students seeking research assistantships may apply at any time of the year, but are encouraged to send all application materials to the LSU Graduate School at least 3 months before the start of the semester of planned enrollment. As most assistantships in the school are funded by grants and contracts obtained by faculty members, prospective students are strongly encouraged to contact individual faculty members regarding funding availability before applying.

## **Graduate Faculty**

(check current faculty listings by department here)

## **Fisheries and Aquaculture**

Julie A. Anderson Lively (6A) • Marine fisheries research and extension
James W. Avault (EM) • Aquaculture
C. Fred Bryan (EM) • Atchafalaya and Mississippi River ecology, estuarine nursery function
Christopher C. Green (M) • Physiology and nutrition of aquatic organisms
Reagan M. Errera (3F) • Oceanography, phytoplankton ecology
Michael D. Kaller (M) • Stream fisheries, macroinvertebrate ecology, statistical analyses
William E. Kelso (M) • Fisheries management, fish-habitat interactions, fish ecology
Megan LaPeyre (3F) • Wetland fisheries, plant ecology, wetland ecology, coastal marsh management
Charles G. Lutz (M) • Aquaculture and fisheries extension
Robert C. Reigh (M) • Fish and crustacean nutrition, feed development, feeding methods

Robert P. Romaire (EM) • Water quality management, crustacean aquaculture, crawfish production D. Allen Rutherford (M) • Lotic fish assemblages, ecology of larval and juvenile fish John E. Supan (3F) • Molluscan shellfish culture, management, depuration, and sanitation Terrance Tiersch (M) • Molecular genetics, hybridization, polyploidy, cryopreservation Wei Xu (6A) • Molecular genetics and physiology

## Forestry

Michael A. Blazier (3F) • Forest management, timber production, fertilization
Quang V. Cao (M) • Mensuration, forest biometrics
Jim L. Chambers (EM) • Forest ecology and tree physiology
S. Joseph Chang (M) • Forest economics, wood products utilization and marketing
Terry Clason (EM) • Intensive pine silviculture
Cornelis de Hoop (M) • Environmental safety and business in forest products
Thomas J. Dean (M) • Quantitative silviculture, production ecology, stand dynamics
Hallie Dozier (M) • Population demography of invasive plant species, ecology of plant invasions
Richard F. Keim (7M) • Ecology, management, and restoration of bottomland hardwood ecosystems
Zhijun Liu (M) • Tree physiology, cultivation of medicinal plants, micropropagation
Richard P. Vlosky (M) • Wood products marketing, technology applications to improve wood products
Qinglin Wu (M) • Hydrologic and biogeochemical processes and modeling

## Wildlife

Bret A. Collier (6A) • Ecology and management of upland wildlife
Robert B. Hamilton (EM) • Avian ecology
Sammy L. King (3F) • Wetland ecology, wildlife and habitat management
Ashley M. Long (6A) • Wildlife extension, wildlife ecology and management
John Andrew Nyman (M) • Wetland wildlife management and ecology, coastal marsh management
Kevin Michael Ringelman (6A) • Waterfowl Ecology and Management
Philip C. Stouffer (M) • Conservation biology, avian ecology, neotropical migratory birds
Sabrina S. Taylor (M) • Conservation genetics, management of rare species

## **Renewable Natural Resources, M.S.**

### (SRNR)

The school offers the MS degree in Renewable Natural Resources with areas of concentration in Fisheries and Aquaculture, Forest Products, Forestry and Forest Resources, Watershed Science, and Wildlife. Students in each of the areas of concentration work with their advisory committee to develop an approved departmental-level academic course plan that will become part of their academic file. The committee must include the student's major advisor and at least two additional members of the graduate faculty to satisfy requirements of the Graduate School.

The MS degree programs in the school require each student to complete 24 hours of coursework (12 hours of which must be at the 7000 level or above), six hours of thesis research credits, and successful defense of a thesis research project. No more than six total hours of RNR 7029 Advanced Topics in Renewable Natural Resources (1-4) or RNR 8900 Research Problems in Natural Resources (1-3) may be included in the departmental-level academic course plan, with no more than four hours taken in any one semester. Regulations regarding the inclusion of credits earned from courses at other institutions in the departmental level academic course plan can be found elsewhere in "The Graduate School" section.

Each student accepted into the school will have an initial qualifying exam during the first semester administered by at least three school faculty members. This exam will identify areas of knowledge that can be improved through coursework, and these courses will be included on the student's departmental-level academic course plan. Each MS student will be required to take the following nine hours of courses as part of their required 24-hour departmental-level academic course plan:

- RNR 7001 Research Methodology (3)
- RNR 7070 Graduate Seminar in Fisheries (1)
- RNR 7071 Graduate Seminar in Forestry (1) or
- RNR 7072 Graduate Seminar in Wildlife (1) (two semesters required)
- EXST 7003 Statistical Inference I (4) or
- EXST 7004 Experimental Statistics I (4) or
- EXST 7005 Statistical Techniques I (4)

The School of Renewable Natural Resources also offers graduate minors in Renewable Natural Resources and Interdepartmental Studies in Wetland Ecology and Restoration. Please visit www.rnr.lsu.edu for details on the requirements for these 12-credit hour minors.

In addition to these nine hours listed above, MS students in the school will be required to take courses specified in each area of concentration (AOC) as part of their 24-hour departmental-level academic course plan. Specific course requirements for the MS AOCs in the SRNR include:

# Master of Science in Renewable Natural Resources (SRNR), Fisheries and Aquaculture AOC (FAQM)

The Fisheries and Aquaculture AOC requires a minimum of nine hours of coursework in addition to the general nine-hour requirement for all MS students in the school. The following courses, or demonstration to the student's graduate committee of proficiency in one or more of these courses from previous coursework and experience, are required, and may be included in the nine hours required for this AOC:

- RNR 4022 Principles of Aquaculture (4)
- RNR 4025 Limnology (3)
- RNR 4037 Biology of Fishes (3)
- RNR 4040 Fisheries Management (3)
- RNR 4145 Ichthyology (4)

## Note:

Depending on prior coursework and experience, additional courses may be required to satisfy the 24-hour course requirement for the MS degree. Additional courses determined by the advisory committee will be included in the approved departmental-level academic course plan. Examples of potential courses that could contribute to the educational goals of the student and satisfy course requirements in the Fisheries and Aquaculture AOC are available on the SRNR website (www.rnr.lsu.edu).

# Master of Science in Renewable Natural Resources (SRNR), Forest Products AOC (FPDM)

The Forest Products AOC requires a minimum of nine hours of coursework in addition to the general nine-hour requirement for all MS students in the school. The following courses, or demonstration to the student's graduate committee of proficiency in one or more of these courses from previous coursework and experience, are required, and may be included in the nine hours required for this AOC:

- RNR 7029 Advanced Topics in Renewable Natural Resources (1-4)
- RNR 4038 Forest Resource Economics (3)
- ENVS 7041 Environmental Policy Analysis (3)
- ENVS 7047 Environmental Economics and Policy (3)
- GEOG 4078 Environment and Development (3)
- ME 4723 Advanced Materials Analysis (3)
- ME 7953 Advanced Topics in Mechanical Engineering (3)
- TAM 7047 Modern Fiber Science and Technology (3)

# Master of Science in Renewable Natural Resources (SRNR), Forestry and Forest Resources AOC (FRSM)

The Forestry and Forest Resources AOC will require a minimum of nine hours of coursework in addition to the general nine-hour requirement for all MS students in the school. Additional courses determined by the advisory committee will be included in the approved departmental-level academic course plan. Examples of potential courses that could contribute to the educational goals of the student and satisfy course requirements in the Forestry and Forest Resources AOC are available on the SRNR website (www.rnr.lsu.edu).

# Master of Science in Renewable Natural Resources (SRNR), Watershed Science AOC (WSCM)

The Watershed Science AOC will require a minimum of nine hours of coursework in addition to the general nine-hour requirement for all MS students in the school, including RNR 4900 Watershed Hydrology (3), or demonstration to the student's graduate committee of proficiency in watershed hydrology from previous coursework and experience. The remaining hours will be determined by each student's committee and will be dependent on the needs of the student and the committee approved thesis project. Examples of potential courses that could contribute to the educational goals of the student and satisfy course requirements in the Watershed Science AOC are available on the SRNR website (www.rnr.lsu.edu).

# Master of Science in Renewable Natural Resources (SRNR), Wildlife AOC (WLDM)

The Wildlife AOC will require a minimum of nine hours of coursework in addition to the general nine-hour requirement for all MS students in the school. The following courses, or demonstration to the student's graduate committee of proficiency in one or more of these courses from previous coursework and experience, are required, and may be included in the nine hours required for this AOC:

- RNR 7013 Wildlife Population Dynamics (3)
- RNR 7016 Current Topics and Techniques in Conservation Science (3)

### Note:

Depending on prior coursework and experience, additional courses will be required to satisfy the 24-hour course requirement for the MS degree. Additional courses required for each student's departmental-level academic course plan will be determined by the graduate committee. Examples of potential courses that could contribute to the educational goals of the student and satisfy course requirements in the Wildlife AOC are available on the SRNR website (www.rnr.lsu.edu).

## **Renewable Natural Resources, Ph.D.**

#### (PRNR)

The school offers the PhD degree in Renewable Natural Resources with areas of concentrations in Fisheries and Aquaculture, Forest Products, Forestry and Forest Resources, Watershed Science, and Wildlife. This degree program requires a minimum of 34 hours of coursework beyond the BS degree, 20 hours of dissertation research (RNR 9000), a qualifying exam taken during the first semester, a general exam (written, oral, or both) taken upon completion of coursework specified in the program, and defense of a completed dissertation. A departmental-level academic course plan must be approved by the student's committee during the first year in residence. The committee must include four members of the graduate faculty, plus a representative appointed by the dean of the Graduate School. Regulations on committee membership and the inclusion of credits earned from courses at other institutions in the departmental-level academic course plan can be found in "The Graduate School" section.

The School of Renewable Natural Resources also offers graduate minors in Renewable Natural Resources. Please visit www.rnr.lsu.edu for details on the requirements for these 12-credit hour minors.

As part of the 54-hour post-baccalaureate departmental-level academic course plan (34 hours of coursework, 20 hours of dissertation research), each student will be required to take the following 13 hours of courses:

- RNR 7001 Research Methodology (3) (may be waived by the graduate committee)
- RNR 7070 Graduate Seminar in Fisheries (1) or
- RNR 7071 Graduate Seminar in Forestry (1) or
- RNR 7072 Graduate Seminar in Wildlife (1) (two semesters required)
- EXST 7003 Statistical Inference I (4) or
- EXST 7004 Experimental Statistics I (4) or
- EXST 7005 Statistical Techniques I (4)
- EXST 7013 Statistical Inference II (4) or
- EXST 7014 Experimental Statistics II (4) or
- EXST 7015 Statistical Techniques II (4)

No more than six total hours of RNR 7029 Advanced Topics in Renewable Natural Resources (1-4) or RNR 8900 Research Problems in Natural Resources (1-3) may be included in the departmental-level academic course plan, with no more than four hours taken in any one semester. Specific curricular requirements for the five AOCs include:

# Doctor of Philosophy in Renewable Natural Resources (PRNR), Fisheries and Aquaculture AOC (FAQP)

The Fisheries and Aquaculture AOC will require a minimum of 15 hours of coursework in addition to the general course requirements for all PhD students in the school. The following courses, or demonstration to the student's graduate committee of proficiency in one or more of these courses from previous coursework and experience, are required, and may be included in the 15 hours required for this AOC:

- RNR 4022 Principles of Aquaculture (4)
- RNR 4037 Biology of Fishes (3)
- RNR 4025 Limnology (3)
- RNR 4040 Fisheries Management (3)
- RNR 4145 Ichthyology (4)
- RNR 7020 Ecology of Fishes (3)
- RNR 7036 Advanced Topics in Natural Resources Biometrics and Management (3)

## Note:

Depending on prior coursework and experience, additional courses determined in consultation with the advisory committee will be required to satisfy the 34-hour course requirement for the PhD degree. Examples of potential courses that could contribute to the educational goals of the student and satisfy course requirements in the Fisheries and Aquaculture AOC are available on the SRNR website (www.rnr.lsu.edu).

# Doctor of Philosophy in Renewable Natural Resources (PRNR), Forest Products AOC (FDPP)

The Forest Products AOC will require a minimum of 15 hours of coursework in addition to the general course requirements for all PhD students in the school. Depending on the research area, the following courses, or demonstration to the student's graduate committee of proficiency in one or more of these courses from previous coursework and experience, may be included in the 15 hours required for this AOC.

# Coursework for a doctoral student conducting research in marketing and business development:

- RNR 4038 Forest Resource Economics (3)
- RNR 7029 Advanced Topics in Renewable Natural Resources (1-4)
- MKT 4440 Digital Marketing (3)
- MKT 4443 International Marketing (3)
- MKT 7477 Seminar in Advanced Marketing Problems (3)
- ECON 7630 Econometric Methods (3)

## Coursework for a doctoral student conducting research in wood chemistry:

- CHEM 4563 Organic Structure Elucidation (3)
- BIOL 4001 Physical Chemistry (3)
- CHEM 4010 Macromolecular Systems I (3)
- CHEM 4011 Macromolecular Systems II (3)
- CHEM 4552 Instrumental Methods of Measurement and Analysis (2)

## Note:

Depending on prior coursework and experience, additional courses determined in collaboration with the graduate committee will be required to satisfy the 34-hour course requirement for the PhD degree. Examples of potential courses that could contribute to the educational goals of the student and satisfy course requirements in the Forest Products AOC are available on the SRNR website.

# Doctor of Philosophy in Renewable Natural Resources (PRNR), Forestry and Forest Resources AOC (FRSP)

The Forestry and Forest Resources AOC will require a minimum of 15 hours of coursework in addition to the general course requirements for all PhD students in the school. The required courses will be tailored to the student's area of research by the graduate committee. It is anticipated that these 15 hours will come from the following courses in the school:

- RNR 4033 Silviculture and Management of Hardwoods (4)
- RNR 4038 Forest Resource Economics (3)
- RNR 4032 Forest Fire Protection and Use (2)
- RNR 4036 Forest Management (4)
- RNR 4107 Human Dimensions in Natural Resources (3)
- RNR 4900 Watershed Hydrology (3)
- RNR 7036 Advanced Topics in Natural Resources Biometrics and Management (3)
- RNR 7061 Watershed Biogeochemistry (3)

## Note:

Examples of potential courses that could also contribute to the educational goals of the student and satisfy course requirements in the Forestry and Forest Resources AOC are available on the SRNR website (www.rnr.lsu.edu).

# Doctor of Philosophy in Renewable Natural Resources (PRNR), Watershed Science AOC (WSCP)

The Watershed Science AOC will require a minimum of 15 hours of coursework in addition to the general course requirements for all PhD students in the school. In particular, RNR 4900 Watershed Hydrology (3), or demonstration to the student's graduate committee of proficiency in watershed hydrology from previous coursework and experience, is part of the required 15 hours. The remaining 12 hours will be determined by each student's committee depending on the needs of the student and the committee-approved dissertation project. Depending on prior coursework and experience, additional courses will be required to satisfy the 34-hour course requirement for the PhD degree. Potential courses that could contribute to the educational goals of the student and satisfy course requirements in the Watershed Science AOC are available on the SRNR website (www.rnr.lsu.edu).

# Doctor of Philosophy in Renewable Natural Resources (PRNR), Wildlife AOC (WLDP)

The Wildlife AOC will require a minimum of 15 hours of coursework in addition to the general course requirements for all PhD students in the school. The following courses, or demonstration to the student's graduate committee of proficiency in one or more of these courses from previous coursework and experience, are required, and may be included in the 15 hours required for the Wildlife AOC:

- RNR 7013 Wildlife Population Dynamics (3)
- RNR 7016 Current Topics and Techniques in Conservation Science (3)

### Note:

Depending on prior coursework and experience, additional courses will be required to satisfy the 34-hour course requirement for the PhD degree. Additional courses required for each student's departmental-level academic course plan will be determined by the graduate committee. Potential courses that could contribute to the educational goals of the student and satisfy course requirements in the Wildlife AOC are available on the SRNR website (www.rnr.lsu.edu).

# Social Work (Graduate Program)

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

The LSU School of Social Work was founded in 1937 in the era of the "New Deal" programs, reflecting a growing need for professional social workers. The school has a reputation for excellence in professional education and a long tradition of service to the professional community. The focus of the school is to educate competent, professional social workers and early childhood specialists and to use research to enhance the effectiveness of social work practice and practice in the fields of child and family studies and early childhood administration and leadership. The school has a commitment to culturally competent practice, an equally strong commitment to the social work profession's core values of social and economic justice, respect for the dignity and worth of each individual, and the centrality of human relationships to well-being. The research infrastructure of the school includes active programs in the areas of juvenile justice, poverty, mental health, addictions, gerontology, community development, and child welfare. The school is a charter member of the Council on Social Work Education and its master's program has maintained continuous accreditation with this body since its inception.

# Administration

Wesley Church, Director

Denise Chiasson, Graduate Advisor (MSW Program) Scott Wilks, Graduate Advisor (PhD)

225-578-1357

TELEPHONE 225-578-5875

WEBSITE www.socialwork.lsu.edu

# Admission

FAX

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Office of Graduate Admissions. Official transcripts and other materials that come from third-party sources must be mailed to: Graduate Student Services, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Applications for admission are received and evaluated by the department. Applicants must adhere to the application deadlines established by the Graduate School and the School of Social Work. Students seeking admission must submit satisfactory credentials from previous study, and three letters of recommendation. International students whose native language is not English must also submit an acceptable TOEFL, IELTS, or PTE score.

The MSW Program has an application deadline date of **March 1** for Advanced Standing and **March 31** for the Full-time and Part-time programs. The application deadline for the MSW Online Program is multiple times per year. Please visit our website for more information. Full-time and part-time students are admitted for the fall semester of each year. MSW Online students are admitted at six different points during the year. Admission decisions are based on the applicant's academic record, letters of recommendation, letter of intent, work and volunteer experience, and resumé. A genuine interest in people and emotional stability are also important qualifications for admission to the school. No academic credit is granted for work or life experiences.

The following are requirements that must be completed prior to admission to the MSW program:

• A baccalaureate degree from an accredited college or university.

- Demonstration of a liberal arts undergraduate preparation through completion of at least 12 credit hours in the social and behavioral sciences (psychology, sociology, anthropology, human geography, economics, political science, curriculum & instruction, etc.), and at least nine hours in the humanities (literature, languages, history, women's studies, art or music history, philosophy, cultural and comparative studies, communication studies, etc.).
- "C" or better in an introductory statistics course in any undergraduate department.
- A 3.00 cumulative GPA on undergraduate coursework.
- Evidence that the applicant possesses the personal qualities and aptitudes essential for the social work profession.
- Information concerning these qualities will be obtained from the student's application materials and from present or former employers, teachers, and other persons acquainted with the applicant.
- Other materials as required in the application process:
  - 1. A completed LSU Graduate School online application (found on the Graduate School website).
  - 2. A completed School of Social Work supplemental application (found on the Social Work website).
  - 3. The MSW letter of intent (found on the Social Work website).
  - 4. Three letters of reference.
  - 5. Two official copies of all transcripts in sealed envelopes (all transcripts required, whether or not credit was earned or is desired, sent to the LSU Graduate School and School of Social Work).
  - 6. Professional resumé.

The PhD Program has a priority deadline date of **February 1** and admits students for the fall semester of each year. Applications received after March 1 and/or incomplete by March 1 will be considered on a space-available basis. Admission decisions are based on the applicant's academic record, GRE scores, personal qualifications, and proposed departmental-level academic course plan.

The following are requirements that must be completed prior to admission to the PhD program:

- A bachelor's degree from an accredited college or university with typical liberal arts, social sciences, introductory statistics, and human biology courses;
- An acceptable grade point average in undergraduate coursework (as evaluated by the School of Social Work and the Graduate School);
- A master's degree in social work from a CSWE accredited program or a closely related discipline. Preference will be given to applicants with the MSW. Students without the MSW will be required to enroll in SW 7004 Human Diversity and Oppression (3). Please contact the PhD Director for further information.
- A GPA in graduate studies of at least 3.00.
- Acceptable scores on the Graduate Record Exam (GRE) of at least 1000 or higher (old test) approximately 150 on both the quantitative and verbal sections (new test)
- Completion of a graduate research course with a grade of "B" or better.
  - Other materials as required in the application instructions (items 1, 2 and 3 must be completed online):
    - 1. The completed LSU Graduate School online application (found on the Graduate School website).
    - 2. The completed School of Social Work PhD application (found on the Social Work website).
    - 3. A completed plan of doctoral study, a 4-6 page (2000-2500 word) typed statement that addresses the following:
      - a. Describe your career goals in social work and how a PhD in social work will further those goals. Please state whether you plan to enroll on a part-time or full-time basis. If you plan to enroll full time, please clarify whether you hope to receive funding from the School and whether you plan to work part- or full-time while enrolled. Describe any relevant financial supports in place to assist you.
      - What are your areas of interest and your ideas for research? If you have plans for dissertation research, please describe them. Identify any faculty members that share your area of interest(s). Faculty information can be obtained at www.socialwork.lsu.edu.
      - c. What are your professional/scholarly areas for improvement, as you perceive them? Please describe your professional/scholarly strengths and abilities that you think will serve you well as a doctoral student.

- d. Please supply the admissions committee with one samples of your professional/scholarly writing that best illustrate your capacity for analytic and critical thinking. Briefly describe in your **Plan of Doctoral Study** why your writing selection is representative of these latter abilities.
- 4. Three letters of reference.
- 5. Two official copies of all transcripts in sealed envelopes (all transcripts are required, whether or not credit was earned or is desired, sent to the LSU Graduate School and the School of Social Work).

For more information on admission to the MSW or PhD program, please visit our website at www.socialwork.lsu.edu.

# **Financial Assistance**

Financial assistance is available to some students. Support may be available through the student's home department or other units in the form of research or teaching assistantships. A student should contact his or her home department for more information on available assistantship positions. To ensure consideration for financial aid, all application materials should be submitted in accordance with admission deadlines for the appropriate program.

# **Graduate Faculty**

(check current faculty listings by department here)

Priscilla D. Allen (M) • Gerontology, nursing homes, long-term ombudsman programs, policy issues

Cassandra Chaney (M) • African-American Family Dynamics; Narratives among Dating, Cohabiting, and Married African-American Couples; Religiosity/Spirituality and African-American Families; Black male-female relationship dynamics in popular forms of media (television, movies, song lyrics); Qualitative Methods

Wesley Church (M) • Juvenile delinquency, mental health delivery in the juvenile justice system, stigmatized incarcerated populations, family systems, and family dynamics

Cecile C. Guin (3F) • Death penalty mitigation, truancy issues, grant writing, juvenile justice

Youn Kyoung Kim (6A) • Resilience and behavioral health problems, HIV/AIDS and risky sexual behaviors among youth, international social work.

Catherine Lemieux (M) • Substance abuse assessment and intervention, evaluation of correction-based substance abuse programs, role of social support in recovery, development and testing of innovative teaching strategies that emulate core social work competencies, service-learning

Michelle Livermore (M) • Poverty and related policies, social development, community social capital, civic engagement, employment of women living in poverty

Elaine Maccio (M) • Gay and lesbian issues, gender and women's issues, diversity and multiculturalism, substance use/abuse and addictions

Brij Mohan (EM) • Mental health, social theory, philosophy of science, human diversity, oppression, international and comparative social welfare

Pamela Monroe (M) • Family policy, poverty, welfare reform, women's labor force participation, economic revitalization/work force development

Timothy F. Page (M) • Child and family treatment, attachment theory, vulnerable children, narrative methodologies with young children, clinical practice

Samuel Berwyn Robison (3F) • Program evaluation and intervention research, school and community prevention and early intervention, life pathways of at-risk children, political psychology of decision-makers, foreign policy analysis, and conflict studies

Jennifer Scott (6A) • Poverty, immigration, sociopolitical determinants of poverty, inequality and migration, international social work.

Scott Wilks (M) • Coping and resilience among dementia caregivers, custodial grandparent issues, gerontological social work Mi Youn Yang (6A) • Poverty, child abuse and neglect, child well-being

## Child and Family Studies, M.S.

#### (SCFS)

The graduate curriculum in Child & Family Studies provides advanced students with additional training in focused content areas as well as in research methods and statistics. M.S. graduates leave the program able to generate, evaluate, and apply researchbased knowledge to the challenges facing families and individuals in a complex and changing world. Flexible interdisciplinary programs of study, focused on preventing problems in families, are structured to meet students' specific interests. Graduates pursue exciting and challenging careers in working with families and/or children, prepared for leadership roles in non-profit and private agencies; faith-based organizations; consumer and business agencies and organizations; and federal, state, and local government.

The M.S. offers two options, thesis and non-thesis.

For the thesis option, the M.S. requires a minimum of 36 hours of graduate credit including 6 hours of thesis research (CFS 8000). At least 15 of the 30 hours must be in courses numbered at or above the 7000 level. Thesis students may substitute up to 3 hours of supervised practicum experience for one, 3 credit required academic elective if approved by the graduate committee.

For the non-thesis option, the M.S. requires a minimum of 36 hours of graduate credit with a minimum of 24 coursework hours, 6 hours of research seminar (CFS 7050) during which a graduate project will be prepared and presented, and 6 hours of supervised practicum experience. At least 18 of the 36 hours must be in courses numbered at or above the 7000 level.

## **Dual Degree: JD/MSW**

The LSU Law Center and the LSU School of Social Work offer a dual degree program through which a student may receive both a Juris Doctor (J.D.) and a Master of Social Work (M.S.W.) degree. Students successfully completing the dual degree program receive two separate degrees: a J.D. awarded by the Law Center and a M.S.W. awarded by the School of Social Work.

Although the two programs remain independent, the dual degree program accelerates the completion of both degrees because of each school's recognition of credit hours earned for course work completed in the School of Social Work as elective credits toward the J.D. degree and the School of Social Work accepts 9 credit hours completed in the Law Center as elective credits toward the M.S.W. The recognition of concurrent credit allows students to earn both degrees in approximately four years of full-time study (including summers).

Students wishing to participate in this program must meet the admission requirements for both the Law Center and the School of Social Work. Students must apply separately to the LSU Graduate School and the LSU Law Center, with appropriate LSAT scores provided. Students may begin the program in either the Law Center or the School of Social Work, but students must complete both the first year of the J.D. program at the Law Center and the Foundation Year of the M.S.W. program at the School of Social Work during the first two years of study. Thereafter, students may take a combination of Law and Social Work courses, provided that they meet the degree requirements of each program.

Students participating in this program are required to complete a graduate thesis in the School of Social Work. Students may fulfill the Law Center's upperclass writing requirement with the satisfactory completion of a graduate thesis on a topic with a substantial legal component. Satisfaction of the upperclass writing requirement in this manner requires advance permission of the Law Center's Associate Dean for Academic Affairs. In addition, at least one member of the Law Center faculty must serve on the committee under whose direction the thesis is completed. Students whose theses do not involve a substantial legal component must fulfill the upperclass writing requirement in the Law Center's prescribed manner.

## **Dual Degree: MSW/MPH**

**MSW-MPH Dual Degree** 

The LSU School of Social Work and the LSU Health Sciences Center SPH in New Orleans offer a dual-degree program through which a student will receive both the Master of Social Work (MSW) and a Master of Public Health (MPH) with a concentration in Behavioral and Community Health Studies. Students successfully complete the dual degree receive two separate degrees: the MSW awarded by the School of Social Work and the MPH with a concentration in Behavioral and Community Health Students successfully awarded by the School of Social Work and the MPH with a concentration in Behavioral and Community Health Students successfully complete the dual degree receive two separate degrees: the MSW awarded by the School of Social Work and the MPH with a concentration in Behavioral and Community Health Students awarded by LSU Health Sciences SPH.

The recognition of concurrent credit as described below allows a student to complete the requirement for both degrees in three years, including summer semesters, instead of the four years that otherwise would be required. By obtaining the dual degree, students will be equipped with the knowledge and skills necessary to promote health, prevent disease, and enhance the delivery of evidence-based health and social services in the community. Upon completion of the MSW-MPH dual-degree program, graduates will demonstrate knowledge of the breadth of each field and their interface, as well as have ability to incorporate interdisciplinary skills in public health and health-related settings. The MSW-MPH dual-degree program is designed to prepare graduates for work in a variety of interdisciplinary health and health-related settings and, for some, may provide a basis for future doctoral study.

Although the two programs remain independent, the dual degree accelerates the completion of both degrees because of each school's recognition of credit hours earned for course work completed in the MSW-MPH dual-degree students will satisfy the requirements for 60 MSW credit hours and a minimum of 45 MPH credit hours. Students enrolled in the MSW-MPH dual-degree program will complete a minimum of 92 credit hours.

Students wishing to participate in this program must meet the admission requirements for both the LSU Graduate School, School of Social Work, and the LSUHSC. Students must apply separately to the all three schools, with appropriate test scores provided. Application to the LSUHSC SPH is made through the Schools of Public Health Application Service (SOPHAS), a centralized admissions system used by the Association of Schools and Programs in Public Health.

Students will begin this dual degree program within the School of Social Work, and the first year would be devoted exclusively to the first-year social work requirements. The remaining years will be devoted to a combination of MSW and MPH courses, with the MPH Culminating Course and MSW Capstone experience occurring in the 3<sup>rd</sup> year. The respective faculties of the SPH-BCHS program and the SSW have approved an award of **13** hours of MSW credit toward the MPH degree for courses taken in the SSW, and of **12** hours of MPH credit toward the MSW for courses taken in the SPH.

Social work students will have the option of a thesis or non-thesis Capstone experience. The total number of hours for the MSW curriculum (60) would not change under the dual degree program. No web-based social work courses can be taken through the *LSU MSW Online* program; however, web-based social work courses that are offered during regular LSU Baton Rouge campus semesters can be taken.

## Social Work, M.S.W.

#### Master of Social Work (MSW)

The MSW curriculum consists of 60 hours of graduate study, including field internship that can be completed in two calendar years of full-time study. The School offers full-time, part-time, online education, or advanced standing program options. Students with a Bachelor of Social Work may be eligible for the advanced standing program, which consists of 30-33 hours of graduate study including three required hours taken in the summer term. The first year of the program is structured to provide the knowledge, skills, and values required for all social work practice. This includes environment and field instruction. The advanced year provides instruction in advanced direct practice, advanced social policy, program evaluation, 12 hours of electives, and advanced field internship. The field education office places students in an internship in the Baton Rouge area or an agency near the student's home that will provide a good educational experience in a supervised setting.

# **Field Education**

Professional social work education has a strong tradition of interweaving theory and practice through a field internship program. In addition to classroom studies, students in the MSW program at LSU normally spend about 240 hours each semester or module in a social service agency. All placements are arranged by the field office within the school. The school has a large number of field placements in a wide variety of settings, including family and children's services, hospitals, counseling centers, mental health agencies, community centers, legislative offices, and advocacy groups. The internship program allows students to develop their practice skills and to apply theory and knowledge in real-life settings.

#### DEGREE REQUIREMENTS:

The degree requires successful completion of a **thesis or non-thesis** option. **Sixty hours** of credit at the graduate level must be earned including a minimum of six hours of credit for the thesis. Candidates for the MSW degree will complete a **thesis** or non-thesis activities in the semester or module they intend to graduate.

The curricular requirements include:

- Successfully completing *at least 60 hours* at the graduate level with the exception of advanced standing students, who must complete at least 30-33 hours at the graduate level;
- Successfully completing a minimum core requirement of 48 credit hours and 12 hours of elective credit;
- Maintaining an overall grade point average of 3.00, with no grade less than "C" in any course offered for the degree. No more than six hours of credit received with a grade of "C" can be counted toward the MSW degree; and
- Successfully completing the exit requirement: a thesis or a non-thesis option.

## Social Work, Ph.D

### (PSW)

The PhD in social work is aimed at providing an advanced interdisciplinary degree that will equip graduates for important roles in policy analysis and development, research, and teaching. The period of study for the doctoral degree in social work is typically three to five years, but is not to exceed seven years.

The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

The degree requires students to:

- Successfully complete 54 semester hours of study, including 15 hours of dissertation, which must be completed within seven years from being classified as a doctoral student.
- Maintain an overall grade point average of 3.00, with no grade less than "C" in any course offered for the degree.
- Demonstrate mastery of a broad major field (i.e. social work) as evidenced by passing the general examination.
- Satisfactorily complete the exit requirement: the dissertation and the dissertation defense.

The curricular requirements include:

- Successfully complete at least 54 hours of graduate level work maintaining an overall grade point average of 3.00, with no grade less than "C" in any course offered for the degree. No more than six hours of credit received with a grade of "C" can be counted toward the PhD degree.
- a minimum core requirement of *15 credit* hours in social work foundation courses, 12 credit hours in research and statistics, 12 hours of interdisciplinary course work and at least 15 hours of dissertation credit
- The student must pass a general exam consisting of a written exam and oral exam.

## Concentration in Child & Family Studies

The Ph.D in Child and Family Studies (CFS) concentration is a minimum of 15 hours of designated CFS research and elective courses, in lieu of 12 hours of research cognate and interdisciplinary electives currently required of the Ph.D in Social Work degree. The CFS concentration courses include: Advanced Studies in Family Science, Advanced Studies in Child Development, Theories of Child Development, Theories in Family Science, Research Methodology in Child and Family Studies. Successful completion of the CFS concentration requires fulfillment of all requirements of doctoral students in Social Work.

## Sociology (Graduate Program)

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

Established in 1928 as a separate academic unit, the Department of Sociology is one of the oldest such programs in the South. The first MA degree was awarded in 1931 and the first doctorate in 1937. The department now has granted over 210 MA degrees and over 160 PhD degrees. Our department has maintained a very high national reputation in research productivity, as faculty from leading departments around the country have joined LSU. Recently, the department has been well known for its main research areas, specifically in social inequality, social capital, and criminology.

One of the most important goals of the Department of Sociology is to offer a quality departmental-level academic course plan that meets the needs and interests of each student. One testament to the quality of the program is the fact that most of our graduates with PhD degrees have been appointed to teach and conduct research at various universities, both at national and regional levels. The ratio of faculty to students consistently remains at a level that facilitates close consultation between the two. The result is a friendly and positive environment for graduate study.

Yoshinori Kamo, Chair

Lori Martin, Director of Graduate Studies

 TELEPHONE
 225-578-1785

 FAX
 225-578-5102

WEBSITE www.lsu.edu/sociology

# Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803.

Applications for admission are received and evaluated by the department primarily for fall admission. Applicants must adhere to the application deadlines established by the Graduate School. The application deadline is **January 31**. Although they are considered after January, it is highly recommended that applications be submitted early because we may stop accepting any applicants after a certain date.

Students seeking admission must submit satisfactory credentials from previous study, acceptable *GRE* scores, and three or more letters of recommendation. International students whose native language is not English must also submit an acceptable TOEFL, IELTS, or PTE score.

# **Financial Assistance**

Financial assistance is available to most students. Support may be available through the department or other units in the form of research or teaching assistantships. A student should contact the department for more information on available assistantship positions. Department graduate assistantships provide an annual stipend of a minimum of \$15,050 with free tuition. A number of enhancements and fellowships are available to students and are awarded on a competitive basis.

# **Graduate Faculty**

(check current faculty listings by department here)

Michael S. Barton (6A) • Criminology, urban sociology Sarah Becker (M) • Communities and crime, race/class/gender, ethnography Dana Berkowitz (M) • Gender, sexualities, families Troy C. Blanchard (7M) • Social inequality, demography, criminology Yoshinori Kamo (M) • Family, inequality, comparative studies, quantitative methods Rhiannon A. Kroeger (6A) • Social demography, health, race, class, gender Matthew R. Lee (M) • Criminology, communities and crime, health, race/ethnicity Lori L. Martin (M) • Race and ethnicity, demography, inequality Michelle M. Meyer (6A) • Disaster, environment, community Heather A. O'Connell (6A) • Race and ethnicity; social stratification; spatial demography Heather M. Rackin (6A) • Population, medical sociology, family Mark J. Schafer (M) • Sociology of education, development, social change, rural sociology Edward S. Shihadeh (M) • Criminology, demography Wesley M. Shrum, Jr. (M) • Science and technology, culture, networks, video ethnography Tim Slack (7M) • Rural sociology, poverty, demography Samuel Stroope (6A) • Health, research methods, culture/religion Jose A. Torres (6A) • Population and development, demography, environment Matthew A. Valasik (6A) • Criminology; social control; race and ethnicity; policing Mark H. Walker (6A) • Social psychology, self and identity, social networks Frederick D. Weil (3A) • Community, social capital, political sociology

# Sociology, M.A.

#### (ASOCL)

The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

We have thesis and non-thesis degrees requiring a thesis and empirical research paper, respectively. Thirty-six (36) hours of credit at the graduate level must be earned including a maximum of six hours of credit for the thesis or empirical paper to count toward graduation. The curricular requirements include:

- At least 6 credits from 7000-level sociology topical seminars (SOCL 7351, SOCL 7391, SOCL 7491, SOCL 7591, SOCL 7691),
- A minimum core requirement of 12 credit hours in sociological theory, methods, and statistics,
- Other graduate-level courses.

The student must pass a final exam consisting of a thesis or empirical research paper and an oral defense.

## Sociology, Ph.D.

#### (PSOCL)

The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members such that the LSU Graduate School's requirements for graduate committees are satisfied.

The degree requires a doctoral dissertation. Fifty-four (54) hours of credit at the graduate level must be earned including a maximum of nine hours of credit for the dissertation to count toward graduation. The curricular requirements include:

- At least 12 credits from 7000-level sociology topical seminars (SOCL 7351, SOCL 7391, SOCL 7491, SOCL 7591, SOCL 7691),
- A minimum core requirement of 21 credit hours in sociological theory, methods, and statistics,
- Other graduate-level courses.

The student must pass a general examination following completion of required coursework consisting of written and oral assessments. The student then defends a dissertation proposal and must pass a final examination upon completion of his/her PhD dissertation. The final examination is a culmination of graduate study and consists of an oral defense of the dissertation.

# **Stephenson Department of Entrepreneurship & Information Systems (Graduate Program)**

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

The Stephenson Department of Entrepreneurship & Information Systems offers two graduate degree programs: the MS in Analytics and the PhD in Business Administration with a concentration in ISDS. These programs are discussed below.

# Administration

Edward F. Watson III, Chair and MS Analytics Academic Advisor

Karen Garner, Senior Coordinator

Rudy Hirschheim, PhD ISDS Academic Advisor

Gabrielle LeBoeuf, MS Analytics Coordinator

Joni Shreve, MS Analytics Program Advisor

TELEPHONE	225-578-2515

FAX 225-578-2511

E-MAIL sdeis@lsu.edu

WEBSITE lsu.edu/business/sdeis

# Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These documents are stored electronically. Departments have access to all materials submitted by and/or on behalf of a student applying to graduate study (see gradschool.lsu.edu/ for more information).

## **Minor in ISDS**

Students minoring in ISDS must take 12 hours of 5000-level or higher courses. At least six hours must be ISDS PhD core courses, i.e., ISDS 7950, ISDS 7080, ISDS 7081.

Students with a major outside the E.J. Ourso College of Business may be required to enroll in one or more remedial courses before taking other courses in the department.

Students minoring in ISDS and with a GPA less than 3.5 in ISDS courses shall be required to take a four-hour written exam designed and evaluated by their minor professor.

The evaluation of the written exam shall be reported to the graduate advisor in the student's major department rather than to the student.

# **Graduate Faculty**

(check current faculty listings by department here)

Joseph Cabral (6A) • Innovation strategy, startup-incumbent collaboration and entrepreneurial finance

Ye-Sho Chen (M) • Global eBusiness, knowledge management, technological entrepreneurship, doing business in China Young H. Chun (M) • Probabilistic modeling, software quality management, decision analysis, information economics, data mining

Rudy Hirschheim (M) • Information systems management and development, IT sourcing, philosophy of science, service-oriented architecture

Peter Kelle (M) • Supply chain management, buyer-supplier negotiations, enterprise systems, and inventory management Franz Lohrke (M) • Organizational legitimacy, slack resources, organizational turnaround.

Nan "Peter" Liang (6A) • Information security and security training, malicious insiders, big data and application

Yang Pan (6A) • Business analytics, IT firm's strategic behavior, financial technology, technology platforms

Gabriele Piccoli (M) • Digital data streams, customer service systems, strategic information systems

Helmut Schneider (M) • Total quality management, supply chain management, data mining, and statistical analysis of crash data Andrew Schwarz (M) • IT acceptance, adoption and use, IT governance, IT-business alignment; implementation and diffusion of technology within organizations, and future technology trends

Joni A. Shreve (3P) • Data mining and predictive modeling with an emphasis on classification analysis

Reg Tucker (6A) • Mental health & entrepreneurship, social entrepreneur motivation, entrepreneurial ecosystems

James Van Scotter (M) • eCommerce and communication, IT workforce, research methods and measurement

Edward Watson (M) • Enterprise systems, digital transformation, IT innovation, decision support, simulation and serious games Sonja Wiley (M) • Medical informatics, bioinformatics, IT adoption and diffusion, eCommerce, and organizational and social impacts of IT

## **Analytics Graduate Certificate**

(CANLY)

A Graduate Certificate in Analytics can be obtained by earning a minimum of a 3.0 average in the four analytics courses listed below. Substitution of courses may be permitted if equivalency is established by the chair of the department. The mode of delivery is through LSU Online. While there are no prerequisites to these courses, admission to the Graduate School is required, and an introductory course in statistics and information systems is recommended before enrolling in the course sequence.

- ISDS 7301 Analytics I (3)
- ISDS 7302 Analytics II (3)
- ISDS 7303 Analytics III (3)
- ISDS 7304 Analytics IV: Design and Analysis of Analytics Projects (3)

To apply for the Graduate Certificate in Analytics program, visit the Graduate School website, go to Prospective Students, select degree seeking, then Apply Online.

For further information, please contact the Stephenson Department of Entrepreneurship & Information Systems at 225-578-2126 or sdeis@lsu.edu.

#### Analytics, M.S.

#### (SISDS)

Click here to view the Master of Science in Analytics website.

Students enrolled in the Master of Science in Analytics (MSA) program (ISDS) learn to blend information management techniques and advanced statistical methods to distill critical business information from complex and often massive data sets. The program is designed for students with undergraduate degrees in business, mathematics, statistics, engineering, or computer science with strong quantitative skills.

Students will complete 36 hours of intensive coursework over a twelve month period. The MSA curriculum integrates relevant topics from statistics, operations research, information systems, and communication. The program uses a cohort–based learning model that emphasizes teamwork and presentation skills using state-of-the-art visualization techniques. Specific curricular requirements are listed below:

- A total of at least 36 hours of credit at the graduate level.
- At least 21 hours of the graduate credit must be at the 7000 level or above, excluding thesis hours.
- Six hours of thesis/project work (two three-hour sections of ISDS 7990 taken consecutively in the fall and spring semesters).
- A passing grade on the final examination.

The Department of ISDS admits students to the MSA program only for the summer semester. Classes start the first week of June and end with commencement the following May. The application deadlines for the MSA are December 15<sup>th</sup> for international applicants and March 31<sup>st</sup> for US citizens and permanent residents.

All applicants must meet the minimum requirements for LSU, which are listed on the <u>Graduate School website</u>. Preference is given to applicants with higher GPAs and higher scores on the GMAT or GRE, and particularly to those with higher scores on the quantitative portion of the GMAT or GRE.

# **Business Administration, PhD (Information Systems & Decision Sciences)**

# Doctor of Philosophy (PhD) in Business Administration with a concentration in Information Systems and Decision Sciences (PBAIS)

The PhD program (PhD in business administration with a concentration in ISDS) is designed for full-time study and involves 60 credit hours at the graduate level. The program consists of 12 hours breadth of study in the four business disciplines: accounting, finance, marketing, and management; 12 hours of major field core courses; 9 semester hours in a minor area; 12 hours of research methodology; 6 semester hours in a supporting area; and 9 hours of dissertation studies. The breadth of study course requirement may be satisfied by prior undergraduate or graduate coursework in the four business areas. Students should plan to spend two academic years (fall and spring) completing coursework and spend the summer working on independent research projects under their advisor's supervision. The specific departmental-level academic course plan must be approved by the student's advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied. Upon completion of the coursework, excluding breadth of study, the candidates must pass written and oral comprehensive examinations and design, implement, and complete an original dissertation under the supervision of an ISDS faculty member. Completion of the dissertation usually takes 12 to 18 months. Overall, the PhD program normally requires four years to finish.

Please refer to the departmental website for additional information.

# Textiles, Apparel & Merchandising (Graduate Program)

# **Program Overview**

The Textiles, Apparel and Merchandising (TAM) graduate program, formerly concentrations in Human Ecology, is now in the Department of Textiles, Apparel Design, and Merchandising. This change does not alter the faculty composition in these areas of research or the faculty's commitment to graduate education.

TAM has four concentrations: apparel design, historic/cultural aspects of textiles and apparel, merchandising, and textile science.

MS and PhD programs offer students choices within each concentration. Flexible interdisciplinary programs can be structured to meet each individual student's specific interests. These programs may span textiles, apparel and merchandising and extend to other departments at LSU. Joint research efforts with many other departments exist.

TAM also collaborates with the Louisiana Agricultural Experiment Station—the research unit of the LSU Agricultural Center and the Pennington Biomedical Research Center. Additionally, external collaboration with institutions and industry partners such as the USDA Southern Regional Research Center and other external institutions extend educational opportunities for students.

### Administration

Jenna T. Kuttruff, Department Head and Graduate Advisor

Melinda Mooney, Graduate Coordinator

TELEPHONE 225-578-2281

FAX 225-578-2697

E-MAIL tamlsu@lsu.edu

WEBSITE www.tam.lsu.edu

### Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must also be submitted online. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Applications for admission are received and evaluated by the department as they are received, but usually for fall admissions the preferred submission date is February 1 and the evaluations for fellowships and graduate assistantships are completed by late March. Applicants must adhere to the application deadlines established by the Graduate School.

Students seeking admission must submit satisfactory credentials from previous study, acceptable GRE scores, and three letters of recommendation. These letters should be from previous professors, mentors and/or employers and address likelihood for success in a graduate program. International students, whose native language is not English, must also submit an acceptable TOFEL, IELTS, or PTE score.

When all admission requirements are met, full admission will be considered. On very rare occasions, if a student does not meet all requirements, a student may be admitted provisionally.

Interested applicants are encouraged to contact appropriate faculty members in the department to learn more about the program.

### **Financial Assistance**

Limited financial assistance is available. Support may be available through the student's home department or other units in the form of research or teaching assistantships. A student should contact his or her home department for more information on available assistantship positions. To ensure consideration for financial aid, all application materials should be submitted in accordance with deadlines established by the LSU Graduate School.

TAM graduate fellowships and teaching and research assistantships are awarded competitively, based on qualifications and availability. The number and dollar amount of the assistantships vary depending on the available funding. The department nominates students for fellowships.

## **Graduate Faculty**

(check current faculty listings by department here)

#### **Textiles, Apparel Design, & Merchandising**

Bruce A. Cameron (M) • Textile science, textile chemistry, effectiveness of laundry detergents, product development, scholarship of teaching; sustainability

Jenna T. Kuttruff (M) • Historic and sociocultural significance of textiles and apparel; analysis, interpretation and conservation of archaeological textile remains

Chunmin Lang (6A) • Sustainability, product-service retailing models, consumer behavior, apparel retailing & brand management

Chuanlan Liu (M) • Consumer behavior, retail market research, retailing management and apparel merchandising and

entrepreneurship

Ioan Negulescu (M) • Textile science, chemistry of natural fibers and fiber-forming polymers, physical and chemical characterization of textiles

Casey Rhea Stannard (6A) • Role of traditional textile handcrafts in contemporary society; sustainable aspects of apparel design; social psychological aspects of apparel design; creative scholarship incorporating fiber art techniques, theory based design, and 3D design technology

#### Textiles, Apparel & Merchandising, M.S.

#### (STAM)

The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

The thesis option master's program requires a minimum of 24 credits of approved coursework and six hours of thesis credit. The non-thesis option master's program requires 30 semester hours of approved coursework and six semester hours of project credit. In case of deficiencies in undergraduate preparation, additional courses will be required.

The degree is a thesis/non-thesis degree requiring a thesis/special project. The curricular requirements include:

at least 12 hours at the 7000 level or above for a thesis degree and at least 18 hours at the 7000 level or above for a non-thesis degree a minimum core requirement of at least six credit hours in Research Methods and Statistics

The student must pass a final exam consisting of a comprehensive oral exam, typically a defense of a thesis/special project.

### Textiles, Apparel & Merchandising, Ph.D.

#### (PTAM)

The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least three additional members of the graduate faculty, including the dean's representative, such that the LSU Graduate School's requirements for graduate committees are satisfied.

The PhD degree is a research degree requiring a dissertation. A minimum of 80 hours of credit at the graduate level must be earned including formal coursework beyond the bachelor's degree and a minimum of 20 hours in the formulation and execution of original research, as demonstrated by production of a dissertation. The curricular requirements include:

- At least 39 hours at the 7000 level or above.
- A primary area consisting of a minimum of 60 hours of earned credit in a specified field of study
- A minimum core requirement of at least 15 credit hours, primarily in Research Methods and Statistics

The student must pass a general exam consisting of both a written and an oral portion exam. The student must also pass a final exam, dissertation defense.

### **Theatre (Graduate Program)**

For information regarding the UNDERGRADUATE PROGRAM, click here.

# **Program Overview**

The LSU School of Theatre continues to achieve national and international prominence in scholarship and performance. The MFA degree— with a specialization in acting—is a two-year, year-round professional actor training program featuring the integration of both traditional and innovative physical, vocal, and process approaches for 21st century performers. The MFA acting program begins in the summer term and runs for two consecutive years. The MFA degree—with specializations in scenic technology and design; costume technology and design; and properties technology— is a three-year program preparing the theatre artisan for a professional role encompassing a wider range of production and/or teaching responsibilities. The training for exceptional candidates is augmented through undergraduate teaching opportunities and production positions with Swine Palace, the department's affiliate professional theatre. Our PhD program—with concentrations in theatre history, dramatic literature, and theory and criticism—develops the knowledge, critical skills, and methodological approaches that will allow students to conduct research as professional scholars and become excellent teachers in the field. The School of Theatre fosters creativity and originality in its stage productions and scholarship, and offers a learning environment unique to the region.

With Swine Palace, the school has distinguished itself as one of the few programs in the country that supports a full-time, yearround equity theatre company.

While pursuing their degrees, students have the opportunity to work alongside world-class artists in every facet of production. Many students are Actors' Equity Association (AEA) eligible by the time they graduate.

### Administration

Kristin Sosnowsky, Chair

John Fletcher and Shannon Walsh, Co-Heads of PhD Program

Nicholas Erickson, Head of MFA Acting Program

James L. Murphy, Head of MFA Technology and Design Programs

School of Theatre TELEPHONE	225-578-4174
FAX	225-578-4135
WEBSITE	www.theatre.lsu.edu

### Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Applications for admission are received and evaluated by program heads in the School of Theatre. Applicants must adhere to the application deadlines established by the Graduate School.

Students seeking admission must submit transcripts of all previous university work, three letters of recommendation, a résumé, and a statement of goals. Individual programs have additional requirements as follows:

- PhD current GRE scores; a statement of purpose; and a writing sample, preferably a research paper written for a graduate course. Phone or online interviews may follow.
- MFA with specialization in acting—an audition.

- MFA with specialization in costume technology and design, or properties technology—a portfolio and a personal interview.
- MFA with specialization in scenic technology and design—current GRE scores; a portfolio and a personal interview.
- International students whose native language is not English must also submit an acceptable TOEFL, IELTS, or PTE score.

### **Financial Assistance**

Financial assistance is available to some students. Support may be available through the student's home department or other units in the form of research or teaching assistantships. A student should contact his or her home department for more information on available assistantship positions. To ensure consideration for financial aid, all application materials should be submitted in accordance with deadlines established by the LSU Graduate School. School deadlines for funding are January 15 for the PhD program and March 1 for the MFA program.

### **Graduate Faculty**

(check current faculty listings by department here)

John Eddy (3F) • Stage Properties and Design Kenneth M. Ellis (6A) • Scenic Design Nicholas Erickson (M) • Movement for the actor Femi Euba (M) • Playwriting, black drama, dramatic literature John Fletcher (M) • Theatre history, theory, literature Richard Holben (M) • Acting, directing George Judy (M) • Acting and directing Kyla Kazuschyk (6A) • Costume Design and Construction James L. Murphy (M) • Theatre technology and design Shannon Marie O'Neill (6A) • Sound Design, Composition and Technology Joshua Overbay (6A) • Film and Television Adam Parboosingh (6A) • Lighting and Projection Design Sandra Parks (6A) • Dance Alan Sikes (6A) • Theatre History, Theory, Women's and Gender Studies Kristin Sosnowsky (M) • Arts administration Shannon Walsh (6A) • Theatre history, Women's and Gender Studies Christopher H. Wood (3P) • Scenic Technology

### Theatre, M.F.A.

#### (MFATH)

(Specializations in Acting; Costume Technology and Design; Properties Technology; Scenic Technology and Design).

The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

The curricular requirements include:

MFA (specialization in Acting)

• Two consecutive years of residency including summer sessions.

- 71 credit hours exclusive of thesis credit.
- Minimum of six credit hours in THTR 8000 Thesis Research (1-12 per sem.).
- Thesis project focused on the preparation, rehearsal and performance of a significant role.

MFA (specializations in Costume Technology and Design; Properties Technology; Scenic Technology and Design)

- Three consecutive years of residency.
- 67 credit hours exclusive of thesis credit.
- Minimum of six credit hours in THTR 8000 Thesis Research (1-12 per sem.).
- Thesis project focused on a topic pertaining to the field or on a primary position on a Mainstage production.

#### Theatre, Ph.D.

#### (PTHTR)

(Specializations in Theatre History, Dramatic Literature, Theory, and Criticism)

The departmental-level academic course plan for each student will be developed in consultation with and approved by the student's graduate advisory committee. The committee will include the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

The curricular requirements include:

- Minimum of 81 credit hours past the BA (excluding a minimum of nine dissertation hours); MA or MFA can count for up to 30 hours.
- Nine to 12 credit hours in minor.
- Three credit hours outside of major and minor (7000) level.
- Three credit hours in non-Western theatre, art, or culture.
- Three credit hours in THTR 7900 Introduction to Graduate Study in Theatre (3).
- Six credit hours in theory sequence (THTR 7924 and THTR 7925).
- 15 hours in literature and history (THTR 7901, THTR 7902, THTR 7903, THTR 7904, THTR 7912, THTR 7913, THTR 7914)
- Three credit hours in THTR 7920 Seminar in Drama of the African Diaspora (3).
- Three credit hours in a Women's and Gender Studies course.
- Three credit hours in a pedagogy-focused course.
- Three credit hours of electives.
- Nine credit hours for dissertation (THTR 9000).
- Satisfy reading capability of foreign language.
- Successfully defend prospectus.

# **Annual Review**

Every spring semester, students in the PhD program will submit yearly reports of their curricular, production, and scholarly work over the past year. PhD faculty will hold meetings reviewing student progress at the conclusion of each spring semester. Students will receive feedback regarding the evaluation of their progression through the program.

#### General exams:

Successful completion of general exams will involve three components:

I. Comprehensive written exams (two four-hour exams)

- a. First exam primarily short answer (general breadth—content questions from the areas of Theater History/Practice, Dramatic Literature, and Theory/Criticism).
- b. Second exam broader essays, three out of four (integrative—address important issues in Theater Studies through an integrated approach utilizing historical, critical, and literary analysis).
- II. Professional competencies/portfolio
  - a. Statement of teaching philosophy
  - b. Book and/or performance review
  - c. Bibliography for specialty area
  - d. Essay revised for journal submission
  - e. Updated professional C.V.
- III. Prospectus writing and defense
  - a. Specialty question (a written research project intended to prepare the student for the prospectus)
  - b. Prospectus writing (completed under the supervision of the major advisor)
  - c. Creation of dissertation committee
  - d. Prospectus defense with dissertation committee

# **Final defense**

A successful oral defense of dissertation before committee members and submission of the dissertation to the Graduate School is required.

### **Veterinary Clinical Sciences (Graduate Program)**

# **Program Overview**

Located in the School of Veterinary Medicine, the graduate academic and research program of the Department of Veterinary Clinical Sciences offers a dynamic environment to prepare nationally competitive veterinary clinicians in research methodology for placement in advanced clinical, academic, and industrial research positions. Programs are designed to enhance skills in clinical research of direct application to animal and human disease. This area of emphasis is supported by departmental clinical expertise in anesthesia and analgesia, cardiology, dermatology, internal medicine, small animal soft tissue surgery, basic and applied orthopedic surgery, integrative medicine and rehabilitation, emergency and critical care, equine medicine and surgery, food animal medicine, shelter medicine and theriogenology. The program draws on expertise in anatomy, bioengineering, biomechanics, biotechnology of infectious diseases, cell and molecular biology, toxicology, and virology through the School of Veterinary Medicine umbrella program in graduate studies and in collaborative studies with other units on campus. Interdisciplinary and multidisciplinary research is emphasized, and because of the wide array of immediate expertise, graduate programs are flexible to meet students' needs.

### Administration

Dale L Paccamonti, Head

Carlos R. Pinto, Graduate Advisor

TELEPHONE

225-578-9551

#### 225-578-9218

WEBSITE

www.lsu.edu/vetmed/vcs

### Admission

Applications and supporting materials for all graduate study must be submitted through the online application site for the LSU Graduate School. Official transcripts, official test scores, and other materials that come from third-party sources must be mailed to: LSU Office of Graduate Admissions, 114 West David Boyd Hall, Baton Rouge, LA 70803. These paper documents are stored electronically and departments have access to all materials submitted by and/or on behalf of a student applying to graduate study.

Applicants must have a DVM (or equivalent) degree or a bachelor's degree. Applicants for combined residency/MS programs must apply through the Veterinary Intern & Residency Matching Program. Candidates for the combined residency/MS programs must have a DVM or equivalent degree; must have completed a rotating internship or equivalent training; and must submit a letter of intent, transcript of grades from veterinary school, and three letters of reference in accordance with the guidelines listed on the website. To qualify for the combined residency/MS program, applicants must satisfy all criteria for residency training and Graduate School admission.

Applications are accepted at any time but are evaluated only after all supporting documents and credentials (official transcripts, official GRE scores, Graduate School application for admission, application fee) have been received. Application should be initiated at least six months prior to anticipated entry. One of the graduate faculty members of the department must have accepted you as a student in his/her laboratory before admission will be considered.

Unconditional admission to the Graduate School for MS and PhD programs requires that applicants score at least 300 on the GRE (verbal plus quantitative scores) and have an overall grade point average in veterinary or undergraduate school of at least 3.00 on an "A" = 4.0 scale. Foreign nationals from countries where English is not the first language must have a TOEFL score of at least 550 on the paper-based test or 79 on the Internet-based test, have an IELTS score of at least 6.5, or have a PTE score of at least 59 and meet standards of proficiency in English as required by the Graduate School.

### **Financial Assistance**

The salary for combined residency/MS programs is listed on the Veterinary Internship & Residency Matching Program website. Stipends, fellowships, and assistantships from various sources are available on a competitive basis for master and doctoral students not enrolled in residency programs.

### Facilities

The department supports a well-equipped veterinary referral hospital with specialty services in anesthesia; bird, zoo and exotic animal medicine; companion animal medicine; cardiology; companion animal soft tissue and orthopedic surgery; dermatology; emergency and critical care; equine medicine; equine surgery; food animal medicine; integrative medicine; medical oncology; ophthalmology; radiation oncology; diagnostic imaging; shelter medicine and theriogenology. The department has laboratories equipped for physiological research, cell biology, membrane physiology, PCR technology, gene expression, kinesiology, biomechanical testing, stem cell biology, and assisted reproduction. In addition, support from a full-capability gene research laboratory; cell and organ culture facilities; fluorescent activated cell sorting and analysis; cytokine, lymphokine and monoclonal antibody techniques; and a microscopy center with confocal and electron microscopy provide for diverse research endeavors. The department forms the base of the interdepartmental Equine Health Studies Program and is supported by well-equipped animal facilities.

FAX

## **Graduate Faculty**

(check current faculty listings by department here)

Frank M. Andrews (M) • Equine gastroenterology, intestinal physiology Karanvir Karanvir Aulakh (6A) • Companion animal surgery Heidi Banse (6A) • Equine internal medicine (Physiology and Endocrinology) Renee T. Carter (3P) • Ophthalmology Ann Chapman (3P) • Equine infectious diseases; Equine asthma Jeannette Cremer (6A) • Anesthesia and analgesia Rebecca Csomos (6A) • Small animal surgery Anderson da Cunha (M) • Anesthesia and analgesia Chiara de Caro Carella Hampton (6A) • Anesthesia and analgesia Jon M. Fletcher (6A) • Companion animal medicine Frederic P. Gaschen (M) • Companion animal, gastroenterology, endoscopy Lorrie Gaschen (M) • Diagnostic imaging Alberto Gines (6A) • Small animal surgery L. Abbigail Granger (M) • Diagnostic imaging Amy M. Grooters (M) • Small animal internal medicine, pythium Andrea Johnston (6A) • Hepatobiliary disease, molecular cell death signaling pathways Britta Leise (6A) • Equine laminitis, inflammation and epithelial cell function Andrew Lewin (6A) • Ophthalmology Mandi J. Lopez (M) • Comparative orthopedics Charles McCauley (3P) • Equine surgery Colin Mitchell (3P) • Equine surgery Mark Mitchell (M) • Avian, zoo and exotic animal medicine Javier Nevarez (M) • Avian, zoo and exotic animal medicine Dale L. Paccamonti (M) • Equine reproduction, assisted reproduction Carlos R. Pinto (M) • Reproductive endocrinology and assisted reproduction Cherie M. Pucheu-Haston (M) • Dermatology and immunology Patricia Queiroz-Williams (3P) • Anesthesia and analgesia Natalie Rademacher (M) • Diagnostic imaging Laura M. Riggs (M) • Equine laminitis and inflammation Clare Scully (3P) • Analgesia; assisted reproductive techniques in small ruminants Sita S. Withers (6A) • Comparative cancer immunology Jenny Sones (6A) • Pregnancy physiology Joseph Taboada (M) • Small animal internal medicine, gastroenterology Thomas N. Tully Jr (M) • Avian, zoo, and exotic animal medicine Matthew G. Welborn (3F) • Food animal medicine and surgery

## **Recent Faculty Publications**

For a listing of publications, please review the most recent departmental annual report.

# **Biomedical and Veterinary Medical Sciences- Veterinary Clinical Sciences, M.S.**

(SVMCS)

The Department of Veterinary Clinical Sciences offers an M.S. in Biomedical and Veterinary Clinical Sciences with emphasis in clinical sciences. The graduate program of study and research are directed and evaluated by the student's graduate committee. This committee is composed of at least three members of the graduate faculty. Master's graduate students must complete a minimum of 30 credit hours of graduate courses, a final examination, and a thesis. The coursework requirements are as follows:

- at least 12 hours of 7000-level or higher courses (VMED 8000 does not count toward this total)
- at least 6 hours of VMED 8000 Thesis Research (maximum of 6 hours counted toward degree)
- 2 hours of VMED 7004 Introduction to Research
- at least 3 hours of statistics courses from the following EXST 7003, EXST 7004, EXST 7005, PBS 7002 or PBS 7312
- at least 2 hours of VCS 7001 Seminar (maximum of 4 hours)
- at least 2 hours of VCS 7210 Journal Review (maximum of 4 hours)
- a maximum of 6 hours VCS 7003 Special Topics
- at least 3 hours from the following VCS 7201-VCS 7215, CBS 7104, PBS 7431, CBS 7109, CBS 7628, ANSC 7051, or ANSC 7052

4000 level courses that support general knowledge needed for research and to prepare for the above 7000 level courses are allowed if recommended by the student's Graduate Advisory Committee (for example BIOL 4123 Immunology, BIOL 4132 Eukaryotic Molecular Genetics, OCS 4038 Scientific Writing and Collaboration, BE 4335 Tissue Engineering)

The preparation of a thesis is an important element in the program leading to the master's degree. The master's thesis should demonstrate capacity for research, originality of thought, and facility in organizing materials. Final acceptance of the master's thesis rests with a student's graduate committee.

The thesis must be successfully defended in a final defense and examination. A request for the final examination must be submitted to the Graduate School by the student at least three weeks prior to the proposed examination date and by the current semester deadline, if the student is a candidate for a degree. The student should visit the Graduate School the semester before planned graduation for deadlines and procedures concerning requests for final examination. The examining committee, must have copies of the thesis at least two weeks prior to the final examination. Typically, the final examination is an oral examination following the thesis defense. The thesis defense takes the form of a seminar, open to attendance by any interested parties. Following the seminar, the graduate student and the examination committee will convene and discuss the thesis, asking questions of the graduate student.

# **Biomedical and Veterinary Medical Sciences-Veterinary Clinical Sciences, Ph.D.**

#### (PVMCS)

The Department of Veterinary Clinical Sciences offers a Ph.D. in Biomedical and Veterinary Medical Sciences with emphasis in clinical sciences. The graduate program of study and research will be directed and evaluated by the student's graduate committee. This committee will be composed of at least three members of the graduate faculty. Doctoral graduate students must complete a minimum of 60 credit hours of graduate courses, a comprehensive examination, final examination, and a dissertation.

#### The coursework, in conjunction with

research training, will provide the student with the skills needed for continuing research independent of the major professor. The coursework requirements are as follows:

- at least 24 hours of 7000 level or higher courses (VMED 8900 and VMED 9000 do not count toward this total)
- at least 6 hours of statistic courses from the following EXST 7003, EXST 7004, EXST 7005, PBS 7002, or PBS 7312

- at least 6 hours from the following VCS 7201-VCS 7215, CBS 7104, PBS 7431, CBS 7109, CBS 7628, ANSC 7051, or ANSC 7052
- at least 3 hours of VCS 7001 Seminar (maximum of 4 hours)
- at least 3 hours of VCS 7210 Journal Review (maximum of 4 hours)
- a maximum of 6 hours VCS 7003 Special Topics
- 2 hours of VMED 7004 Introduction to Research
- a minimum of 12 hours of research (VMED 8900, VMED 9000) with a maximum of 24 hours

4000 level courses that support general knowledge needed for research and to prepare for the above 7000 level courses are allowed if recommended by the student's Graduate Advisory Committee (for example BIOL 4123 Immunology, BIOL 4132 Eukaryotic Molecular Genetics, OCS 4038 Scientific Writing and Collaboration, BE 4335 Tissue Engineering)

Candidates for the PhD degree are required to pass a comprehensive examination. This examination occurs within 3 years of onset of program and after completion of the majority of the student's coursework. This examination may be oral, written or both, depending on the preference of the student's graduate committee. Students that successfully complete part of the comprehensive examination but not all of the examination may be allowed a single retake at the discretion of the student's graduate committee.

The preparation of a dissertation is an important element in the program leading to the doctoral degree. The dissertation should demonstrate capacity for research, originality of thought, and facility in organizing materials. Final acceptance of the dissertation rests with a student's graduate committee.

The dissertation must be successfully defended in a final defense and examination. A request for the final

examination must be submitted to the Graduate School by the student at least three weeks prior to the proposed examination date and by the current semester deadline, if the student is a candidate for a degree. The student should visit the Graduate School the semester before planned graduation for deadlines and procedures concerning requests for final examination. The examining committee, must have copies of the dissertation at least two weeks prior to the final examination. Typically, the final examination is an oral examination following the dissertation defense. The defense takes the form of a seminar, open to attendance by any interested parties. Following the seminar, the graduate student and the examination committee will convene and discuss the dissertation, asking questions to the graduate student.

#### **Teaching in the Healthcare Professions Graduate Certificate**

#### (CTHP)

The Certificate in Teaching in the Healthcare Professions Program is designed for veterinary and healthcare educators/professionals who seek additional preparation for educator roles in academia and health care organizations. The common core of course work includes work in curriculum development, instruction, student assessment, program evaluation, education leadership, and education scholarship. Students enrolled in the certificate courses will gain in-depth knowledge in the areas of organizational leadership, research methodology, curriculum development, instructional methods and learning theory, student performance assessment, program and faculty evaluation, and faculty development. Participants will also complete a capstone project, defined as a work of scholarship, which will allow application of knowledge and skills gained in coursework.

The program will be completed entirely online. This format allows professionals to pursue the certificate while keeping full-time jobs. Certificate in Teaching in the Healthcare Professions Program candidates are encouraged to use their home institution as a laboratory for the application of practical educational and leadership concepts and for development of their own scholarship.

For additional information please contact:

Annie J. Daniel, PhD

Director of Veterinary Instructional Design and Outcomes Assessment

Associate Professor of Veterinary Medical Education

School of Veterinary Medicine

225-578-0724

annied@lsu.edu

# **School of Veterinary Medicine**

# **School of Veterinary Medicine**

	1102 Veterinary Medicine Building
JOEL BAINES	TELEPHONE 225-578-9900
Dean	FAX 225-578-9916
	WEBSITE www.lsu.edu/vetmed
Department of Comparative Biomedical Sciences	2510 Veterinary Medicine Building
	TELEPHONE 225-578-9888
J. MICHAEL MATHIS	FAX 225-578-9895
Professor and Department Head	WEBSITE www.lsu.edu/vetmed/cbs
Department of Pathobiological Sciences	3315 Veterinary Medicine Building
	TELEPHONE 225-578-9684
JOHN HAWKE	FAX 225-578-9701
Professor and Interim Department Head	WEBSITE www.lsu.edu/vetmed/pbs
Department of Veterinary Clinical Sciences	2305 Veterinary Medicine Building
	TELEPHONE 225-578-9551
DALE PACCAMONTI	FAX 225-578-9559
Professor and Department Head	WEBSITE www.lsu.edu/vetmed/vcs
Office of Student and Academic Affairs	1213 Veterinary Medicine Building
JOSEPH TABOADA Associate Dean for Veterinary Education and Student Affairs; Professor of Veterinary Medicine	TELEPHONE 225-578-9537 FAX 225-578-9546 WEBSITE www.lsu.edu/vetmed/dvm_admissions

## **Programs**

- Veterinary Medicine, DVM
- Biomedical and Veterinary Medical Sciences-Comparative Biomedical Sciences, Ph.D.
- Biomedical and Veterinary Medical Sciences-Comparative Biomedical Sciences, M.S.
- Biomedical and Veterinary Medical Sciences-Pathobiological Sciences, Ph.D.
- Biomedical and Veterinary Medical Sciences-Pathobiological Sciences, M.S.
- Biomedical and Veterinary Medical Sciences-Veterinary Clinical Sciences, Ph.D.
- Biomedical and Veterinary Medical Sciences-Veterinary Clinical Sciences, M.S.

For information regarding the GRADUATE PROGRAM in COMPARATIVE BIOMEDICAL SCIENCES, click here.

For information regarding the GRADUATE PROGRAM in PATHOBIOLOGICAL SCIENCES, click here.

For information regarding the GRADUATE PROGRAM in VETERINARY CLINICAL SCIENCES, click here.

The LSU School of Veterinary Medicine admitted its first students to the professional curriculum during the 1973-74 academic year. The original entering class consisted of 36 students, all residents of Louisiana. Class size has increased significantly in recent years.

The school participates in the Southern Regional Education Board's (SREB) program for education in veterinary medicine. Training contracts negotiated through SREB provide a limited number of entering spaces for qualified candidates from Arkansas. A limited number of entering spaces is also allocated for highly qualified nonresident applicants under the school's special admission policy.

The AVMA Council on Education (COE) is the national accrediting agency for veterinary medical education in the United States. The AVMA COE assures that minimum standards in veterinary medical education are met by all AVMA-accredited colleges or schools of veterinary medicine, and that students enrolled in those colleges or schools receive an education that will prepare them for entry-level positions in the profession. The LSU program has met all essential requirements for an acceptable college or school as established by the AVMA COE. Full accreditation was granted in 1977 and reaffirmed in 1984, 1991, 1998, 2005, 2010, and 2012.

The School of Veterinary Medicine offers the professional degree, Doctor of Veterinary Medicine. Interdepartmental Master of Science and Doctor of Philosophy degree programs in biomedical and veterinary medical sciences are offered through the Graduate School.

### The Professional DVM Program in Veterinary Medicine

#### **Admission Requirements**

Students contemplating a career in veterinary medicine should acquire a sound foundation in the biological and physical sciences and a general knowledge of the arts and humanities in both high school and college. In addition, they should be motivated by a respect for animals, a sincere desire to serve the public, a propensity for the biological and medical sciences, and a deep interest in promotion of the health of animal and human populations. They must have a high aptitude for scientific study and must possess an excellent moral and ethical character.

Candidates for the Doctor of Veterinary Medicine degree must complete a minimum of six years of college education. This includes two or more years of pre-veterinary training and four years of professional training. The pre-veterinary requirements may be completed at LSU or any other accredited college or university offering courses of the quality and content of those prescribed in the *LSU General Catalog*. (See the section of this catalog titled "College of Agriculture" for the pre-veterinary medicine curriculum at LSU.)

The minimum requirement of 66 semester hours, including 20 hours of elective courses, may be completed in a minimum of two years. Successful completion of a pre-veterinary program does not guarantee admission to the school for professional training. Currently, there are more qualified applicants each year than there are spaces available in the entering class. Instruction in the four-year program is available only through the School of Veterinary Medicine at LSU.

Scholastic achievement is measured by performance in the prescribed pre-professional courses. A minimum grade point average of 3.0 ("A" = 4.00) in these courses is required for consideration for admission. A grade of less than "C" in a required course is unacceptable. Physical education activity courses may not be used as electives for meeting pre-professional requirements. Requirements are not waived in lieu of work experience.

#### **Admission Procedures**

The following information pertains only to the professional DVM program. Students interested in the MS and/or PhD programs should contact the LSU Graduate School for more information.

Admission to the School of Veterinary Medicine is granted only for the fall semester of each school year and only on a full-time basis. A prescribed number of student spaces is planned for each class and formal application is completed through the Veterinary Medical College Application Service (VMCAS); (http://www.aavmc.org/Students-Applicants-and-Advisors/Veterinary-Medical-College-Application-Service.aspx) Application material with all supporting credentials is required of each applicant by the VMCAS deadline. Students admitted and enrolled in the school must be capable of satisfactorily meeting all requirements of the curriculum in veterinary medicine. Eligible candidates are chosen to be interviewed by members of the Faculty Committee on Admissions and are carefully selected to ensure that they are properly motivated, competent to undertake the rigorous courses of professional study, and capable of meeting the demands of a professional career.

The Faculty Committee on Admissions is responsible for determining the application procedure and for selecting the entering class in the professional curriculum. All pre-professional requirements must be completed by the end of the spring semester before fall matriculation in the LSU School of Veterinary Medicine. Formal applications must be submitted to VMCAS no later than the VMCAS deadline. (Please check the LSU SVM Admission website for the specific deadline date.) Applications must be submitted through the Veterinary Medical Colleges Application Service (VMCAS). Please visit the LSU SVM's Admission Office's website for more details on the application process. Students reapplying must submit a completely new application for each application period, including the VMCAS application, all official transcripts, GRE scores, letters of recommendation, supplemental materials, etc.

Academic and non-academic qualifications are considered in the selection process. Selection for admission is based on the sum of the objective and holistic scores. The exact combination of each component to the total score may vary slightly from year to year and is determined by the admissions committee and the dean.

- An objective score that comprises approximately 65 percent of the final calculation is determined by the GPA in all required courses (approximately 29 percent), the GPA in the last 45-60 hours (approximately 18 percent), and the score on the GRE (approximately 18 percent).
- A subjective score comprises approximately 35 percent of the final calculation and is determined by a review of the applicant's folder (approximately 15 percent), an interview (for Louisiana and Arkansas residents only approximately 10 percent), and a holistic assessment by the admissions committee.

The objective evaluation is based on scholastic achievement and standardized test scores. Official transcripts of college course grades are examined to determine scholastic achievement. The total objective score is derived from the grade point average on required courses, the grade point average on the most recent 45-60 semester hours of course work, and the results of the GRE. New knowledge, especially in the sciences is accruing at a rapid rate, so if a student has completed the pre-professional requirements several years prior to application, records will be carefully scrutinized. It is advised that all required science courses should be completed within six calendar years immediately prior to application. Within the last six years, organic chemistry, at least one biology (preferably microbiology), and one general physics course must be completed.

In addition to the specific prerequisite courses, also factored into the Required Course GPA are any other animal science, physical science, or biological science courses that are taken and in which an "A" grade is earned. Social science, humanities, business, engineering, kinesiology, and any general education courses are NOT calculated into the required course GPA; however, these courses (with the exception of kinesiology courses) will still be used for the last 45 credit hours as seen below.

The holistic evaluation of applicants is based on non-academic qualifications considered relevant to the determination of the applicant's prospective performance in the veterinary medical curriculum and in the practice of veterinary medicine. Motivation, maturity, attitude, interest, and other characteristics will be evaluated for all qualified candidates, along with work experience, familiarity with animals, and reference information submitted in support of the application. These qualities are evaluated by two separate committees. The first committee reviews the supporting documents (autobiography, letters of recommendation, transcripts, work experience, and familiarity with animals). The second committee evaluates the individual through a personal interview. These appraisals result in an average subjective score which is added to the objective score to produce the total numerical evaluation of the candidate. Through this process, the professional judgment of several faculty members is included in arriving at a final decision of recommended students for the new class. Interviews are not granted to every Louisiana and Arkansas applicant, and only select out-of-state applicants will be invited to interview.

The final decision rests with the dean of the LSU School of Veterinary Medicine. The Faculty Committee on Admissions makes their recommendations to the dean who then finalizes the offers of admission.

Under exceptional circumstances, a limited number of applicants not selected under the above criteria may be admitted. Factors to be considered by the Faculty Committee on Admissions include undergraduate experience, GRE score, advanced academic work, work experience, or participation in special educational programs, as well as those special attributes possessed by the applicant that add to the cultural, educational, and/or geographical diversity of the entering class.

Please visit the School of Veterinary Medicine's Admission Office website at www.lsu.edu/vetmed/dvm\_admissions for more information on admission requirements, residency, classifications, minimum prerequisites, admissions procedures, statistics, important dates and deadlines, and much more.

#### Minimum Prerequisites for Admission (66 sem. hrs.)

Pre-veterinary students are encouraged to familiarize themselves with admission requirements for the professional program at the School of Veterinary Medicine. Students should seek knowledgeable pre-veterinary counselors and/or advice from the LSU School of Veterinary Medicine's Admission Office (vmadmissions@lsu.edu) when enrolled in pre-professional programs other than at LSU. A minimum of 66 total semester hours is required for consideration for admission into the professional DVM program. This must include the 46 semester credit hours of the courses listed below. More specific details regarding course descriptions can be at the School of Veterinary Medicine Admissions website.

Biological Science, twelve sem. hrs. • Must include at least eight sem. hrs. (two-semester course sequence with laboratory) in introductory zoology or general biology at a level appropriate for premedical students. Must also include at least four sem. hrs. (one-semester course with laboratory) in microbiology at a level appropriate for pre-medical students. LSU courses–BIOL 1201, BIOL 1208, BIOL 1202, BIOL 1209, and BIOL 2051.

General Chemistry, eight sem. hrs. • Must include laboratory and must be at a level for science or engineering majors. LSU courses– CHEM 1201, CHEM 1202, CHEM 1212.

Organic Chemistry, three sem. hrs. • Must cover aliphatic and aromatic compounds with an emphasis on the biological aspects of organic chemistry. LSU course–CHEM 2060

Biochemistry, three sem. hrs. • Must include three sem. hrs. of basic concepts and an introduction to the nature and physiological uses of natural substances. LSU course–BIOL 2083.

Mathematics, five sem. hrs. • Must be at the college algebra/trigonometry level or higher. LSU courses–MATH 1021, MATH 1022. Students who qualify for more advanced math may substitute MATH 1023 (5 sem. hrs.) for MATH 1021 and MATH 1022.

Physics, six sem. hrs. • Must be at a level for science majors and must include mechanics, heat, sound, light, electricity, magnetism, and topics in modern physics. LSU courses–PHYS 2001, PHYS 2002.

English Composition, six sem. hrs. • Must include six sem. hrs. of English composition. LSU courses-ENGL 1001 and/or ENGL 2000.

Speech Communications, three sem. hrs. • Must include three sem. hrs. of a public speaking or interpersonal communication course. LSU courses–CMST 2010, CMST 2060, or CMST 1061.

LSU students in the College of Agriculture should contact his/her undergraduate academic advisor to ensure that the speech communication course taken meets the student's degree curriculum requirements.

In selecting the remaining required courses for admission to the professional program, applicants should consider the following:

• The objective of the DVM program is to offer a well-rounded curriculum in veterinary medical education enabling the graduate to select from a wide range of professional opportunities. The selection of elective courses in the preprofessional curriculum should reflect the interests and objectives of the candidate. Potential applicants should plan their programs with the recognition that these elective courses provide the only formal opportunity in the college years to obtain a broad general education.

- Applicants who have completed advanced preparatory courses in high school are, in all probability, qualified to complete the prerequisites in four semesters. These students are encouraged to take higher level university courses when so permitted. Applicants who are inadequately prepared may find it advantageous to complete the pre-veterinary requirements over a longer period.
- Although the primary objective of the applicant may be to complete the pre-veterinary requirements, those who have not previously obtained a baccalaureate degree are encouraged to plan for alternative career possibilities though a degree-granting program that has similar course requirements. Several LSU curricula include all of the minimum mandatory requirements.

Many other curricula that do not specify all of the requirements allow them as electives. Because not all applicants will gain admission to the School of Veterinary Medicine on the first attempt, they should continue in degree programs while making themselves more competitive in subsequent years. Some students may elect to complete a baccalaureate degree in order to pursue graduate training during the first and second summers of the professional program.

Students who are enrolled at accredited institutions other than LSU must determine that courses taken conform in content and quality to descriptions contained in the latest issue of the *LSU General Catalog*. If there are any questions regarding equivalency of courses, please contact the School of Veterinary Medicine's Student Affairs Office by e-mail (svmadmissions@lsu.edu) or telephone (225-578-9537).

All requirements must be completed by the end of the spring semester of the year in which admission is sought. All application materials must be received by the appropriate deadlines. Application materials received after the given deadlines will not be accepted, and will result in the applicant being removed from consideration. Please visit the School of Veterinary Medicine's admissions website at www.lsu.edu/vetmed/dvm\_admissions for application deadlines.

Information concerning LSU's pre-veterinary medicine program is contained in this LSU General Catalog or may be obtained from the dean of the College of Agriculture.

### The Graduate Program in Veterinary Medicine

The School of Veterinary Medicine offers advanced studies in a variety of contemporary biomedical sciences leading to an MS or PhD degree (graduate academic programs) and specialized advanced professional training in one or more clinical specializes of veterinary medicine (graduate professional programs). Specific research training opportunities vary in each of the three departments and are summarized below by department. All aspects of the graduate academic program are in compliance with current regulations and requirements of the LSU Graduate School. The school's three departments have some additional distinct requirements. Graduate professional programs in some clinical sciences, pathology, and laboratory animal medicine may also require completion of a graduate degree.

#### **Graduate Academic Programs**

The graduate academic program in veterinary medical sciences offers both the MS and PhD degrees specializing in a variety of research areas, all requiring a thesis or dissertation.

All aspects of the graduate program in veterinary medical sciences (e.g., hours required, composition of graduate advisory committees, general and comprehensive final examinations, etc.) are in compliance with the current "General Graduate School Regulations" and "Requirements for Advanced Degrees."

#### **Areas of Specialization**

Graduate degrees (as indicated in parentheses) are offered by the School of Veterinary Medicine in its three departments. These include: the Department of Comparative Biomedical Sciences (MS, PhD), the Department of Pathobiological Sciences (MS, PhD), and the Department of Veterinary Clinical Sciences (MS, PhD).

Courses in the professional curriculum are designated as Veterinary Medicine (VMED) courses, rather than departmental courses, because of the integration of the disciplines. These courses, all at the 5000 level, are described in the School of Veterinary Medicine Bulletin. Prerequisite for enrollment in these courses is formal admission to the professional curriculum in the School of Veterinary Medicine. All courses must be taken in the proper sequence, as each is a prerequisite for the succeeding course. The following courses are utilized by all concentrations in the Veterinary Medical Sciences graduate program: VMED 7004, VMED 8000, VMED 8000, VMED 9000.

# **LSU Online**

# LSU Online

Alexandera "Sasha" Thackaberry	
Vice Provost	
Renée L.A. Renegar	
Assistant Director	
LSU Online	
2148 Pleasant Hall	
Phone: (833) 280-5634	
Website: www.lsu.edu/online	
Email: lsuonline@lsu.edu	

# **Academic Offerings**

LSU Online supports superior distance education programs that produce highly qualified graduates in accordance with LSU's vision and mission of collaborative and innovative teaching and research to transform the lives of our students and graduates so that they are able to lead and succeed in future endeavors. LSU offers fully online degree programs at the graduate and post-baccalaureate levels.

Information on degree offerings can be found on the LSU Online website.

# Admission

Those interested in applying for an online degree program must follow the same rules and procedures as students interested in studying in the on-campus program equivalents. Information on the application processes can be obtained from the Graduate School and the Office of Undergraduate Admissions.

For Graduate School Assistance:	For Post-Baccalaureate and Undergraduate Assistance:
Email: gradonline@lsu.edu	Email: ugonline@lsu.edu
Mail documents to: Graduate School West David Boyd Hall Baton Rouge, LA 70803	Mail documents to: LSU Undergraduate Online Programs 101 LSU Student Union Building PO Box 16138 Baton Rouge, LA 70803

Call: 225.578.2324

#### Availability

Students must reside in one of the following states in order to qualify for admission to an online degree program at LSU:

Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming. Please note, due to licensure requirements in some states, not all online programs are available to residents in every state. Questions regarding this issue can email lsuonline@lsu.edu.

International students may also apply within these guidelines: International applicants who are seeking admission to an online degree program through LSU do not qualify for an LSU I-20/DS-2019 Certificate of Eligibility. U.S. Immigration regulations stipulate that international students who are seeking or are maintaining F-1 or J-1 student status must have a "physical presence" in traditional, classroom courses. Therefore, international students on an F-1 or J-1 document listed with Louisiana State University cannot exclusively complete an online degree program through LSU while inside the United States in order to maintain/continue their status. For more information, e-mail isograd@lsu.edu.

#### 2019/2020 Academic and Registration Calendars

LSU Online follows a different academic and registration calendars than the equivalent on-campus programs. Terms in the LSU Online programs occur in 7-week modules. There are six module start dates in the academic year. (See LSU Online academic calendar)

All course scheduling is completed through student MyLSU account by accessing "Registration Services" on the MyLSU desktop. Online registration deadlines can be found on the online academic calendar.

LSU offers students the ability to produce enrollment verification certificates and other registration documents via the web. To use these services, simply access the "Student Services" selection on the myLSU desktop and select the "Enrollment Certificate" option.

#### **Financial Aid**

LSU's Office of Financial Aid is here to guide you through the process of applying for financial aid and planning the costs of your education. Additional information is available online for the Office of Financial Aid.

Graduate PLUS Loans. Specific information regarding this refund schedule is available through Financial Aid & Scholarships.

#### **Military/Veteran Students**

For an extensive overview relating to Louisiana State University's policies relating to veteran's benefits, visit the Veterans Affairs website.

#### **Fee Bill**

All fee bills are delivered electronically to student MyLSU accounts. Tuition and fees must be paid by the published deadlines. Payments may be made through MyLSU or by mailing payments. Tuition and fee schedules can be accessed on the Budget and Planning website.

[1] The LSU Board of Supervisors may modify tuition and/or fees at any time without advance notice.

### **Refund Schedule**

Note that the online module registration calendar has specific dates associated with refunds for students choosing to resign and/or drop classes.

Friday before the first class day, 4:30 p.m.	100% refund
Second day of class, 4:30 p.m.	90% refund
Fifth day of class, 4:30 p.m.	50% refund
After fifth class day	No refund

### Regulations

LSU Online students are governed by the same academic requirements and regulations as on-campus students.

#### **Student Classification**

- Full-Time Students
  - o LSU Online students will be considered full-time when enrolled for six hours of credit.
- Half-Time Students
  - o LSU Online students will be considered half-time when enrolled for three hours of credit.

### **Grade Requirements**

#### **Plus/Minus Grading System**

Effective Fall 2015, the university implemented the Plus/Minus Grading System.

- The definitions for letter grades when used in courses are presented below.
  - The letter grade A, including A+ and A-, denotes distinguished mastery of the course material.
  - 0 The letter grade B, including B+ and B-, denotes good mastery of the course material.
  - 0 The letter grade C, including C+ and C-, denotes acceptable mastery of the course material.
  - o The letter grade D, including D+ and D-, denotes minimally acceptable achievement.

- 0 The letter grade F denotes failure.
- References to specific letter grades in university regulations and requirements refer to the full letter grade range. For example, if a grade of C is required, a student must achieve a final grade in the C range (i.e. C+, C, or C-) or better.
- A grade of "**P**" (pass) denotes satisfactory completion (grade of "C" or better) of advanced-standing or proficiency examinations, pass-fail option courses, and certain other courses. A grade of "**NC**" (**no credit**) indicates that no credit is earned.

Grading scale—A student's GPA is determined by the ratio of quality points earned to semester hours attempted. Quality points are assigned to letter grades using the following scale:

GRADE	HOURS CARRIED	QUALITY POINTS
A+	1	4.3
A	1	4.0
A-	1	3.7
B+	1	3.3
В	1	3.0
В-	1	2.7
C+	1	2.3
С	1	2.0
C-	1	1.7
D+	1	1.3
D	1	1.0
D-	1	0.7
F	1	0.0

All courses taken for which the grades above are assigned, including repeated courses, are considered in calculating GPAs. Grades of "P," "W," "I," and "NC" are not used in computing the official GPA and, therefore, do not carry quality points.

Plus/Minus Grading and Regulations Applicable on a Course-by-Course Basis—All regulations applicable on a course-by-course basis and requiring a specific letter grade are interpreted to mean a specific letter grade range. For example, if a student must achieve a C or better in one course as a prerequisite for subsequent course, the student must achieve a final grade in the C range (i.e., C+, C or C-) or better.

### **Good Standing**

#### GRADUATE STUDENTS

Graduate students are considered to be in good standing, making satisfactory academic progress towards the degree, if they earn a 3.00 cumulative average on all graduate coursework taken within the University (all campuses) and a 3.00 module average on all coursework (undergraduate and graduate).

#### UNDERGRADUATE STUDENTS (including post-baccalaureate students)

Undergraduate students are in good standing if they are eligible to continue or to re-enroll at the university even if on scholastic probation or on scholastic warning status.

#### **Scholastic Probation and Suspension of Graduate Students**

A student whose cumulative LSU average is below 3.00 will be placed on probation, except that a student whose cumulative average is as low as 2.75 may be dropped from The Graduate School without having a probationary period. A student already on probation whose cumulative average is below 3.00 will be dropped from The Graduate School. Rules governing students admitted on probation are given in the "Graduate Admission" section in the LSU General Catalog. The grades recorded determine the student's academic status, even if the student changes to a different graduate degree program.

Online students who have been dropped from a graduate degree program and are ineligible to continue in The Graduate School may not reapply as online non-degree students.

## Scholastic Probation and Drop of Post-Baccalaureate and Undergraduate Students

#### University Scholastic Warning

At the end of an LSU Online module, students will be placed on University Scholastic Warning if their GPAs are one to nine quality points below a 2.00 on all work attempted or on all work attempted in the University (all campuses). A notation to that effect will be recorded on their transcripts. Students will remain on University Scholastic Warning until they bring their GPAs up to 2.00, or are placed on University Scholastic Probation.

#### **University Scholastic Probation**

At the end of an LSU Online module, students will be placed on University Scholastic Probation if their GPAs are 10 or more quality points below a 2.00 on all work attempted or on all work attempted in the University (all campuses). Students will remain on University Scholastic Probation until they have cumulative averages of 2.00 or higher on all college work attempted and on all work attempted in the University (all campuses).

Students who have been removed from University Scholastic Probation will be placed on probation again at the end of any LSU Online module in which their University or cumulative averages are less than 2.00.

#### **University Scholastic Drop**

Students on University Scholastic Probation will be dropped from the university at the end of any LSU Online module if their module average is less than 2.00, unless application of the Grade Exclusion Policy by undergraduates results in the students' University and cumulative GPAs recomputed to 2.00 or higher.

#### **Re-entry after Scholastic Drop**

LSU Online undergraduate and post-baccalaureate students dropped for the first time for academic reasons can be considered for readmission when they have been out of the University (all campuses) for two consecutive modules. LSU Online undergraduate and post-baccalaureate students dropped the second or subsequent time for academic reasons must remain out of the University (all campuses) for one calendar year.

In either instance, readmission may be delayed or denied at the discretion of the dean of the college in which the student desires to enroll. Students entering the university after University Scholastic Drop will be admitted on University Scholastic Probation.

#### **Incomplete Grades**

If a student is awarded an incomplete grade for an LSU Online course, the student has until the final day of class in the next module, whether the student registers for the next module or not, to complete the course.

#### **Time Limit for Graduate Students**

Programs for master's degrees must be completed within five years from entrance into a degree program. Credit for individual courses taken at LSU more than five years before the termination of a program may be revalidated by the student's graduate committee through an examination. This examination may be oral, written, or both oral and written, depending on the requirements of the department concerned. The documentation of such an examination must be signed by members of the committee, the department's graduate advisor, and reported to the Graduate School on the appropriate form before the request for the student's final examination will be approved. No more than 50 percent of the courses in a student's program may be revalidated and counted toward the degree requirements. However, some departments do not revalidate course work. Students should check with the department chair or graduate advisor to ensure revalidation is allowed.

#### **Break in Enrollment**

Students who do not enroll for a calendar year will be required to reapply for admission.

### **Standards of Conduct**

The university's guidelines and expectations for behavior and accountability procedures for students are outlined in the Code of Student Conduct. Policies and procedures governing student organizations, activities, and conduct may be accessed at www.lsu.edu/deanofstudents and www.lsu.edu/campuslife. Student Advocacy & Accountability has administrative responsibility for coordinating all university accountability procedures for students and student organizations. Students who are charged with alleged violations of the Code of Student Conduct are provided rights, including the right to a notice and a hearing. Additional details regarding standards of conduct may be found at: www.lsu.edu/saa. LSU's Commitment to Community is an additional university document which details the expectation to uphold the highest standards of performance in an academic and social environment.

### Graduation

Upon successful completion of all degree requirements, LSU Online students will have their degrees conferred at the end of the module in which all work was successfully completed. LSU conducts on-campus commencement exercises in May, August, and December. LSU Online students are invited to attend the commencement exercise immediately following the module in which degree requirements were successfully completed. For information regarding commencement, please access the Commencement site.

#### **GRADUATE STUDENTS**

Students must file for graduation in accordance with published LSU Graduate School processes and deadlines: see Steps to Graduation.

# **UNDERGRADUATE STUDENTS (including post-baccalaureate students)**

Undergraduates must inform their dean's office regarding their intention to graduate. The deadlines for contacting dean's offices regarding graduation are as follows:

The dean's offices will provide additional information about the procedure to check out for graduation and payment of the diploma fee.

## LSU Global: International Accelerator Program

# LSU Global: Undergraduate Accelerator Program

DR. HECTOR O. ZAPATA	TODD ELLWEIN	
Academic Director/LSU	Managing Director/LSU Global	
ANDRE CLOUATRE	MARINA PEREIRA	
Assistant Academic Director/LSU	Director of Admissions/LSU Global	
LANE LUNEAU	KATRINA SPILLANE	
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LSU GLOBAL OFFICE		
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TELEPHONE 225-578-7949		
WEBSITE global.lsu.edu		
EMAIL: admiss	sions@lsuglobal.com	
EMAL. autiliss	nons e isugioou.com	

The Louisiana State University Undergraduate Accelerator Program (UAP) is designed specifically for undergraduate international students who choose to join the LSU Global program. In addition to intensive English and academic learning pathways, this program provides enhanced acculturation student services. International students that meet all admission requirements for a Bachelors degree may still apply for direct admission to LSU, without going through the LSU Global program.

# **Accelerator Pathways**

The Undergraduate Accelerator Program (UAP) at LSU has three routes, or paths, for international, undergraduate students to complete the program. Each pathway begins at a different term in the program, and the entry point then determines a student's total number of semesters in the program. UAP students are placed into one of the following pathways based on English-language level and other academic qualifications.

Extended Accelerator

- IELTS 5.0 or TOEFL iBT 60 (PBT 497)
- Total IAP Semesters: 3

Academic Accelerator

- IELTS 5.5 or TOEFL iBT 68 (PBT 520)
- Total IAP Semesters: 2

Integrated Direct

- IELTS 6.5 or TOEFL iBT 79 (PBT 550)
- Total IAP Semesters: 2

## **Curricular Bands**

UAP courses are organized according to three curricular bands. Regardless of their pathway, UAP students take courses from all three of the following curricular bands, but the specific courses in each band may differ:

- Support: courses that introduce students to their new community
- English: courses that provide English-language instruction by language level
- General Education: LSU courses that provide foundational knowledge for later study.

### **Credit Hours**

After completing a UAP course, students may earn UAP credit only, or both UAP and LSU credit. Only LSU credits may be transferred to the university's degree programs.

- LSU Credit Hours: transferable credits that may be counted towards an LSU degree
- UAP Credit Hours: non-transferable credits that count towards the completion of the UAP program, but not towards an LSU degree.

#### LSU Global: Undergraduate Accelerator Program

#### Support Curricular Band

The Support curricular band honors the unique, first-year college experience of an international student. Elements of this curricular band include courses, co-curricular field experiences, and purposeful extra-curricular activities. The intent of this band is to aid students' personal development as expert learners, global professionals, and citizens.

#### **Orientation Week**

The Orientation Week is composed of several days of orientation and welcome activities. Students will receive essential academic and student services information, be introduced to their surroundings, and participate in related social activities.

*Prerequisites or Enrollment Requirements:* All students entering the program are required to attend orientation. *Accelerator Pathways:* Extended, Academic, International Direct

EDCI 1001 Introduction to College Study

The course will orient the student with the university, its surrounding area, and its embedded national cultural context. It provides students with study skills and interpersonal competencies for continued success.

*Prerequisites or Enrollment Requirements:* NONE *Accelerator Route:* Extended, Academic, International Direct

#### English Language

#### **English Language**

The English Language curricular band supports meaningful and rapid improvement of students' proficiency, regardless of their entry-point. Elements of this curricular band include English-language instruction in a variety of contexts: language-strategy and skill area acquisition, integrated content and applied context, as well as supplemental instruction labs to concurrent academic courses.

#### English for Academic Purposes (ELOP)

Students in the English for Academic Purposes course practice speaking, listening, reading, and writing in academic contexts. Special attention is paid to bibliographic practices and information systems.

*Prerequisites or Enrollment Requirements:* English-language placement exam results upon arrival. *Accelerator Route:* Extended

LSU Credit hours: 0/10

UAP Credit hours: 10/10

- ENGL 1000 English for Academic Success (3)
- Prerequisites or Enrollment Requirements: English for Academic Purposes or placement by department.
- ENGL 1004 English Composition (3)
- Prerequisites or Enrollment Requirements: ENGL 1000 or placement by department.
- ENGL 1005 English Composition (3)
- *Prerequisites or Enrollment Requirements:* ENGL 1004 or placement by department.

#### **General Education Courses**

The overall General Education curricular band enables students to gain authentic university coursework experience and transferable credits as they develop their language, academic, and cultural attributes. Elements of the curricular band are arranged into three main theme areas.

Each theme aligns across all terms of the program. These theme areas are Theme 1: Analysis and Interpretation; Theme 2: Communication and Communities; and Theme 3: Local and Global Worldviews.

#### Theme 1: Analysis and Interpretation

Mathematics

- MATH 1021 College Algebra (3) *Prerequisites or Enrollment Requirements:* Placement by department. Credit will not be given for both this course and MATH 1015 or MATH 1023. Hours of Lecture per Week: 1 Lab Hours per Week: 3
- MATH 1022 Plane Trigonometry (3) *Prerequisites or Enrollment Requirements:* MATH 1021 or placement by department. Credit will not be given for both this course and MATH 1015 or MATH 1023. Hours of Lecture per Week: 1 Lab Hours per Week: 3
- MATH 1029 Introduction to Contemporary Mathematics (3) *Prerequisites or Enrollment Requirements:* NONE.
- MATH 1431 Calculus with Business and Economic Applications (3)

*Prerequisites or Enrollment Requirements:* MATH 1021 or equivalent. Credit will be given for only one of the following: MATH 1431, MATH 1550, MATH 1551.

Hours of Lecture per Week: 3 Lab Hours per Week: 1

- MATH 1550 Analytic Geometry and Calculus I (5) *Prerequisites or Enrollment Requirements:* An appropriate ALEKS placement score. Credit will be given for only one of the following: MATH 1431, MATH 1550, or MATH 1551.
- MATH 1552 Analytic Geometry and Calculus II (4) *Prerequisites or Enrollment Requirements:* MATH 1550 or MATH 1551. Credit will not be given for both this course and MATH 1553 or MATH 1554.

#### Sciences

- CHEM 1201 General Chemistry I (3) *Prerequisites or Enrollment Requirements:* credit or registration in MATH 1022, MATH 1023, MATH 1431, MATH 1550 or MATH 1551.
- CHEM 1202 General Chemistry (3) *Prerequisites or Enrollment Requirements:* CHEM 1201 or CHEM 1421. Credit will not be given for both this course and CHEM 1422.
- CHEM 1212 General Chemistry Laboratory (2) *Prerequisites or Enrollment Requirements:* Credit or registration in CHEM 1002, CHEM 1202 or CHEM 1422. Credit will not be given for both this course and CHEM 1431. Students registering for laboratory courses in chemistry are charged a laboratory usage deposit on their fee bill. Lab Hours per Week: 6

#### Theme 2: Communication and Communities

#### Humanities

- SOCL 2010 Louisiana in a Global Context (3) *Prerequisites or Enrollment Requirements:* NONE.
- CMST 2060 Public Speaking (3) Prerequisites or Enrollment Requirements: NONE.
- MUS 1600 American Popular Music (3) Prerequisites or Enrollment Requirements: NONE.
- MUS 1751 Music Appreciation (3) Prerequisites or Enrollment Requirements: NONE.
- LA 1203 Views of the American Landscape (3) *Prerequisites or Enrollment Requirements:* NONE.

#### Theme 3: Local and Global Worldviews

#### Humanities

• SOCL 2010 Louisiana in a Global Context (3) *Prerequisites or Enrollment Requirements:* NONE.

#### Sciences

• ENVS 1126 Introduction to Environmental Sciences (3) *Prerequisites or Enrollment Requirements:* NONE; Credit will not be given for both this course and ENVS 1127.

### **International Programs**

ASSOCIATE VICE PROVOST	Hector Zapata
OFFICE	108 Hatcher Hall
TELEPHONE	225-578-8242
FAX	225-578-6806
E-MAIL	hzapata@lsu.edu
WEBSITE	http://www.lsu.edu/intlpro

The role of *International Programs (IP)* at LSU is to provide and facilitate global activities that lead to learning, discovery, diversity, and engagement in consistency with the LSU Strategic Plan 2025. Complementing Louisiana's rich history of global commerce, International Programs is the port of connectivity to a world that is becoming increasingly flatter and easier to navigate. We establish and maintain partnerships with international universities and institutions through which we develop opportunities for students, faculty and staff to achieve a higher level of global awareness, competency, collaboration, and engagement. Five IP units facilitate the mobility of students, faculty, and staff around the world. Academic Programs Abroad provide study abroad experiences for students; International Services and the International Cultural Center serve LSU's international students, scholars, and faculty; Administration, Development and Outreach establishes the legal framework that enables exchanges of students, faculty, research, and expertise worldwide. The English Language and Orientation Program provides English proficiency training for students seeking admission to LSU.

International Programs promotes internationalization activities through international student scholarships, the LSU Study Abroad Scholarships, the LSU Internationalization Grants for faculty, and a number of other activities that enhance cultural adeptness and global engagement.

Through its support of all aspects of international education, International Programs contribute to the formation of human capital that makes LSU students, faculty, and staff more globally competent and competitive by:

- Making internationalization an integral part of learning, discovery, diversity, and engagement activities;
- Promoting the involvement of all students in significant international education experiences;
- Creating and maintaining an inviting and stimulating environment for academic and cultural experiences for international students and scholars;
- Facilitating an increase in participation by faculty and professional staff in international activities;
- Assisting academic units in internationalizing their curriculum;
- Promoting and facilitating interdisciplinary collaborative research and scholarship; and
- Enhancing international awareness as part of an appropriate balance in student and faculty engagement.

# **Academic Programs Abroad**

DIRECTOR	Harald Leder
OFFICE	103 Hatcher Hall
TELEPHONE	225-578-6801

# FAX225-578-6806E-MAILstudyabroad@lsu.edu

WEBSITE <u>http://www.lsu.edu/intlpro/apa/</u>

Students participating in *Academic Programs Abroad* (APA) travel worldwide to study for a summer, semester, or academic year. Students earn credit toward LSU degrees and return to LSU to complete their degree. Study abroad is open to all majors.

Through study abroad, students are immersed in foreign languages and cultures, have access to course work unavailable on the home campus, develop personal independence and global awareness, and enjoy academic and travel opportunities that enrich their general education. Many students find that studying abroad gives them an advantage in the job market and in applying for graduate school. Others discover routes to international careers in business, government, law, the arts, and engineering.

Students select from a variety of options. Many join group programs led by LSU faculty, to locations in Europe, Australia, Latin America, Asia, and Africa. Others participate in exchange and junior year abroad programs, which place students directly in overseas universities where they study alongside natives of the host countries. Others participate in domestic exchanges to over 170 U. S. universities in places such as New York, California, and Hawaii. Some students join programs offered by other U. S. schools or enroll directly at a foreign university.

Summer and intersession programs are open to all students with a 2.5 grade point average or better, regardless of classification. International semester or year-long exchanges are open to students with a 2.75 grade point average or better. Domestic exchanges are open to students who have a 2.5 grade point average or better.

Students receive academic credit for study abroad. In LSU faculty-led programs, students receive regular credit in LSU courses, just as they would on campus. In exchange programs and direct-enrollment programs, students earn the credits at the host institution and transfer them to LSU. Prior approval of course selection is required of all students who desire credit for overseas course work. During the period students are away on exchange, they are concurrently enrolled at LSU. Only students who are enrolled at LSU the semester prior to the semester of study abroad are eligible for concurrent enrollment.

Students scheduled for full-time studies abroad may use TOPS and most LSU and federal financial aid for their programs. Other scholarship opportunities specifically for study abroad are also available.

The best time for students to begin thinking about study abroad is during the freshman year. At this time, students can decide which courses to take abroad and which courses they plan to complete at LSU. They can also prepare for any language or other skills necessary for the overseas experience.

Interested students are urged to contact Academic Programs Abroad, 103 Hatcher Hall, visit our website, email, or call 225-578-6801 for information and an application.

# **International Services**

DIRECTOR	Natalie Rigby
OFFICE	101 Hatcher Hall
TELEPHONE	225-578-3191
FAX	225-578-1413
E-MAIL	isograd@lsu.edu
WEBSITE	http://www.lsu.edu/intlpro/is/

*International Services* (IS) provides primarily immigration advisory services to international students regarding their educational, financial, immigration, and personal concerns. Similar services are available to international faculty, staff, and research scholars. International Services is responsible for providing the U.S. student visa documents of F and J nonimmigrant students based on financial and immigration eligibility after University admission. This office prepares documentation and processes electronic records necessary for F and J international students to achieve and/or maintain lawful nonimmigrant F and J student status in the U.S. as an LSU student. It provides orientation programs for all new international students and employees. IS is responsible for the University's federal regulation compliance with the Department of Homeland Security (DHS), U.S. Immigration, and other federal agencies.

All F and J nonimmigrant international students seeking permission to work on or off campus must receive approval from this office through U.S. federal regulations.

The IS assists with the coordination of the university's international student services and programs with community organizations, faculty, campus and student groups, and governmental and private agencies. At this office, international students may apply for very small, short-term personal emergency loans through the University valued at \$500 or less depending on availability.

All F and J visa status holders are automatically billed for the mandatory University International Student Service Charge (ISSC) and the LSU Student Health Insurance Plan each semester of registration.

# **International Cultural Center**

MANAGER	Maureen Hewitt
OFFICE	3365 Dalrymple Drive
TELEPHONE	225-342-3084
FAX	225-342-0864
WEBSITE	http://www.lsu.edu/intlpro/icc
E-MAIL	icc@lsu.edu

The *International Cultural Center* (ICC) is a cultural and activity center largely funded and governed by international students. Typical ICC programs include social events and excursions, workshops, weekly Yoga and Meditation sessions, music and dance events, live satellite television delivery from around the world, and theater productions. Rentals are also available for short-term and emergency overnight accommodations for newly arrived international students and other international guests on a first-come, first-served basis. The ICC also provides pickup services for new international students at the airport or bus station, as well as assistance when needed in finding housing and obtaining a social security number.

With its computer mini-lab and wireless connection throughout the building, the ICC offers ideal study space until closing time at 10:00 p.m., Monday through Friday.

The ICC is also an occasional venue for rental by the general LSU and Baton Rouge community for events related to the ICC's mission of enabling international students to have a truly multidimensional experience at LSU and to promote international understanding.

# **Administration, Development and Outreach**

ASSISTANT DIRECTOR

Robert Dufrene

OFFICE	102 Hatcher Hall
TELEPHONE	225-578-1104
FAX	225-578-1413
E-MAIL	rdufre2@lsu.edu
WEBSITE	http://www.lsu.edu/intlpro/

Administration, Development and Outreach promotes an international presence for our university through internationally oriented study, research, and projects on campus and abroad, thus enhancing LSU's excellence through comprehensive internationalization.

Administration, Development and Outreach seeks to bring diversity and global engagement not only to LSU, but also to the citizens of Louisiana, through the strategic marketing of International Programs. It works to enhance communication about international activities at LSU. It is charged with International Programs business related duties including accounting, financial analysis and management, day-to-day operations, sourcing external funding for scholarships and program activities, and promoting initiatives to increase the number of international students attending LSU, as well as the number of LSU students participating in study abroad programs. Moreover, it works to facilitate the globalization of the LSU curriculum.

Administration, Development and Outreach also helps establish international bilateral and multilateral agreements that serve as the vehicle for research, faculty, and student exchanges abroad. It aids in the establishment of strategic international partnerships; these partnerships involve not only student exchange and faculty research, but they also bring government support, funding support, and private sector collaboration. These agreements and strategic partnerships facilitate international engagement by LSU faculty and students, allowing faculty to use their expertise to take up global issues while granting students the opportunity to participate in international activities.

# **English Language and Orientation Program (ELOP)**

DIRECTOR	Margaret J Borland
OFFICE	102 Hatcher Hall
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E-MAIL	mjborla@lsu.edu

Since 1943, LSU ELOP has provided English language training and preparation for students seeking admission to LSU. Academic readiness curriculum helps students improve English and university-level study skills. LSU ELOP introduces students to life on campus prior to admission and offers opportunities to engage in Louisiana culture. The LSU ELOP faculty is skilled in cross-cultural communication and multi-national class delivery to prepare students for academic success in the university environment. Our students join us in improving international understanding among all cultures, as we work to make the world a safer and more peaceful place. We strongly believe that learning and working together is the key to a harmonious future. Thank you for your interest in joining us for English classes and more. Why do International Students choose LSU ELOP? ELOP offers courses in Grammar, Spoken English, Composition, and Reading as well as elective classes in TOEFL preparation and practice. It has five start dates per year: January, March, June, August, and October, and it is a low cost of living in Baton Rouge and competitive tuition fees. The ELOP provides guided assistance for LSU Undergraduate and Graduated admission for international student who meet LSU requirements. The TOEFL exam is administered at LSU with same-day test results. Campus housing (LSU dormitories) is available for full-time students. Rapid response to all inquiries and paperwork related to application. Successful LSU faculty and administrators started their English language training at the ELOP.

### **Continuing Education**

ALEXANDERA THACKABERRY Vice Provost for Digital & Continuing Education		
LISA GRAVES	LISA VERMA	
Senior Director	Director	
DONALD BEALE		
Director		
CONTINUING EDUCATION		
OFFICE OF THE VICE PROVOST: 2148 Pleasant Hall		
MAILING ADDRESS: 1225 Pleasant Hall		
TELEPHONE: 225-578-2500		
FAX: 225-578-4800		
WEBSITE: www.outreach.lsu.edu		

LSU Continuing Education serves thousands of registrants each year through a wide variety of credit and non-credit programs. Since 1924, Continuing Education has provided flexible and relevant educational programs to meet the needs of both traditional and non-traditional students, whether on the LSU campus or across the globe. Last year, participants in our programs came from most parishes in Louisiana, every state in the nation, and 59 countries. From a world-class Management & Leadership Institute to programs designed for lifelong learners of all ages, LSU Continuing Education works to support, promote, and enhance LSU's Strategic Plan 2025 through both face-to-face and distance delivery methods. All programs offered through Continuing Education for Colleges and Schools (SACS). Undergraduate courses are offered through distance learning for college credit. Many Professional Development courses award Continuing Education Units (CEUs). All courses are taught by LSU faculty or qualified subject matter experts.

To address the diverse needs of lifelong learners, Continuing Education programs focus on four main areas: Distance Learning Programs, Professional Development, Pre-College Programs, and Community Programs.

# **Distance Learning Programs**

DIRECTOR	Donald Beale
OFFICE	1225 Pleasant Hall
TELEPHONE	225-578-8300; 800-234-5046
FAX	225-578-3090
WEBSITE	www.outreach.lsu.edu
EMAIL	answers@outreach.lsu.edu

Through *Distance Learning Programs*, non-traditional learners can enroll in and earn credit for a wide range of LSU undergraduate courses, regardless of the learner's location. Distance Learning courses serve more than 4000 registrants annually from all over Louisiana, the U.S., and the world.

College-level distance learning courses are substantially the same in scope and content as those taught on campus, and are taught by members of the university faculty and qualified instructors. All courses are online, and no classroom attendance is required.

Enrollment in a distance learning course may be made at any time, and students do not have to seek admission to the university. These courses are of particular interest to college students who are unable to attend campus classes or who need the flexibility of self-paced enrollment. In addition, college-level courses are taken by high school seniors or graduates who want to earn college credit, as well as individuals working independently toward professional and academic goals.

# **Professional Development**

DIRECTOR	Lisa Verma
OFFICE	1225 Pleasant Hall
TELEPHONE	225-578-4316
FAX	225-578-6324
WEBSITE	www.outreach.lsu.edu
EMAIL	professional development @outreach.lsu.edu

*LSU Professional Development* includes non-credit programs offering open enrollment courses, certificates, and custom training designed to increase skills and knowledge of individuals working in business, industry, government, and professional organizations. Course areas include: business and management; computer and information technology, environmental and safety management; paralegal studies; and online courses.

Instructors include LSU faculty, industry experts, and practitioners who specialize in content areas and provide best practices and latest research. LSU Professional Development provides workforce development opportunities and training throughout the state of Louisiana.

# **Computer & Information Technology**

DIRECTOR	Kristy Anthony
OFFICE	1225 Pleasant Hall
TELEPHONE	225-578-3313
FAX	225-578-6324
WEBSITE	www.outreach.lsu.edu

*LSU Computer & Information Technology* provides non-credit training in computer operating systems, productivity software, programming languages, web development, SQL, and networking. Courses feature hands-on instruction in up-to-date computer labs. Customized and on-site training is available.

Expert instructors present an array of technical certification programs for professionals. Each brings an in-depth knowledge of the topic, excellent communication skills, and experience in the real world.

## **Management & Leadership Institute**

DIRECTOR

Lisa Verma

OFFICE	1225 Pleasant Hall
TELEPHONE	225-578-4316
FAX	225-578-6324
WEBSITE	www.outreach.lsu.edu

The *Management & Leadership Institute* features best practices and the latest research in management and supervisory training, backed by Continuing Education's history of more than fifty years of providing professional development in the areas of supervisory effectiveness and organizational leadership.

Recognizing that today's leaders must be able to manage individual employees as well as the overall business, these programs are a comprehensive, personal, and professional development experience covering a range of management competencies, including public speaking and finance. Customized and on-site training is available.

# **Paralegal Studies**

COORDINATOR	Andrea Ash
OFFICE	1199 Pleasant Hall
TELEPHONE	225-578-6760
FAX	225-578-6324
WEBSITE	http://www.outreach.lsu.edu/paralegal

The *LSU Paralegal Studies Program* grew out of Continuing Education's paralegal courses offered beginning in 1982. The program provides a path to a rewarding career in law through a series of non-credit courses that can be completed in as little as one year. The program is the only noncredit certificate program in Louisiana approved for paralegals by the American Bar Association. Most students complete their bachelor's degree before earning a paralegal certificate; however, students will be considered for admission if they have at least 45 hours of college credit, a 2.3 overall grade point average, and pass an entrance exam. Courses are offered at night to meet the needs of employed students, and feature small class size and instructors with real-world experience.

An online notary public preparatory course is also offered. This course prepares students to take the state notary public exam administered by the Secretary of State's office.

# **Community Programs**

DIRECTOR	Lisa Graves
OFFICE	1225 Pleasant Hall
TELEPHONE	225-578-2500
FAX	225-578-3090
WEBSITE	www.outreach.lsu.edu

LSU Community Programs includes non-credit programs focused on providing instruction in areas of special interest to individuals of all ages seeking personal and academic enrichment. Courses include pre-college courses and camps, leisure and

arts activities, humanities and literature, current events, and hands-on craft activities. The OLLI at LSU program is designed for mature adults and is membership-based. Leisure & Arts courses are open to all adults (and in some cases, middle and high school-aged students). Instructors include LSU faculty, retired faculty, and local artists and experts. Pre-College Programs provides academically enriching programs for students of all ages.

# Leisure & Arts Program

ASSISTANT DIRECTOR Rebecca L. Maxwell

OFFICE	1225 Pleasant Hall
TELEPHONE	225-578-2500
WEBSITE	http://www.outreach.lsu.edu/Leisure
EMAIL	Leisure@outreach.lsu.edu

The *Leisure & Arts Program* offers students, faculty, staff, and community members a variety of avenues to express themselves through a wide range of Leisure Courses. The goal of Leisure & Arts Program is to encourage participants to try something new, think out of the box, and engage in new forms of creative expression.

Leisure courses are noncredit, special interest courses. Courses vary in length and are typically scheduled on nights and weekends. Three terms are offered each year. Topics include language, cooking, arts and crafts, home and garden, and movement. Instruction is provided by LSU faculty, community experts, and local artisans. Members of the LSU community are eligible for a discount.

### **Osher Lifelong Learning Institute at LSU**

PROGRAM MANAGER	Tara Trimble
OFFICE	1225 Pleasant Hall
TELEPHONE	225-578-2500
WEBSITE	www.outreach.lsu.edu/OLLI
E-MAIL	olli@outreach.lsu.edu

The first and only Osher Lifelong Learning Institute in Louisiana, OLLI at LSU is a member-directed educational organization for persons 50 years and older. The program has over 1,100 members and last year conducted more than 245 courses.

OLLI at LSU is affiliated with The Bernard Osher Foundation and is part of a network of 120 institutes located on university and college campuses in nearly 300 cities and towns throughout the US, together comprising more than 151,000 members. The Osher Lifelong Learning Institute, or OLLI, offers non-credit educational programs specifically developed for adults 50 years and older; university connection and university support; robust volunteer leadership and sound organizational structure; and a diverse repertoire of intellectually stimulating courses.

Non-credit courses include such topics as Art History, Basic Yoga, Film Stories, Flicks & Food, French Conversation, Life Writing, Line Dancing, Passport to Italy, and Shakespeare, offered at convenient times and locations. Members attend courses as participants and also have opportunities to teach courses and serve on committees.

### **Pre-College Programs**

FAIR DIRECTOR	Lisa Graves
OFFICE	1225 Pleasant Hall
TELEPHONE	225-578-2500
FAX	225-578-3090
WEBSITE	www.outreach.lsu.edu/precollege

*Pre-college Programs* conducts numerous programs for students in kindergarten through high school. Offerings include major summer programs, such as Tiger Challenge, Tiger University, Residential Camps, and various year-round programs and courses such as ACT Prep, Science & Engineering Fairs, and Junior Science & Humanities Symposium. LSU also hosts residential courses for high-achieving students in the Duke Talent Identification Program (TIP), LeaderShip U, Architecture Camp, and a variety of college prep subject areas.

### **Science & Engineering Fairs**

FAIR DIRECTOR	Lisa Graves
OFFICE	2146 Pleasant Hall
TELEPHONE	225-578-1067
FAX	225-578-4800
WEBSITE	www.outreach.lsu.edu/lsef

The *Louisiana Science & Engineering Fair* and the *Region VII Science & Engineering Fair* are LSU-hosted educational programs that provide unique opportunities for public, private, and home school students in grades six through twelve. Through development and presentation of science and engineering projects, students enhance their abilities to make observations; ask questions regarding scientific phenomena; formulate ideas regarding the solution to a program; develop and carefully follow procedures related to finding an answer or solution to a problem; and effectively present their works to society.

# **Reserve Officers Training Corps**

#### EVAN T. SCAGGS, Lt Col, USAF

Professor of Aerospace Studies

105 Aerospace Studies Building

TELEPHONE 225-578-4407

FAX 225-578-4537

#### RIAN M. CARTER, MAJ, USA

Professor of Military Science

106 Military Science Building

TELEPHONE	225-578-2371
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#### DEAN T. RAWLS, CAPT, USN

Professor of Naval Science

NAVAL SCIENCE DEPARTMENT

McNair Hall, BLDG 18

Leon Netterville Drive

Baton Rouge, LA 70813

TELEPHONE

FAX 225-774-3604

225-771-2898

The Reserve Officers Training Corps program at LSU continues the military heritage that has been part of this institution since 1860.

The Army and Air Force ROTC programs are offered for men and women. Through a cross-enrollment agreement between LSU, Southern University, Southeastern University in Hammond, and Baton Rouge Community College, LSU students may also participate in the Naval ROTC at Southern University A&M College. LSU students in this program take their major courses at LSU and attend Naval ROTC courses at Southern University. Upon graduation, students are commissioned as Ensigns in the United States Navy or 2nd Lieutenants in the United States Marine Corps. Participation in these programs is optional. These programs develop selected college-educated students for positions of responsibility and leadership in the U.S. armed forces and offer students an educational experience not otherwise available at this university.

*Military Science* and *Aerospace Studies* are the titles of the Army and Air Force ROTC programs, respectively. Military science, aerospace studies, and naval science are recognized electives, and students may choose to pursue Army, Air Force, or Navy curricula. Prior to graduation, Army ROTC cadets must take courses in military history and pass a combat water survival test.

Army ROTC conducts two- and four-year programs and Air Force ROTC conducts three- and four- year programs. Successful completion of any of these programs will result in the student being offered a commission in the appropriate service. In addition, scholarship programs that cover university fees, books, laboratory fees, and related academic expenses along with a monthly subsistence allowance are available for selected students. Students enrolled in the Army ROTC program may compete for scholarships of two, three, three and one half, or four year duration. Students enrolled in Air Force ROTC may compete for scholarships of two, three, three and one half, or four year duration.

# Eligibility

In order to be considered for enrollment in an ROTC program, a student:

- must be full-time;
- must be a U.S. citizen or an applicant for naturalization;
- must have good moral character as required by military regulations;
- (for the advanced program) must be physically qualified to participate as prescribed by the Department of Defense;
- must be at least 14 years of age upon enrollment in the Air Force ROTC program, at least 17 years of age upon enrollment in the Army ROTC program, and at least 17 years of age upon enrollment in the Naval ROTC program;
- must be under 30 years of age at the time of commissioning (selected cases may be waived to age 35); and
- must take and sign the Oath of Allegiance.

# **Four-Year Program**

The four-year program is divided into two phases—the freshman/sophomore phase and the junior/senior phase. These two phases are officially called the *Basic and Advanced Course* by the Army; the Air Force designates them as the *General Military Course* and the *Professional Officer Course*. Students who have completed the freshman/sophomore phase may apply for the junior/senior phase. Selection for enrollment into the latter is made from those who have demonstrated that they possess the qualities necessary to qualify for a commission.

Veterans and students who had junior ROTC training while in high school may be granted placement credit for the freshman and sophomore phase and may enter the junior and senior phase if their application is approved by the Professor of Military Science. For Air Force ROTC, you must have one year of ROTC in order to compete for entry into the *Professional Officer Course*.

# **Military Obligation**

Except for ROTC scholarship cadets or contract cadets, LSU students do not incur a military obligation by enrolling in the Army ROTC Basic Course or the Air Force ROTC General Military Course.

# **Two-Year Program**

The two-year program extends the advantages of ROTC to junior-college graduates, transfer students, graduate students, and LSU students who did not enroll in the freshman/sophomore phase. Upon successful completion of a five-week summer training period, the student applying for the two-year program may enter the junior/senior phase. For Air Force ROTC, two-year programs are currently only available to Law students.

# **Army ROTC Summer Training**

Army ROTC Advanced Course cadets attend a five-week camp between the junior and senior years of college. At this camp, cadets receive training and evaluation in troop leadership, marksmanship, land navigation, small unit tactics, physical training, and adventure training. In addition to this camp, cadets have the opportunity to attend Airborne School, Air Assault School, Northern Warfare School, and Cadet Troop Leadership Training.

# **Air Force Field Training**

Air Force ROTC field training is offered during the summer months between your sophomore and junior years. It is located at Maxwell Air Force Base in Montgomery, Alabama. Students participate in a two week long field training program prior to enrollment in the Professional Officer Course. The major areas of study in the two-week field training program include drill and ceremonies, career orientation, survival training, expeditionary leadership activities, and physical training.

# **Army Simultaneous Membership Program (SMP)**

This program combines service in the Army National Guard or U.S. Army Reserve with enrollment in the Army ROTC program. It is open to eligible Guardsmen and Reservists who have attained sophomore academic standing. ROTC cadets also may enter this program after entering the Advanced Course. SMP participants will attend ROTC instruction and train with their military unit one weekend per month and two weeks in summer.

SMP participants will receive the ROTC subsistence allowance, plus the equivalent of a sergeant's pay for the monthly drill attendance and two weeks annual training. They will also receive the tuition exemption extended to all Louisiana residents in the Louisiana Army National Guard who maintain a 2.00 GPA. At the end of the Advanced ROTC program, these students will apply for commissions in the Active Army, Army National Guard, or the Army Reserve.

# **Naval Reserve Officers Training Corps**

Through a cross-enrollment agreement between LSU and Southern University, LSU students are eligible to enroll as midshipmen in the Naval Reserve Officers Training Corps (NROTC) and earn a commission in the U.S. Navy or Marine Corps. Students are eligible to complete a four-, three-, or two-year program. There is no additional cost to full-time LSU students to cross-enroll in the NROTC program. Students incur no obligation while participating in their first year. Full tuition scholarships and monthly stipends are available to college students enrolled in the program who demonstrate satisfactory academic performance and aptitude for commissioned service.

College program midshipmen are required to complete two semesters of mathematics courses (college algebra or above) and two semesters of a physical science. Scholarship midshipmen are required to complete two semesters of calculus (MATH 1550 and MATH 1552) and two semesters of calculus-based physics (PHYS 2110 and either PHYS 2112 or PHYS 2113). All midshipmen are required to take Naval Science courses at Southern University.

Naval ROTC offers a wide range of career opportunities in the Navy including naval aviation; submarine warfare, surface, and special warfare. Marine options are eligible to commission into combat arms, aviation, or combat service support branches.

Information on the Naval Science curriculum and a listing of Naval Science courses may be found in the Southern University catalog. Additional details may be obtained from the Professor of Naval Science/Commanding Officer, NROTC Unit, Southern University, P. O. Box 9214, Baton Rouge, Louisiana 70813; 225-771-2898; FAX 225-774-3604.

# LSU–Southern University Cooperative Programs

LSU and Southern University have conducted cooperative programs for a number of years. A student exchange program began in 1970, and exchange of faculty and cooperation in research have also occurred. In recent years, the number and extent of cooperative efforts between the two institutions have greatly increased.

# **Student Exchange**

LSU and SU students may take courses at the other institution under an expanded and simplified cross-registration program between the two universities. This program enables students to take courses not available at the institution where they matriculate. Both full-time and part-time students are eligible to participate. Full-time students pay no additional fees; part-time students pay fees based on the total number of hours for which they are registered. Cross-registration tuition exemptions do not apply to Continuing Education courses, or to the special fees attached to some courses.

Work taken at Southern University is recorded as transfer credit, as is all coursework taken outside the LSU System.

Interested students can obtain information from the Office of the University Registrar at LSU, the Registrar's Office at SU, and the offices of academic deans at both institutions.

# **Library Privileges**

Participants in the faculty and student exchange are allowed the same library privileges granted to members of the faculty and student body at the home institution. Students and faculty not participating in these exchanges also have access to the library at the other institution.

# **Academic Programs**

### **Chemistry and Chemical Engineering**

This program enables a student to earn a Bachelor of Science degree with a major in chemistry from Southern University and a Bachelor of Science in Chemical Engineering degree from LSU within a period of approximately five years. At least three-fourths of the hours required for the Southern University bachelor's degree must be earned at Southern University. The student may then be admitted to LSU to complete requirements for the Bachelor of Science in Chemical Engineering degree. Such students qualify for all benefits of the student exchange program.

### **Environmental Sciences**

The Master of Science degree in environmental sciences, a cooperative, multi-disciplinary program between LSU and SU, requires a minimum of 30 semester hours of coursework and six hours of thesis research. Four options are available: environmental toxicology and environmental planning and management offered at LSU, and environmental biology and environmental chemistry offered at SU. A graduate student at either institution may register for any of the four options. Four core courses are common to all options and must be taken by all students. Different areas of concentration permit the design of individual and specialized job-oriented programs.

### **Mechanical and Petroleum Engineering**

SU students enrolled in the mechanical engineering curriculum may elect a petroleum engineering option. Such students take six credit hours of specified chemistry courses at SU and twelve hours of specified petroleum engineering courses at LSU.

### **Naval Science**

Through a cross-enrollment agreement between LSU and SU, LSU students are eligible to enroll in the SU Naval Reserve Officers Training Corps leading to a commission in the U.S. Navy or Marine Corps. Naval ROTC is open to all students, and all naval science courses are taught on the SU campus. For additional information, see the "Reserve Officers Training Corps" section of this catalog.

# **Alumni Relations & Philanthropic Support**

Private support of Louisiana State University is led by a consortium of three independent foundations, each with its own governing board, staff, and unique mission. In addition, many academic units of the university have volunteer development councils and "friends" groups who focus on the special interests of the units.

# LSU Alumni Association

CLIFF VANNOY, President & CEC	)
Lod Cook Alumni Center	
3838 West Lakeshore Drive	
TELEPHONE	225-578-3838 or 1-888-RINGLSU
FAX	225-578-3816
WEBSITE	www.lsualumni.org

Since its establishment in 1905, the mission of the *LSU Alumni Association* (LSUAA) has been to protect, promote, and foster the welfare of LSU and to create and nurture mutually beneficial relationships between the university and its alumni and former students. The association, using the talents and resources of alumni, former students, future alumni, and friends of LSU, supports the university in pursuit of excellence in its mission of teaching, research, and public service.

The LSU Alumni Association, headquartered in the Lod Cook Alumni Center, is a nonprofit organization whose members are graduates, former students, and friends of LSU. Active membership may be obtained through an annual contribution of \$50 or more to the Alumni Fund. Membership benefits include a subscription to *LSU Alumni Magazine* and discounts at the Shelton Gift Shop, The Cook Hotel, car rentals and various national hotel chains. Members may join the Campus Federal Credit Union, and receive preferred banking offers from Bank of America and discounted insurance rates from Liberty Mutual.

Gifts generated through the Alumni Fund support the operation of the association's programs of scholastic support such as the prestigious Alumni Professorships, departmental professorships, Rising Faculty Research Awards, Teaching Assistant Awards, and Non-Tenured Faculty Awards for faculty and President's Alumni Scholarships, Global Leaders Scholarships, Flagship Scholarships, and International Student Scholarships for LSU's best and brightest future alumni.

Awards for outstanding individual alumni achievement, service, and extraordinary philanthropy include induction into the LSU Hall of Distinction; LSU Alumnus of the Year, the university's highest alumni honor; and Young Alumnus of the Year.

The association is committed to engagement, collaboration, and service for alumni, future alumni, faculty and staff, and LSU retirees. The Alumni Tiger Band Reunion, Hall of Distinction Gala, Scholars Banquet, Young Alumni Happy Hours, Chapter Leadership Summit, and LSU Retired Faculty/Staff gatherings bring alumni back to campus each year. Future alumni engagement is realized through partnerships with various university offices to sponsor dozens of activities, such as LSU On the Geaux, Bengal Bound, STRIPES, Grad Fair, LSU Ring Ceremony, Speakers: The Series, and LSU Collegiate Club. Faculty and staff are involved each semester through Partners in Progress with the University Executive Council, "Come Home, Alumni," with the Baton Rouge Area Chamber, "Come Home, Louisiana" with Louisiana Economic Development, and the Alumni Engagement Forum with the Staff Development Council.

With more than 130 alumni chapters around the world, LSU Tiger Nation is truly a global community. Chapters contribute thousands of dollars annual in restricted and unrestricted gifts to support the university's programs of academic excellence through the association.

Tiger Advocates, created and sponsored by the LSU Alumni Association, communicates LSU's goals to Louisiana legislators. As a collective voice for LSU, it helps ensure the university operates at its optimum level as a top-ranked university that educates Louisiana's future leaders, drives diverse economic development, produces scientific research, and serves the people of the state.

The LSU Alumni Association owns and operates The Cook Hotel – which is open to the public -- located directly behind the Lod Cook Alumni Center. The LSU-themed boutique hotel was remodeled in 2017. Reservations may be made online at www.thecookhotel.com or by calling 866-610-2665. The John and Rose Ann Shelton Gift Shop in the hotel offers the best in LSU merchandise and apparel, which can be viewed and purchased via the website at giftshop.lsualumni.org. For more information, contact the gift shop at 225-383-0241.

The Lod Cook Alumni Center and the adjacent Jack and Priscilla Andonie Museum (also known as the Andonie Sports Museum) offer meeting space for conferences, seminars, workshops, weddings, receptions, lectures, and banquets. Catering is provided by Unique Cuisine Catering, the association's exclusive caterer. For conference or event bookings, call 225-578-3829. Individual or group hotel room reservations may be placed by calling toll-free 866-610-2665.

The LSU Alumni Association, organized along both academic and geographic lines, offers membership in alumni chapters and academic affiliate chapters nationwide. The organization is governed by its Global Board of Directors, which formulates and administers policy. Additional information concerning membership in the LSU Alumni Association, its subsidiaries, or programs may be obtained by calling 888-RINGLSU or 225-578-3838 or at www.lsualumni.org.

# **LSU Foundation**

BRYAN BENCHOFF, President & CEO and LSU Vice President of Institutional Advancement

LSU Foundation	
3796 Nicholson Drive	
TELEPHONE	225-578-3811 or 1-800-452-7928
FAX	225-578-0530
WEBSITE	www.lsufoundation.org
E-MAIL	contact@lsufoundation.org

The LSU Foundation cultivates and invests in philanthropic partnerships to advance LSU's academic priorities. The LSU Foundation's vision is to catalyze transformational philanthropic support for LSU.

The LSU Foundation is a nonprofit, private foundation and manages most of the endowed funds and other assets donated by private individuals, corporations, and organizations for the benefit of the university. The Foundation invests the funds for the benefit of specific, donor-directed purposes in the various colleges, schools, and departments of the university.

Gifts have provided many enhancements that would not have been available otherwise, including endowed chairs and professorships, distinguished lecture series, endowed scholarships, endowed fellowships, capital projects, library resources, and awards programs for faculty, staff, and student achievement. The Foundation is the authorized agency for management of the matching grants for chair, professorship, and scholarship endowments provided by the Louisiana Board of Regents Support Fund.

Gifts may be designated by the donor for the highest priority needs of the university or a department or may be restricted to specific uses. Endowments may be named by the donor. Gifts may also be included in the estate plans of individuals, using wills, trusts, insurance policies, and other planning methods. Gifts to the LSU Foundation are tax-deductible to the extent allowed by law.

Visit www.lsufoundation.org to learn more about supporting LSU through philanthropic giving.

# **Tiger Athletic Foundation**

RICHARD B. PERRY, President and CEO

Maravich Assembly Center

TELEPHONE	225-578-4823 or 800-644-4823

FAX 225-578-0184

WEBSITE www.lsutaf.org

Tiger Athletic Foundation (TAF) is a private, nonprofit corporation. TAF's mission is "to assist Louisiana State University in building and maintaining a superior athletic program by providing private financial support for programs and facilities that ensure LSU student-athletes the opportunity to win in the classroom, in competition, and in life."

Among TAF's many accomplishments are over \$400 million in construction and improvement of athletic facilities including over \$270 million for college football's greatest venue, Tiger Stadium. Other facility projects include the University Club Golf Course and Practice Facility, Cox Academic Center for Student-Athletes, Mike the Tiger's Habitat, the Alex Box Baseball Stadium Suites, the Gymnastics Training Facility, and the Tennis Complex. TAF's primary mission in supporting LSU Athletics is to ensure that each student-athlete has the opportunity to be a student first, and in doing so obtain an education that will ensure their success in life. To accomplish this goal, TAF has created a non-endowed annual scholarship fund as well as two endowed scholarship programs so that all tiger fans – regardless of means – have the opportunity to play a part in ensuring that every current and future student-athlete has the opportunity to earn an LSU degree. TAF has also provided in excess of \$3.5 million in academic scholarships and teaching awards to the University. TAF members are dedicated to supporting LSU, LSU Athletics, and LSU student-athletes.

# Administration

LSU, the flagship institution in the state, reports to the Board of Supervisors of Louisiana State University and Agricultural and Mechanical College. The Board of Supervisors is established by Article 8, Section 7, of the Louisiana Constitution and is granted authority and responsibility to supervise and manage the institutions, statewide agricultural programs, and other programs administered through its system.

The university is administered by the Office of the President, which also oversees seven other institutions and the Health Care Services Division located throughout the state.

A listing of websites for the Board of Supervisors and LSU administrative offices is available below.

Click here to view the complete organizational chart for the university.

# **Board Of Supervisors**

http://lsu.edu/bos/index.php

# LSU Administrative Offices:

# **Office of the President**

http://www.lsu.edu/president/index.php

### **Office of Academic Affairs**

www.lsu.edu/academicaffairs

### **Division of Strategic Communications**

http://www.lsu.edu/stratcomm/

### **Enrollment Management**

www.lsu.edu/wp/admissions/

### **Finance & Administrative Services**

www.fas.lsu.edu

### **Research & Economic Development**

www.research.lsu.edu

# **Strategic Initiatives**

http://osi.lsu.edu

### **Division of Student Affairs**

http://www.lsu.edu/studentaffairs/index.php

# Faculty

The *faculty* of the university is defined as full-time members of the academic staff having the rank of instructor or higher (or equivalent ranks).

# **Distinguished Professorships**

### **Boyd Professors**

Faculty members who are designated as Boyd Professors have attained both national and international distinction for outstanding teaching, research, or other creative achievement. The Boyd Professorship is the *highest professorial rank* awarded by the university.

### **Alumni Professors**

Selection as an Alumni Professor is based on reputation for excellence in instruction, especially in undergraduate teaching; record of active and continuing interest and participation in areas of professor-student relations; dedication to an academic field; and outstanding professional relationships with other faculty and staff members.

Please see the Office of Academic Affairs website for a complete and up-to-date list of professorships.

# **Graduate Faculty**

The LSU Board of Supervisors requires the university to maintain a graduate faculty comprised of members of the teaching, research, and extension faculties who have been so designated by the President, upon the recommendation of the Graduate Council acting upon appropriate nominations. LSU's Graduate Faculty enables the university to maintain its accreditation through the Southern Association of Colleges and Schools (SACS) while furthering the university's national flagship agenda to increase the number and quality of graduate students and programs.

As described below, faculty members can qualify, depending on their qualifications, for the following types of graduate faculty membership: associate, full, research affiliate, or professional affiliate.

The academic deans are responsible for Graduate Faculty appointments for tenured and tenure-track faculty in their programs. The deans may elect to involve an associate dean or a college committee in the review process but the dean retains responsibility for the appointment of graduate faculty in their colleges. The Graduate School dean with the involvement of the Graduate Council maintains and periodically reviews records of graduate faculty status.

The academic deans approve graduate faculty status within hiring, promotion and/or tenure decisions, and in annual reviews (see items 1, 2, & 3). They continue to recommend three-year appointments for professional and research affiliates (see item 4) and recommend administrative approvals for non-graduate faculty (see item 5).

Graduate Faculty Status is determined and evaluated in the following situations.

 INITIAL APPOINTMENT – With initial appointment at LSU, Graduate Faculty (GF) status (Associate, Member, Research Affiliate or Professional Affiliate) and term will be noted on the appointment form. The Graduate School (GS) working with HRM will document these GF appointments. For tenured and tenure-track appointments the academic dean's approval of GF status on the appointment form is required. Assistant professors are appointed as associate members for six year terms.

- AT PROMOTION AND/OR TENURE REVIEW The promotion and/or tenure package will include a
  recommendation for GF status to be effective the same date as the proposed action. GS working with HRM will
  document the outcome of the review. Graduate Council Subcommittee review is continued for tenure and promotion as
  one part of the Provost's Advisory Committee review.
- 3. ANNUAL REVIEW All faculty participate in an annual performance evaluation. In the annual evaluation, the department chair will consider whether the graduate faculty member has demonstrated a current and sustained record of scholarly or creative activities consistent with the standards for GF status. Based on the evaluation, the department chair will recommend to the dean (a) continued appointment to GF; (b) conditional continued appointment to GF with recommendations for improvement in teaching and/or research; (c) change/removal of GF status. If the chair recommends conditional continued appointment or change/removal of GF status, the faculty member must submit a current CV to the dean. The dean will make the final determination of the GF status. Changes in GF status should be documented with a justification given. A review of the GF status of deans, vice presidents, and others reporting directly to the provost is included in the individual's annual review by the provost and any change in the GF status is reported to the graduate dean.
- 4. TERM OR OFF-CAMPUS APPOINTMENTS Faculty not on tenure track or not appointed on the LSU A&M campus should include a GF status evaluation in annual reviews. These appointments usually involve research affiliate or professional affiliate status, which will continue as three-year term appointments. New appointments and reappointments should be reviewed and reported to the GS upon recommendation by the academic dean. The Graduate Council will make a recommendation regarding GF status to the graduate dean who will make the final approval.
- 5. ADMINISTRATIVE APPROVALS All other GF appointments are handled via administrative approvals by chairs with the academic college dean's recommendation using an administrative approval form with CV. Administrative appointments should be sent forward to the GS upon recommendation by the academic dean for approval by the GS dean.

The faculty member may appeal the decision regarding his/her GF status to the Graduate Council. The appeal must include the justification for the status change or conditional continuation from the academic dean. The faculty member may choose to provide a defense of his/her record in addition to the CV. The Graduate Council will make a recommendation to the Vice President for Research and Economic Development who will make the final decision regarding the individual's GF status.

# **Types of Membership**

### Associate Member (A)

Privileges and Responsibilities

- Engage in all graduate education activities.
- Chair a thesis or dissertation committee.

Terms and Criteria

- Newly appointed tenure-track assistant professors in units offering work for graduate credit are normally appointed to an associate member six-year term, subject to annual review.
- Faculty members with at least seven years in rank as associate professor or full professor who do not maintain full membership may be eligible for a renewable, three-year associate member term in units offering work for graduate credit.
- Associate members of the graduate faculty must possess the highest degree appropriate to the field or unquestionable evidence of comparable achievement in the field.
- To maintain graduate faculty status associate members must demonstrate a current and sustained record of scholarly or creative activities indicated by publications in recognized journals in the field, books, and exhibitions or performances.

### Full Member (M)

#### Privileges and Responsibilities

- Determine policies of The Graduate School.
- Engage in all graduate education activities.
- Nominate faculty for membership on the graduate faculty.
- Chair a thesis or dissertation committee.

#### Terms and Criteria

- Newly appointed associate professors with tenure or tenure-track in units offering work for graduate credit are normally appointed as full members, subject to annual review.
- Newly appointed full professors with tenure or tenure track in units offering work for graduate credit are normally appointed to as full members, subject to periodic review.
- Full members of the graduate faculty must possess the highest degree appropriate to the field or unquestionable evidence of comparable achievement in the field.
- To maintain graduate faculty status full members must demonstrate a current and sustained record of scholarly or creative activities indicated by publications in recognized journals in the field, books, and exhibitions or performances.

### **Research Affiliate (F)**

#### Privileges and Responsibilities

- May serve as a member of thesis and dissertation committees but may not chair except by permission of the college dean and dean of The Graduate School.
- May engage in instructional activities at the master's and doctoral level.

#### Terms and Criteria

- Individuals nominated for research affiliate may be appointed to a renewable, three-year term.
- Research affiliate membership is available to individuals whose appointments reside in units not offering work for graduate credit or whose appointments are not tenure-track.
- Research affiliate members must possess the highest degree appropriate to the field or unquestionable evidence of comparable achievement in the field.
- To maintain graduate faculty status research affiliate members must demonstrate a current and sustained record of scholarly or creative activities indicated by publications in recognized journals in the field, books, and exhibitions or performances.

### **Professional Affiliate (P)**

#### Privileges and Responsibilities

- May engage in instructional activities at the master's level.
- May not engage in instructional activities at the doctoral level except by permission of the college dean and dean of The Graduate School.
- May serve as a member of thesis committees but may not normally chair except by permission of the college dean and dean of The Graduate School.

Terms and Criteria

• Individuals nominated for professional affiliate by units offering work for graduate credit may be appointed to a renewable, three-year term based on evidence of expertise or knowledge that is directly relevant and applicable to the professional program in which the individuals will be teaching.

- Expertise is defined in terms of recent activities recognized by the focal area as indicative of excellence. Appropriate indicators may include but are not limited to: terminal degrees in focal or relevant areas; professional certification; licensure, diplomas, or record of professional practice; and demonstrated professional excellence through performances, exhibitions, presentations, professional publications, or national awards.
- Normally, a person who is eligible for full or associate graduate faculty status is ineligible for professional affiliate status.
- Individuals whose professional activities are a function of their LSU employment are normally ineligible for professional affiliate status.

### **Emeritus**

A faculty member who holds full membership on the graduate faculty may be named as graduate faculty emeritus upon retirement provided that the faculty member has been approved for emeritus status through the university per PM69. Emeritus graduate faculty status allows these faculty to continue to work with graduate students on master's and doctoral committees as chairs and members.

# **Review of Nominations**

For individuals who are not appointed to tenure-track or tenured positions, units may nominate them for the appropriate level of membership. When it is time for a faculty member to be reviewed for graduate faculty status, The Graduate School will notify the unit. Graduate Faculty nomination forms may be obtained online from The Graduate School.

The dean of The Graduate School, or his/her representative, will review the Graduate Faculty Nomination and current vita to see that the nominee meets the requirements for appointment to the graduate faculty. The dean will appoint a committee comprised of the dean and three members of the Graduate Council to review the nomination. These four persons will independently review the nomination and arrive at their determinations as to the level of membership the faculty member should be accorded. Their votes will be recorded and tallied. If the majority of the votes agree with the nomination made by the unit, the nomination then goes to the entire Graduate Council for final review and vote.

If less than a majority agree with the unit's nomination, the dean will call the committee together to review the nomination. Each member of the committee then has an opportunity to discuss the nomination and change his/her vote. If the majority then agrees with the unit's nomination, the nomination goes to the entire Graduate Council for review and vote.

If there is not a majority of votes that support the unit's nomination, the dean will contact the chair to apprise him/her of the situation and determine if there is any additional information that can be supplied to support the nomination. The chair may agree with the committee's decision, in which case the nomination goes to the entire Graduate Council for review and vote. If the chair wishes to appeal the preliminary decision of the committee, additional materials may be submitted. If additional information is to be submitted, the chair should normally submit it to the Graduate School within two weeks. The materials are placed with the original nomination form and vita and each committee member independently reviews them once again as if it was a new nomination. The results of this second review are then submitted to the entire Graduate Council for review and vote.

At any time, units may submit a new nomination for a faculty member. Moreover, an individual faculty member may submit an appropriately prepared nomination at any time.

### **Evaluation of Administrators**

The following is copied from a memo by Dean Hargrave to all departments on November 7, 1978 and is the procedure that is still followed by the Graduate Council today.

With respect to the extent to which persons with administrative responsibilities must satisfy requirement for "current and sustained creative activities related to programs of graduate education as evidenced, by publications in recognized journals in the field, ...." The Graduate Council, in 1978, passed a resolution on this question:

"For department chairmen, deans, associate deans, and other persons holding administrative positions, the publication productivity may be less than that expected of other members of the department. At the same time, however, some "current and sustained activity" should be in evidence. Graduate Faculty membership should reflect a working relationship to the graduate program as well as the proper qualifications for that relationship."

### **Administrative Approval to Teach Graduate Courses**

The following is copied from a memo by Dean Hargrave to all departments on November 7, 1978 and is the procedure that is still followed by the Graduate Council today.

The Graduate Council has recommended that the Dean of The Graduate School grant administrative approval to teach 4000-level courses for graduate credit to faculty who do not meet the scholarship requirement for Associate Member or Member of the Graduate Faculty but who have the highest degree appropriate to the field and hold the rank of Assistant Professor or higher. It is best to submit that member for Administrative Approval rather than as Associate Member or Member.

Administrative Approval requests may be made for a period of up to three (3) years. A Graduate Faculty Administrative Approval Request Form and current LSU format vita should be submitted with the request.

Please see the Graduate School website for a complete and up-to-date list of graduate faculty members.

## Glossary

The following are definitions of terms that may be used throughout this General Catalog.

#### Academic Load

The total number of semester hours for which a student is registered in one semester or summer term.

#### Academic Year

The period beginning with fall semester and culminating with the conclusion of summer intersession.

#### **Advanced Standing**

Academic credit for one or more courses awarded to beginning freshmen upon their successful performance on an examination.

#### **Approved Elective**

Elective that is not open to the free choice of the student.

#### Audit

To enroll in a course for no credit.

#### **Center for Freshman Year**

The division in University College in which most freshman students enroll. The freshman year in the center and the following three years in one of the senior colleges represent the normal time required for completion of a baccalaureate degree program.

#### **Colleges and Schools**

The academic units of the university that offer academic degree programs; administered by deans or directors and staffed by faculty members. The type of training and the degree anticipated determine the student's choice of school or college.

#### Concentration

An alternative track of courses within a major, accounting for at least 30 percent of the major requirements. Establishment of a concentration does not require prior approval by the Board of Regents.

#### Corequisite

A concurrent requirement; usually a course or some other condition that must be taken at the same time as another course.

#### Credit

(1) The recognition awarded for the successful completion of course work.

#### **Cross-Listed**

The same course offered under the rubrics of two or more departments.

#### **Cumulative Average**

A student's grade point average based on the total number of quality points earned and the total number of semester hours attempted.

#### Curriculum

A description of the required and elective courses for a degree program.

#### Degree

The title of the award conferred on students by a college, university, or professional school upon completion of a unified program of study (i.e., Bachelor of Arts–BA; Bachelor of Science–BS; Master of Science–MS; Master of Fine Arts–MFA; Doctor of Philosophy–PhD, etc.).

#### **Degree Designation**

A degree designation for each authorized program at a public institution of higher education in Louisiana is listed in the Board of

*Regents' Inventory*. Some programs require the name of the subject area as part of the degree designation (i.e., Bachelor of Architecture–BArch; Master of Social Work–MSW; Juris Doctor–JD, etc.).

#### **Degree Program**

A grouping of campus-approved courses and requirements (i.e., minimum GPA, comprehensive examinations, English and mathematics proficiency, etc.) that, when satisfactorily completed, will entitle the student to a degree from a public institution of higher education.

#### **Degree Subject Area**

The primary discipline/field that constitutes the focus of a degree program. For example, a Bachelor of Arts in *history*. In some cases, the degree subject area is part of the degree title, as in Bachelor of Architecture, Master of Landscape Architecture.

#### **Degree Title**

The complete label of a degree program consisting of the degree designation and the degree subject area (i.e., Bachelor of Arts in history; Bachelor of Science in chemistry). After satisfactorily completing a degree program, a student will be entitled to a degree in the appropriate subject area from a public institution of higher education.

#### Departments

The academic units of the university within colleges or schools; administered by heads or chairs.

#### Elective

Course chosen by the student, as opposed to required course. The term *elective*, without a qualifier, will be understood to be a free elective, chosen by the student at his or her option from all the courses offered by the university for degree credit, with due regard for prerequisites.

#### Equivalent

When used in a course prerequisite (e.g., *Prereq: SOCL 2001 or equivalent*), this term means either credit in a comparable course or adequate preparation by other experience. Determination of equivalency is left to the discretion of individual departments.

#### **Good Standing**

Students are in good standing if they are eligible to continue or to re-enroll at the university, even if on scholastic probation or on scholastic warning status.

#### Grade Point Average (GPA)

A measure of scholastic performance; the ratio of quality points earned to semester hours attempted.

#### Major

That part of a degree program consisting of a specified group of courses in a particular discipline or field. The name of the major is usually consistent with the degree subject area. A major usually consists of 25 percent or more of the total hours required in an undergraduate curriculum. Establishment of a major requires prior approval by the Board of Regents.

#### Matriculation

The state of being registered for credit and working toward a specific degree.

#### Minor

That part of a degree program consisting of a specified group of courses in a particular discipline or field. The minor usually consists of *15 percent* or more of the total hours required in an undergraduate curriculum. Establishment of a minor does not require prior approval by the Board of Regents.

#### myLSU

The newest LSU portal provides single sign on access to numerous LSU resources including Moodle and TigerWare.

#### Nonmatriculated

The state of being registered for credit but not working toward a specific degree. Both graduate and undergraduate students may register as *nonmatriculated*.

#### **Pre-professional Program**

A nondegree program of study in preparation for entry into a professional degree program at another institution or another division of the university; normally takes from one to three years to complete.

#### Prerequisite

The preliminary requirement, usually credit in another course, that must be met before a course can be taken.

#### **Proficiency Examination**

A test equivalent to a final examination in a college-level course in which a student not formally enrolled may demonstrate competence and earn academic credit.

#### **Quality Point**

Numerical value assigned to each letter grade from "A+" to "F," when given as the final grade in a course; provides a basis for quantitative determination of a grade-point average. Quality-point values at LSU are as follows: "A+" = 4.3, "A" = 4.0, "A-" = 3.7, "B+" = 3.3, "B" = 3.0, "B-" = 2.7, "C+" = 2.3, "C" = 2.0, "C-" = 1.7, "D+" = 1.3, "D" = 1.0, "D-" = 0.7, and "F" = 0.0.

#### Registration

The process by which a duly admitted student, upon payment of required fees, is enrolled in classes.

#### **Regular Semester**

The span of weeks that comprise either the fall or spring semesters.

#### ROTC

The Reserve Officers Training Corps program.

#### Semester Hour

The unit by which coursework is measured. The number of semester hours assigned to a course is usually determined by the number of hours the class meets per week.

#### Senior College

A college or school that establishes requirements for an undergraduate degree.

#### Student Schedule

The courses in which a student is enrolled.

#### **Transfer Student**

A student who terminates enrollment in one college or university and subsequently enrolls in this university.

### **Courses: General Information**

The following are important notes concerning courses:

• General education courses are designated within the course description in **bold**.

Class minima are specified in PS-37, Minimum Class Size:	
« Below 4000	15
« Between 4000-4999	10
$\ll$ 5000 and above	5

- Academic credit provides the basis for measuring the amount of engaged learning time expected of a typical student enrolled not only in traditional classroom settings but also laboratories, studios, internships, and other experiential learning, distance, and correspondence education. A credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally established equivalency that reasonably approximates:
  - Not less than one hour (50 minutes) of lecture/classroom or direct faculty instruction and a minimum of two hours out-of-class student work for approximately 15 weeks for one semester or the equivalent amount of work over a different amount of time; or
  - At least an equivalent amount of work as required (and outlines in the bullet point above) for other academic activities including laboratory work, internships, practica, studio work, and other academic work leading to the award of credit hours.

The above described definitions do not dictate particular amounts of classroom time versus out-of-class student work. In determining the amount of work the learning outcomes of the proposed course will entail, the program may take into consideration alternative delivery methods, measurements of student work, academic calendars, disciplines, degree levels, and other similar considerations.

- Courses including a laboratory component or equivalent academic activity should indicate the distribution of credit hours between lectures and lab. Two or more contact hours are required to support each credit hour.
- When a course consists entirely or partly of laboratory, that fact is stated in the description. *When not otherwise specified, the course consists entirely of lectures.*
- The number of credit hours that a course carries per semester is listed in parentheses following the course title. If the number listed is variable, i.e. (2-4), *the amount of credit that the student is to receive must be stated at the time of registration*.
- Indication of variable credit does not mean that a course may be repeated for credit. If a course can be repeated for credit, that information is included in the course description.
- Listing of a course does not necessarily mean that it will be offered every year. Some courses are only offered in the summer such as field courses. They are indicated in the catalog by *Su*. Students may contact the departments to determine when courses will be offered.
- The phrases *also offered as..., see..., or same as...,* which appear in some course descriptions, refer to honors courses or to cross-listed courses that are available through more than one department. In each of these instances, only one of the courses may be taken for credit.

### LSU Course Numbering System

An explanation of the first digit of the four-digit course numbering system follows. The meaning of the second, third, and fourth digits varies by department. See "Year Classification of Students" in the "Regulations" section of this catalog for an explanation of the criteria for classification as a freshman, sophomore, etc.

**1000-1999** • For undergraduate students, primarily freshmen; *for undergraduate credit only*. Ordinarily open to all students; in some instances upper-division students may not take these courses for degree credit.

2000-2999 • For undergraduate students, sophomore level or above; for undergraduate credit only.

**3000-3999** • For advanced undergraduate students, junior- and senior-level; *for undergraduate credit only*. These courses constitute the advanced portion of an undergraduate program leading to the bachelor's degree. A student with fewer than 60 hours of credit may enroll in 3000 level courses if they meet the enrollment requirements of the college whose departments offer the courses.

**4000-4999** • For advanced undergraduate students (who have completed a minimum of 60 semester hours) and students in graduate and professional schools and colleges; *for undergraduate or graduate credit*.

Undergraduates with 30 or more semester hours who are making timely progress toward a degree may be admitted to 4000 level courses. Such students must have a 3.50 GPA or higher, the appropriate prerequisites, consent of the instructor, and permission of the dean of the student's undergraduate college.

*Graduate credit for LSU Seniors*. A senior at LSU who needs fewer than 15 semester hours to complete requirements for the bachelor's degree, who has maintained a GPA of at least a 3.00 during the preceding year at LSU, and who has a cumulative GPA of at least 2.75 may be permitted to register for graduate credit in courses numbered 4000-4999, provided the student registers for all the remaining courses required for graduation and for no more than 15 semester hours total. This privilege applies only during the final semester of the student's undergraduate work and is extended only upon recommendation of the chair of the department in which the student plans to enroll as a graduate student, the dean of the student's college, and approval of the dean of The Graduate School. The requested signatures of approval should be submitted on a form designed specifically for this program. This form must be submitted to The Graduate School by the last day to add classes in the semester in which graduate credit is desired. A student must complete all undergraduate degree credit courses in order to retain the privilege of obtaining graduate credit for the remaining courses.

**5000-5999** • For students in *post-baccalaureate professional programs (architecture, landscape architecture, law, and veterinary medicine)*. A student in The Graduate School may take these courses for credit with approval of the student's major department.

6000-6999 • Exclusively for teachers at the elementary, secondary, and junior college levels.

**7000-7999** • For students in The Graduate School; *for graduate credit only except as follows*. Undergraduates with 75 or more semester hours who are making timely progress toward a degree may be admitted to 7000 level courses. Such students must have a 3.50 or higher GPA, the appropriate prerequisites, consent of the instructor, and permission of the dean of the student's undergraduate college. Credit so earned will apply only toward undergraduate degree requirements, except for students enrolled in an accelerated master's degree program.

**8000-8999** • Research courses exclusively for graduate students, primarily for students working toward the master's degree; *for graduate credit only*. The number 8000 designates thesis research.

**9000-9999** • Research courses exclusively for graduate students, primarily for advanced graduate students working toward the doctoral degree; *for graduate credit only*. The number 9000 designates dissertation research.

### Louisiana Common Course Numbering System

To help students transfer from one institution to another, Louisiana public post-secondary institutions have adopted a single numbering system for many of their courses. The Louisiana Common Course Numbering System (LCCN) is a standard set of four-character abbreviations for academic disciplines and four-digit course numbers. The first digit of the number represents the academic level of the course (1 for freshman, 2 for sophomore, 3 for junior, and 4 for senior). For courses with Louisiana Common Course Numbers, the numbers appear in brackets in the course descriptions. Additional information about the LCCN can be obtained from the Louisiana Board of Regents Master Course Articulation.

Students should consult the "Undergraduate Admissions" section of this catalog for information regarding the acceptance of credit from other collegiate institutions.

### **\*\*COURSE SEARCH\*\***

The following is a listing of all courses of instruction offered by departments at LSU. This listing was up-to-date and as correct as possible at the time of publication of this catalog.

Since this catalog was prepared well in advance of its effective date, some courses may have been added, others may have been dropped, and/or changes in content may have been made.

#### Accounting

#### ACCT 2000 Survey of Accounting (3)

Prereq.: MATH 1021 or MATH 1029 or equivalent. Credit will not be given for both this course and ACCT 2001 or ACCT 2002. Students in nonbusiness curricula are advised to enroll in ACCT 2000 if they are given the option of ACCT 2000 or ACCT 2001, unless they plan to pursue a business degree at a subsequent date. All students in the E. J. Ourso College of Business are required to take ACCT 2001. Introduction to the meaning of the values presented in financial statements; management accounting concepts and internal decision making; fundamentals of individual income taxes.

#### ACCT 2001 Introductory Financial Accounting (3)

[LCCN: CACC 2113, Introduction to Financial Accounting] An honors course, ACCT 2002, is also available. Prereq.: MATH 1021 or equivalent. Credit will not be given for both this course and ACCT 2000 or ACCT 2002. Required of all students in the E. J. Ourso College of Business. Students in nonbusiness curricula are advised to enroll in ACCT 2000 if they are given the option of ACCT 2000 or ACCT 2001, unless they plan to pursue a business degree at a subsequent date. Financial accounting with emphasis on knowledge required for completion of the accounting cycle, including income measurement and financial statement preparation; accounting for current and plant assets, current and long-term liabilities, stockholders' equity, and cash flows.

### ACCT 2002 Honors: Introductory Financial Accounting (3)

Same as ACCT 2001, with special honors emphasis for qualified students. Credit will not be given for this course and ACCT 2000 or ACCT 2001.

# ACCT 2101 Introductory Managerial Accounting (3)

[LCCN: CACC 2213, Introduction to Managerial Accounting] *An honors course, ACCT 2102, is also available. Prereq.: ACCT 2000 or ACCT 2001 or equivalent. Credit will not be given for both this course and ACCT 2102.* Principles and methods of accounting primarily concerned with data gathering and presentation for purposes of internal management evaluation and decision-making.

# ACCT 2102 Honors: Introductory Managerial Accounting (3)

Same as ACCT 2101, with special honors emphasis for qualified students. Credit will not be given for this course and ACCT 2101.

#### ACCT 3001 Intermediate Accounting-Part I (3)

An honors course, ACCT 3002, is also available. Prereq.: grade of "C" or above in ACCT 2101; MATH 1431. Only Accounting and Finance students admitted to the College of Business or permission of department. Credit will not be given for both this course and ACCT 3002 or ACCT 7011. Accounting principles underlying preparation of financial statements; their application in measurement and reporting of selected balance-sheet items and related revenue and expense recognition.

#### ACCT 3002 Honors: Intermediate Accounting– Part I (3)

Same as ACCT 3001, with special honors emphasis for qualified students. Credit will not be given for this course and ACCT 3001.

#### ACCT 3021 Intermediate Accounting-Part II (3)

Prereq.: grade of "C" or above in ACCT 3001 or ACCT 3002. Continuation of ACCT 3001/ACCT 3002. Credit will not be given if credit was earned from ACCT 7011. Accounting for liabilities, income taxes, pensions, leases, stockholders' equity, earnings per share, accounting changes and corrections of errors, and income and balance sheet presentations.

#### ACCT 3121 Cost Analysis and Control (3)

[LCCN: CACC 3113, Cost Accounting (Upper Level)] *Prereq.: grade of "C" or above in ACCT 3001.* Nature, objectives, basic systems, and procedures of cost accounting and control for manufacturing firms; costvolume-profit relationships; standard costs and variance analysis; direct costing; relevant costs; activity-based costing.

#### ACCT 3122 Accounting Information Systems (3)

Prereq.: grade of "C" or above in ACCT 3001 and ISDS 1100 or ISDS 1101 or ISDS 1102. Majors only or permission of department. Analysis and design of standard accounting systems; emphasis on computerized systems and internal control issues.

# ACCT 3201 Fundamental Tax Problems and Tax Planning for Individuals (3)

Not open to accounting majors. Not intended to satisfy the requirements to sit for the CPA exam. For students with little or no previous work in accounting. Credit will not be given for both this course and ACCT 3221. General course in taxation; emphasis on aspects of taxation affecting the individual; federal and state income, estate, inheritance, gift, excise, and payroll taxes.

#### ACCT 3221 Income Tax Accounting I (3)

[LCCN: CACC 3213, Tax I (Upper Level)] *Prereq.: registration in or grade of "C" or above in ACCT 3001. Credit will not be given for both this course and ACCT 3201.* Fundamentals of federal income taxation with respect to individuals and other entities, income inclusions and exclusions and statutory deductions in arriving at tax liability.

#### ACCT 3222 Auditing (3)

[LCCN: CACC 3313, Auditing (Upper Level)] *Prereq.:* grade of "C" or above in ACCT 3021 and ACCT 3122. Theoretical and practical development of the independent audit function; generally accepted auditing standards; collection and evaluation of audit evidence; understanding internal control; risk assessment; transaction cycles; and reporting.

#### ACCT 3233 Internal Auditing I (3)

Internal auditing standards, ethics, concepts, audit techniques, and reporting practices.

#### ACCT 4021 Cases in Accounting Policy (3)

*Prereq.: ACCT 3021 and accounting major with senior standing.* Case approach; integrates financial accounting, systems, auditing, income tax, and management uses of accounting information; emphasis on financial reporting to owners, the financial community, regulatory agencies, and the general public; relationship of accounting to the law.

#### ACCT 4022 Advanced Accounting (3)

*Prereq.: grade of "C" or above in ACCT 3021.* Completion of the core financial accounting sequence; business combinations, consolidated financial statements, segment reporting, foreign operations and Securities and Exchange Commission procedures.

#### ACCT 4121 Advanced Cost Analysis (3)

*Prereq.: grade of "C" or above in ACCT 3121.* Measurement, interpretation, planning, and control of manufacturing and distribution costs; budgets and budgetary control; comparison of costs of business alternatives.

#### ACCT 4221 Income Tax Accounting II (3)

[LCCN: CACC 3223, Tax II (Upper Level)] *Prereq.:* grade of "C" or above in ACCT 3221; MS in accounting students or permission of department. Fundamentals of federal income taxation, with respect to partners, partnerships, corporations and shareholders.

# ACCT 4225 Research in Federal Income Taxation (3)

Prereq.: registration in or grade of "C" or above in ACCT 3221. MS in accounting students or permission of department. Credit will not be given for this course and ACCT 7210. Techniques and procedures involved in tax planning and research.

#### ACCT 4231 Internship in Accounting (3)

Prereq.: permission of instructor and department chair required. Grade of "C" or above in ACCT 3021. Pass-fail grading. Credit will not be given for this course and ACCT 4333. At least 20 hours per week of learning experience in accounting under the general supervision of a faculty member and direct supervision of a professional in accounting. Grading based on the faculty member's evaluation, a written report by the professional supervisor, and a written report by the student.

#### ACCT 4233 Case Studies in Auditing (3)

*Prereq.: grade of "C" or above in ACCT 3233.* Case studies in operational, compliance, and financial audits.

#### ACCT 4234 Internal Auditing II (3)

*Prereq.: grade of "C" or above in ACCT 3233.* Operation, organization and quality control audits; organization theory.

# ACCT 4235 Fraud Auditing and Forensic Accounting (3)

Prereq.: grade of "C" or above in ACCT 3001; MS in accounting students or permission of department. Credit will not be given for this course and ACCT 7235. Proactive and reactive fraud auditing including audit committee and liability related issues; investigative decision-making for prevention, detection, investigation and reporting of fraud.

#### ACCT 4237 Governance, Risk, and Controls (3)

Prereq.: grade of "C" or above in ACCT 3233 or ACCT 7233 or concurrent registration and permission of instructor. The study of the cornerstones of governance, enterprise risk management, internal audit risk planning, and control frameworks.

#### ACCT 4244 Audit Analytics (3)

*Prereq.: grade of "C" or above in ACCT 3122 or ACCT 3233. Credit will not be given for this course and ACCT 7244 or ISDS 4244.* Business and financial risk considerations and application of data analytics and visualization tools.

#### ACCT 4333 Internship in Internal Auditing (3)

Prereq.: permission of instructor and department chair required. Pass-fail grading. Credit will not be given for this course and ACCT 4231. At least 20 hrs. per week of learning experience in internal auditing under the general supervision of a faculty member and direct supervision of a professional in internal auditing. Grading based on the faculty member's evaluation, a written report by the professional supervisor and a written report by the student.

# ACCT 4421 Governmental and Not-for-Profit Accounting (3)

*Prereq.: grade of "C" or above in ACCT 3001.* Accounting, budgeting, fiscal processes, and financial records of local, state and federal governmental bodies and of private nonprofit institutions.

#### ACCT 4501 Petroleum Accounting (3)

Prereq.: grade of "C" or above in ACCT 3021 and ACCT 3121; MS in accounting students or permission of department. Accounting for oil and gas exploration and production; accounting for oil and gas leases, exploration costs, undeveloped properties, drilling and development operations, production and oil and gas revenues.

#### ACCT 7011 Intermediate Accounting (3)

*Prereq.:* ACCT 2001. Credit will not be given for this course and ACCT 3001 or ACCT 3002 and ACCT 3021. Accounting principles underlying preparation of financial statements; their application in measurement and reporting of selected balance-sheet items and related revenue and expense recognition.

#### ACCT 7021 Advanced Theory of Accounts (3)

*Prereq.:* ACCT 3021 and consent of instructor or ACCT 4022. MS in accounting students or permission of instructor.

Corporate reporting strategies and practices by managers; preparation of financial statements; interpretation of corporate financial reports.

#### ACCT 7201 Tax Aspects of Business Entities (3)

*Prereq.: ACCT 3021 or equivalent.* Basic concepts of business entities, including corporations, partnerships, and S corporations; tax consequences of the formation and operation of a business entity and distributions to the owners.

# ACCT 7210 Tax Research, Planning and Business Decision Making (3)

Prereq.: ACCT 3221 or equivalent.

*Credit will not be given for both this course and ACCT* 4225. Fundamental tax research methodology based on the Internal Revenue Code, regulations and rulings, judicial interpretations, annotated and topical tax services, computerized tax research methods and techniques of communicating research results.

#### ACCT 7222 Auditing Theory and Standards (3)

Prereq.: ACCT 3222; MS in accounting students or permission of instructor.

A comprehensive analysis of the theory and practice of independent auditing.

#### ACCT 7231 Internship in Accounting (3)

Prereq.: permission of instructor and department chair required. Pass-fail grading. Credit will not be given for this course and ACCT 7333. At least 20 hours per week of learning experience in accounting under the general supervision of a faculty member and direct supervision of a professional in accounting. Grading based on the faculty member's evaluation, a written report by the professional supervisor and a written report by the student.

#### ACCT 7232 Case Studies in Internal Auditing (3)

*Prereq.: ACCT 7233. Primarily for MBA and MS students.* Performance, compliance, prudence and fraud audits.

#### ACCT 7233 Graduate Internal Auditing (3)

Prereq.: consent of instructor. Primarily for MBA and MS students. Theory of internal auditing; efficiency, effectiveness and economy audits.

#### ACCT 7234 Operational Auditing (3)

Prereq.: ACCT 7233.

*Primarily for MBA and MS students*. Operational audit methodology for management audits, functional audits, risk analysis and auditable unit analysis.

#### ACCT 7235 Fraud Auditing (3)

Prereq.: ACCT 3001 or equivalent. MS in accounting students or permission of department. Credit will not be given for this course and ACCT 4235. Study of risk and controls relative to the deterrence, prevention and detection of beneficial and detrimental fraud.

#### ACCT 7244 Systems Auditing (3)

Prereq.: ACCT 3222 or ACCT 3233 or permission of instructor.

*Credit will not be given for this course and ACCT 4244 or ISDS 4244.* Selected topics in the control and audit of computer systems.

# ACCT 7250 Current Topics in Federal Income Taxation (3)

Prereq.: ACCT 3221 or equivalent. May be taken for a max. of 6 hrs. of credit. Tax research and planning in current major interest areas of tax law.

# ACCT 7270 Statement and Report Presentation and Analysis (3)

MS in accounting students or permission of department.

#### ACCT 7333 Internship in Internal Auditing (3)

Prereq.: permission of instructor and department chair required. Pass-fail grading. Credit will not be given for this course and ACCT 7231. At least 20 hrs per week of learning experience in internal auditing under the general supervision of a faculty member and direct supervision of a professional in internal auditing. Grading based on the faculty member's evaluation, a written report by the professional supervisor and a written report by the student.

# ACCT 7401 Ethics for Professional Accountants (3)

*Prereq.: MS in accounting students or permission of department.* Case approach to understanding the ethical and regulatory environment of the practice of professional accounting.

#### ACCT 7601 International Accounting (3)

*MS in accounting students or permission of department.* Accounting principles, auditing environments, managerial objectives, and financial reporting requirements applicable to multinational corporations; causes of international accounting problems.

#### ACCT 7900 Individual Study in Accounting (3)

A proposal outlining the nature and objectives of a research project must be approved by department faculty prior to registration; written report of semester's activities and findings required for credit. In-depth study in a selected accounting problem.

#### ACCT 8900 Pre-dissertation Research (1-9)

Pass-fail grading. May be repeated for credit. Permission of instructor and department chair required.

### ACCT 9000 Dissertation Research (1-12 per sem.)

"S"/"U" grading.

#### ACCT 9001 Accounting Research I (3)

*For doctoral students only.* Research methodologies in accounting and a survey of the accounting research literature.

#### ACCT 9002 Accounting Research II (3)

*For doctoral students only.* Theory and evidence relating to internal decision making and control, financial accounting and auditing.

#### ACCT 9003 Accounting Research III (3)

*For doctoral students only.* Continuation of ACCT 9002. Theory and evidence relating to internal decision making and control, financial accounting and auditing.

#### ACCT 9004 Accounting Research IV (3)

May be taken for a max. of 6 hrs. of credit. For doctoral students only. Seminar in current accounting research topics.

### Aerospace Studies

# ASST 1001 The Foundations of the United States Air Force (1)

*Coreq.:* ASST 1011, ASST 1012. Fundamentals of leadership, effective communication, organizational elements and weapons systems of today's Air Force.

## ASST 1002 The Foundations of the United States Air Force (1)

*Coreq.:* ASST 1011, ASST 1012. Fundamentals of leadership, effective communication, organizational elements and weapons systems of today's Air Force.

#### ASST 1011 Leadership Laboratory I (1)

*Coreq.:* ASST 1001, ASST 1002. Pass-fail grading. 2 hrs. *lab.* Applied leadership in drill and ceremony, physical fitness and military protocol.

#### ASST 1012 Leadership Laboratory I (1)

*Coreq.:* ASST 1001, ASST 1002. Pass-fail grading. 2 hrs. *lab.* Applied leadership in drill and ceremony, physical fitness and military protocol.

### ASST 2001 The Evolution of U.S.A.F. Aerospace Power (1)

*Coreq.:* ASST 2011, ASST 2012. Historical changes in the nature of warfare as a result of air power; effective communication skills in the Air Force.

### ASST 2002 The Evolution of U.S.A.F. Aerospace Power (1)

*Coreq.:* ASST 2011, ASST 2012. Historical changes in the nature of warfare as a result of air power; effective communication skills in the Air Force.

#### ASST 2011 Leadership Laboratory II (1)

*Coreq.:* ASST 2001, ASST 2002. Pass-fail grading. 2 hrs. *lab.* Intermediate leadership training through drill and ceremony, physical fitness, team building and professional development.

#### ASST 2012 Leadership Laboratory II (1)

*Coreq.:* ASST 2001, ASST 2002. Pass-fail grading. 2 hrs. *lab.* Intermediate leadership training through drill and ceremony, physical fitness, team building and professional development.

#### ASST 3001 Air Force Leadership Studies (3)

*Prereq.: permission of instructor. Coreq.: ASST 3011, ASST 3012.* Skills required by the successful leader; individual motivational and behavioral processes; leadership, communication and group dynamics; use of analytical aids in planning and organizing; total quality management; ethics, management of change, organizational power, politics and managerial strategy.

#### ASST 3002 Air Force Leadership Studies (3)

*Prereq.: permission of instructor. Coreq.: ASST 3011, ASST 3012.* Skills required by the successful leader; individual motivational and behavioral processes; leadership, communication and group dynamics; use of analytical aids in planning and organizing; total quality management; ethics, management of change, organizational power, politics and managerial strategy.

#### ASST 3011 Leadership Laboratory III (1)

*Coreq.:* ASST 3001, ASST 3002. Pass-fail grading. 2 hrs. *lab.* Experiences designed to develop leadership potential; study of Air Force customs and courtesies; drill and ceremonies; career opportunities; and the life and work of an Air Force junior officer.

#### ASST 3012 Leadership Laboratory III (1)

*Coreq.:* ASST 3001, ASST 3002. Pass-fail grading. 2 hrs. *lab.* Experiences designed to develop leadership potential; study of Air Force customs and courtesies; drill and ceremonies; career opportunities; and the life and work of an Air Force junior officer.

# ASST 4001 National Security Affairs/Preparation for Active Duty (3)

*Prereq.: permission of instructor. Coreq.: ASST 4011, ASST 4012.* Organization and implementation of national security; evolution of strategy; management of conflict; and civil-military interaction; military profession/officership; and the military justice system.

# ASST 4002 National Security Affairs/Preparation for Active Duty (3)

*Prereq.: permission of instructor. Coreq.: ASST 4011, ASST 4012.* Organization and implementation of national security; evolution of strategy; management of conflict; and civil-military interaction; military profession/officership; and the military justice system.

#### ASST 4011 Leadership Laboratory IV (1)

*Coreq.:* ASST 4001, ASST 4002. *Pass-fail grading.* 2 hrs. *leadership lab.* Advanced development of leadership skills through planning and leading activities; study of Air Force customs and courtesies; drill and ceremonies; career opportunities; and the life and work of an Air Force junior officer.

#### ASST 4012 Leadership Laboratory IV (1)

*Coreq.:* ASST 4001, ASST 4002. Pass-fail grading. 2 hrs. *leadership lab.* Advanced development of leadership skills through planning and leading activities; study of Air Force customs and courtesies; drill and ceremonies; career opportunities; and the life and work of an Air Force junior officer.

### **African & African American Studies**

### AAAS 2000 Introduction to African & African American Studies (3)

This is a General Education course. Dimensions of African & African American thought and practice in contemporary and historical perspective.

#### AAAS 2025 African American Religion (3)

This is a General Education Course. See REL 2025.

#### AAAS 2050 Contemporary Africa (3)

African social and political institutions in transition; challenges of democratization and development in the current international context.

#### AAAS 2410 Black Popular Culture (3)

Explores participation by black peoples in the creation and critique of popular culture through media such as film, music and television and terms of topics such as representation and sexuality.

#### AAAS 2511 Race Relations (3)

#### See SOCL 2511.

# AAAS 3024 African Diaspora Intellectual Thought (3)

Survey of critical ideas and theories by select diaspora scholars and writers. Emphasizes the intellectual tensions

and deliberations that undergird attempts to theorize and resolve issues involving the status of black people in the world.

#### AAAS 3044 Black Rhetorical Traditions (3)

Survey of the development of black communication styles ranging from the sermonic to the academic. Examining the black world's most effective verbal and written communicators and the tension between orality and literacy.

# AAAS 3120 Topics in History of Africa and the African Diaspora (3)

May be taken for a max. of 6 sem. hrs. of credit when topics vary. This course surveys historical moments in the life of African and/or African diaspora peoples.

#### AAAS 3122 Topics in Pre-Colonial Africa (3)

May be taken for a max. of 6 sem. hrs of credit when topics vary. Surveys African empires and civilizations from ancient times to colonial period. Emphasizes culture, religion and/or political influence and practices.

#### AAAS 3341 African American English (3)

*Also offered as* LING 3341. Survey of major issues related to historical and contemporary development of African American speech, focusing on linguistic and social features.

#### AAAS 3425 Black Women in America (3)

Surveys intersection of race and gender in the U.S. through historical and contemporary lenses, course examines commonalities, differences and struggles that mark black women's subjectivity.

### AAAS 3901 Directed Readings and Research in African and African-American Studies (1-3)

May be taken for a max. of 6 sem. hrs. credit when topics vary. Student must register with a faculty member in the AAAS discipline before registration to select the area of reading or research. Topic must not substitute for regularly offered courses.

### AAAS 3902 Special Topics in African & African American Studies (1-3)

May be taken for a max. of 6 semester hrs. credit when topics vary.

#### AAAS 4020 Senior Seminar (3)

*Prereq.: permission of instructor.* Capstone for the minor and concentration; planning and execution of a major research project demonstrating the interdisciplinary processes used by those working in the field of African American studies to develop their arguments and interpretations.

# AAAS 4124 Studies in African Diaspora Religions (3)

See REL 4124.

#### AAAS 4322 Studies in African Literature (3)

Also offered as ENGL 4322. May be taken for a max. of 6 sem. hrs. of credit when topics vary. Critical analysis of major figures and texts of fiction, drama and poetry.

#### AAAS 4323 Studies in Caribbean Literature (3)

Also offered as ENGL 4323. May be taken for a max. of 6 sem. hrs. of credit when topics vary. Critical analysis of major figures and texts of fiction, drama and poetry.

# AAAS 4400 Religious Thought of Martin Luther King Jr. & Malcolm X (3)

See REL 4400.

AAAS 4450 African American Folklore (3) See ANTH 4450.

AAAS 4800 African Americans in Sport (3) See KIN 4800.

### **Agricultural Economics**

# AGEC 1003 Introduction to Agricultural Business (3)

Offered in Fall. Nature and scope of agribusiness; application of management and marketing concepts to selected agribusiness problems; exploring agribusiness management as a profession.

# AGEC 2003 Introduction to Agricultural Economics (3)

This is a General Education course. Offered in Fall/Spring. Role of agriculture in the general economy; economic principles applied to agricultural production, marketing, consumption and policy problems.

# AGEC 3003 Economic Analysis in Agricultural Business (3)

Offered in Fall. Prereq.: grade of "C" or above in [AGEC 2003 and ECON 2030] or [ECON 2000 and ECON 2010] or equivalent; MATH 1431 or MATH 1550. 2 hrs. lecture; 2 hrs. lab. Applications of graphical, mathematical and computer-based microeconomic analysis to problems in the production and marketing of food and agricultural products.

## AGEC 3203 Agricultural Commodity Marketing and Risk Management (3)

Offered in Spring. *Prereq.*: Grade of "C" or above in AGEC 2003 and ECON 2030, or ECON 2000 and ECON 2010, or equivalent. Description and analysis of agricultural and interdependent commodity markets within the food and fiber systems of domestic and international markets; enhancing understanding of market structure and risk management on farms and in agribusiness through a simulated futures trading experience where quantitative and qualitative methods are used to manage risk in commodity portfolios.

#### AGEC 3303 Farm Management (3)

Offered in Fall Odd. *Prereq.: AGEC 2003 or equivalent.* Fundamental economic and business principles applied to a farm business; comprehensive and integrated treatment of management concepts for successful operation of a farm business.

### AGEC 3413 Agricultural Business Management Decisions (3)

Offered in Fall. Prereq.: grade of "C" or above in AGEC 2003 and ECON 2030 or ECON 2000 and ECON 2010 or equivalent. Identification of typical decisions of agricultural business firms; development of concepts, procedures and analyses that facilitate planning, organizing, directing, coordinating and controlling functions within agricultural business firms.

#### AGEC 3503 Natural Resource Economics (3)

Offered in Spring. *Prereq.: AGEC 2003 or equivalent.* Economic rationale for collective, public action in allocation of natural resources in agriculture; emphasis on economic efficiency, property rights, resource use, legal concepts, institutions and project evaluation.

#### AGEC 3700 Internship (1-3)

Offered in Variable. *Prereq.: AGEC 2003 or equivalent* and approval of department head. May be taken for a max. of 3 sem. hrs. of credit. Supervised career-oriented experience with a business or organization in the food and fiber system.

#### AGEC 3803 Agricultural Law (3)

Offered in Fall Odd. Principles of law and their application to agricultural business firms and institutions; legal processes and relationships relevant to agriculture; Louisiana Civil Code and statutes; federal law, including bankruptcy code; analysis and review of cases, documents and processes.

### AGEC 4203 Intermediate Food and Fiber Products Marketing (3)

Offered in Fall Even. *Prereq.: AGEC 3003 or equivalent.* Industrial organization analysis applied to the food and fiber system; emphasis on structural problems and their control by competition, antitrust and government.

#### AGEC 4243 Food Products Marketing (3)

Offered in Spring Odd. *Prereq.*: Grade of "C" or above in AGEC 2003 and ECON 2030, or ECON 2000 and ECON 2010; MKT 3401. An overview of the food marketing system; marketing, management, and economic principles as applied to branded food products; formulation and implementation of marketing plans for branded food products.

#### AGEC 4273 Agricultural Price Analysis (3)

Offered in Spring. *Prereq.: grade of "C" or above in* [AGEC 2003 and ECON 2030] or [ECON 2000 and ECON 2010] or equivalent; MATH 1431 or MATH 1550; and EXST 2201 or ISDS 2001. Economic processes of price discovery and price determination in agricultural input and output markets; emphasis on methods of price analysis and their application to decision processes; analysis of cyclical, trend and seasonal movements in prices.

#### AGEC 4403 Agricultural Finance (3)

Offered in Fall. *Prereq.: grade of "C" or above in ACCT* 2000 or ACCT 2001 or equivalent; grade of "C" or above in AGEC 2003 and ECON 2030, or ECON 2000 and ECON 2010 or equivalent. Capital acquisition and use in the agricultural sector; cost and availability of credit; emphasis on financial management concepts for managing growth, leverage, liquidity, risk and capital investment in agricultural business.

#### AGEC 4433 Agricultural Business Planning, Management and Policy (3)

Offered in Spring. *Prereq.: senior standing; AGEC* 3003, AGEC 3203, AGEC 3413; MKT 3401; MGT 3200; and BLAW 3200 or BLAW 3201. Integration of management, marketing and financial concepts for successful planning and implementation of agricultural business decisions; feasibility analysis, marketing policy, personnel policy, marketing mix, pricing decisions, market segmentation, marketing strategy and financial policy.

#### AGEC 4443 Farm and Rural Land Appraisal (3)

Offered in Fall Even. *Prereq.: AGEC 2003 or equivalent. Not for graduate AGEC degree credit.* Theory, methods and procedures of real estate appraisal applied to rural property; trends in rural real estate values; factors influencing rural real estate values; approaches used in rural real estate valuation.

#### AGEC 4545 Sustainable Agriculture (3)

See HORT 4545.

#### AGEC 4603 Agricultural Policy (3)

Offered in Fall. *Prereq.: grade of "C" or above in AGEC* 2003 and ECON 2030, or ECON 2000 and ECON 2010 or equivalent. Role of agriculture in the national economy; how agricultural policy decisions affect the general public; emphasis on economic impacts of policies on producers and consumers of agricultural products; effects of other nations' policies on American agriculture.

#### AGEC 4613 Agricultural Trade (3)

Offered in Spring Odd. *Prereq.: AGEC 3003 or equivalent.* Structure, trade and practices in exporting and importing regions and nations; policies of major agricultural trading nations and institutions; aid, development relationships and current development trade policy.

# AGEC 4623 Rural Resource and Community Development (3)

Offered in Spring Even. *Prereq.: AGEC 3003 or permission of instructor.* Characteristics of developed and undeveloped rural areas; analysis of economic and related problems and potential for development; public policy issues concerning rural development.

# AGEC 4700 Problems in Agricultural Economics (1-3)

Offered in Variable. *Prereq.: approval of department head. May be taken for a max. of 6 sem. hrs. of credit when topics vary.* Independent study under the direction of a faculty member or faculty committee.

# AGEC 7047 Environmental Economics and Policy (3)

See ENVS 7047.

# AGEC 7103 Advanced Statistical Methods in Agriculture (3)

Offered in Spring. Application of advanced statistical tools to problems in agricultural economics; emphasis on the general linear model, including diagnostics, applications and interpretation.

# AGEC 7113 Agribusiness Research Applications (3)

Offered in Fall. Introduction to and overview of agribusiness research strategies; design of agribusiness research projects; preparation for data collection; collection of evidence; analysis of evidence; composition of research reports; applications to agribusiness market analysis, agribusiness planning and management, and agribusiness forecasting.

# AGEC 7123 Operations Research Methods in Agricultural Economics (3)

Offered in Fall. Application of operations research methods to economic problems in agricultural production, marketing, and resource use; linear and nonlinear programming; integer programming; network analysis; dynamic programming; queuing; simulation.

# AGEC 7203 Advanced Agricultural Marketing Theory (3)

Offered in Fall Odd. *Prereq.: ECON 7701 or concurrent enrollment*. Basic and applied analytical procedures in marketing research emphasizing quantitative methods; firm theory applied to marketing.

# AGEC 7213 Applied Demand for Food Commodities (3)

Offered in Spring Odd. Examination of demand for food commodities from analytical and empirical perspectives; emphasis on economic principles that, combined with proper analytical techniques, enable students to derive theoretically-based demand systems for various components of the food and related marketing sectors.

# AGEC 7303 Agricultural Production Economics (3)

Offered in Spring Even. *Prereq.: ECON 7701 or concurrent enrollment.* Production principles applied to use of agricultural resources; analysis and interpretation of research data; theory of the farm firm, including costs, uncertainty and expectations.

# AGEC 7313 Agricultural Production and Labor Supply (3)

Offered in Fall Odd. Labor supply decisions and empirical analysis for agricultural operators and other self-employed and wage-earning households; multiple job holding; resource allocation in productive farm households; human capital formation by households and firms. Implications for household income and welfare; applications to problems in rural areas of developing and developed countries.

# AGEC 7513 Dynamics in Natural Resource Economics (3)

Offered in Fall Odd. *Prereq.: AGEC 7047 or ENVS* 7047 or concurrent enrollment. Dynamic economic concepts in evaluating natural resource problems; economically optimal usage of renewable and non-renewable natural resources.

# AGEC 7523 Nonmarket Valuation Methods in Agriculture and Natural Resources (3)

Offered in Fall Even. *Prereq.: AGEC 7047 or ENVS* 7047 or concurrent enrollment. Economic concepts and methods of nonmarket valuation applied to agricultural and natural resource economics; contingent valuation, hedonic pricing, travel cost, conjoint analysis and contingent ranking, and benefit transfer.

#### AGEC 7603 Advanced Agricultural Policy (3)

Offered in Spring Even. *Prereq.: ECON 7701 or concurrent enrollment.* Development of agricultural policy; emphasis on objectives, procedures, accomplishments and consequences of policy on agriculture and rural areas.

#### AGEC 7613 International Agricultural Trade (3)

Offered in Spring Even. *Prereq.*: *ECON 7701 or concurrent enrollment*. International economic trade theory; special reference to trade in agricultural products.

#### AGEC 7623 Rural Development Economics (3)

Offered in Fall Even. *Prereq.: ECON 7610.* Theoretical concepts in international and domestic rural development; empirical methods used in analysis of economic structure and growth; modeling public policy issues concerning international and domestic rural development.

# AGEC 7700 Internship in Agribusiness Administration (3)

Offered in Variable. Prereq.: prior approval of student's graduate committee. Pass/fail grading based on a written evaluation by the professional supervisor, a written report by the student and the faculty member's evaluation. May be taken for a max. of 3 hrs. credit. Open only to agricultural economics master's students. 300 hrs. of learning experience. General supervision by a faculty member; direct supervision by an agribusiness professional.

#### AGEC 7703 Independent Study (1-3)

*Prereq.: graduate committee approval prior to enrollment. May be taken for a max. of 6 sem. hrs. when topics vary.* Independent study of relevant subject matter areas in agricultural economics.

# AGEC 7710 Advanced Topics in Agricultural Economics (1-3)

Offered in Variable. *Prereq.: consent of instructor. May be taken for a max. of 6 hrs. of credit when topics vary.* New and specialized topics in agricultural economics.

#### AGEC 8000 Thesis Research (1-12 per sem.)

Offered in Variable. "S"/"U"grading.

AGEC 9000 Dissertation Research (1-12 per sem.) Offered in Variable. "S"/"U"grading.

### Agricultural and Extension Education and Evaluation

### AEEE 1001 Learning Leadership in Agricultural

Sciences, Natural Resources, and Extension (3) Leadership as it relates to agricultural sciences, natural resources, and extension; approaches diversity of leadership through social sciences, management, and popular culture.

#### AEEE 1002 Developing Professional Confidence: Passion, Purpose and Planning (1)

*Prereq.: Enrollment in this course is limited to students in the College of Agriculture or by permission of department.* Areas related to professional career preparation. Topics include: presentation skills, resumé and portfolio development, and interview skills. Emphasis placed on preparing students for careers in the agricultural industry and extension.

# AEEE 2001 Foundations of Agricultural & Extension Education (3)

2 hrs. lecture; 2 hrs. lab. Foundation of the economic, sociological and political influences on the historical development of agricultural and extension education; organization and delivery of agricultural and extension education programs and practices at the secondary and post-secondary levels.

### AEEE 2002 Coaching and Contest in Agricultural and Extension Education (3)

The role that career development events and contests play in agricultural and extension programs. Topics include: competition and cooperation, winning and losing, ethics, use of community resources, and academic and employability skills taught through contests; coaching as a teaching method; assisting with the coordination of carious career development events.

# AEEE 2003 Introduction to Agricultural Mechanics (3)

2 hrs. lecture; 2 hrs. lab. Methods and management of school-based agricultural education laboratories; emphasis on safety, agricultural mechanics skill development, and the management of students, facilities, equipment, and materials.

# AEEE 2011 Introduction to Agriculture Communication (3)

Students will learn the principles and skills necessary to communicate effectively about agricultural issues using visual, oral and written strategies.

### AEEE 2819 Special Topics in Agricultural and Extension Education (1-3)

*Prereq.: Permission of department. Can be repeated for up to 6 hours when topics vary.* Individual and group study of selected topics under the direction of a faculty member.

# AEEE 3010 Internship in Cooperative Extension (6)

Offered in Su Prereq.: permission of instructor. Open to selected students completing their junior year who are considering a career with the Cooperative Extension Service. Seven-week period of study, observation, and practicum in a parish Louisiana Cooperative Extension Service office plus a two-week period of classes in extension education.

# AEEE 3301 Introduction to Program Evaluation for Agricultural and Extension Educators (3)

Conducting program evaluations in real-world contexts of the formal agricultural education classroom and non-formal education settings.

# AEEE 3603 Classroom Management in Human Resource Education (1)

*Prereq.: concurrent enrollment in AEEE 3604 and AEEE 3605.* Managing the human resource education classroom; emphasis on student behavior; techniques for preventing, diagnosing and handling student discipline problems.

# AEEE 3604 Human Diversity in Learning in Human Resource Education (1)

*Prereq.: concurrent registration in or credit for AEEE* 3603 and AEEE 3605. This course strives to better prepare today's teachers/trainers to achieve their goals of delivering an effective education to diverse students who are living in a complex, interdependent world. Each of the various diversities addressed in this course mediate one another and do not act in isolation, which further complicates an educator's task, but is nonetheless critical to an understanding of classroom interaction.

# AEEE 3605 Field Experiences in Human Resource Classroom Management (1)

*Prereq.: concurrent registration in or credit for AEEE* 3603 and AEEE 3604. The purpose of this field experience is to provide direct experiences to increase understanding of learning process and apply skills for facilitating the process. The course provides detailed guides for observing the dynamics of the classroom and community, participating with the classroom teacher and then reflecting on the experience. Motivation, classroom management, and teaching strategies are the focus areas of the experience.

# AEEE 4010 Foundations of Cooperative Extension (3)

History, objectives, organization, relationships, and teaching processes in cooperative extension.

# AEEE 4011 Communications in Agricultural & Extension Education (3)

Synthesis and application of concepts and principles of communication in the extension educational program.

# AEEE 4026 Informal Education Programs for Youth (3)

Organization, leadership and evaluation of informal youth education programs.

# AEEE 4027 Advanced Issues in Youth Development (3)

Current trends and issues associated with adolescent development; analytical approach to identifying and prescribing solutions to the challenges encountered by youth in a wide range of youth development contexts.

#### AEEE 4039 International Experience in Agricultural and Extension Education (3)

May be taken for a max. of 6 hrs. credit when topics vary. Issues related to international development; emphasis on extension and nonformal education programs in third world countries.

# AEEE 4101 Instructional Design & Evaluation for Agricultural & Extension Education (3)

Curriculum, course unit, and lesson plan development in agricultural and extension education; selection and evaluation of course materials.

# AEEE 4102 Teaching Methods in Agricultural & Extension Education (3)

Recognized methods of instruction and presentation in agricultural education, including the selection of teaching aids and support materials, strategies for working with diverse learners, and classroom management.

# AEEE 4200 Teaching in Agricultural & Extension Education Content Areas (3)

*Prereq.: AEEE 2001, AEEE 4101 and AEEE 4102.* Teaching agricultural and extension education in the formal classroom; emphasis on content area, selection of materials and planning instruction.

#### AEEE 4201 Laboratory Management in Agricultural & Extension Education (3)

*Prereq.: AEEE 2001, AEEE 4101 and AEEE 4102.* Preparation, organization and evaluation of agricultural and extension education laboratory experiences.

# AEEE 4504 Development of Community Programs in Agricultural Education (3)

Principles and practices in planning, organizing and conducting youth organization activities.

#### AEEE 4505 Youth Leadership (3)

Youth leadership skill development in non-formal and formal education settings.

### AEEE 4506 Service Learning in Community-Based Organization (3)

Based on theoretical underpinnings of *Service Learning*, students are linked to the community and service-recipients through the service learning cycle within the context of a community-based learning experience.

# AEEE 4601 Workforce Education Learner Assessment (3)

Assessment of progress of workforce education students in psychomotor, cognitive and affective skills.

#### AEEE 4801 Teaching Internship: Professional (3)

*Prereq.: concurrent registration in AEEE 4802 and AEEE 4803. Permission of instructor. Not for graduate credit.* Professional responsibilities; teacher association work; teacher, parent and student organization activities; school visits and certification.

#### AEEE 4802 Internship: Preparation (3)

Prereq.: concurrent enrollment in AEEE 4801 and AEEE 4803. Permission of instructor. Not for graduate credit. Evaluation of student's ability to operate and maintain an instructional laboratory; development of curriculum materials for organizing and evaluating the teaching environment.

#### AEEE 4803 Internship: Delivery (3)

Prereq.: concurrent enrollment in AEEE 4801 and AEEE 4802. Permission of instructor. Not for graduate credit. Evaluation of the student's lesson preparation, demonstration ability; laboratory organization, participation in class activities and evaluating teaching environment.

# AEEE 4806 Professional Internship in Agricultural & Extension Education (9)

*Prereq.: permission of instructor. Not for graduate credit.* Professional responsibilities including developing instructional plans and materials; delivering instruction in classroom, laboratory, and field environments; organizing and operating instructional laboratories; participating in professional associations; planning and conducting teacher/parent/student organization activities; conducting school observational visits; completing teacher certification requirements.

# AEEE 4807 Teaching Internship in Agricultural & Extension Education (6)

*Prereq.: permission of instructor.* Professional responsibilities including developing instructional plans and materials; delivering instruction in classroom, laboratory and field environments; organizing and operating instructional laboratories; participating in professional associations; planning and conducting teacher/parent/student organization activities; conducting school observational visits; completing teacher certification requirements.

# AEEE 4819 Special Topics in Agricultural & Extension Education (1-3)

*May be taken for a max. of 6 sem. hrs. of credit when topics vary.* Individual and group study of selected topics under the direction of a faculty member.

## AEEE 4820 Independent Study in Agricultural & Extension Education and Evaluation (1-3)

Prereq.: permission of instructor. May be taken for a max. of 3 credit hours in an individual semester. Repeatable up to 6 credit hours.

Independent study in specialized areas of agricultural and extension education and evaluation. Research on an agricultural and extension education or evaluation topic chosen by the student under the direct supervision of a faculty member.

# AEEE 7003 Philosophy of Agriculture and Extension Education (3)

Major philosophies that have influenced agriculture and extension education; philosophical approaches to problems in agriculture and extension education.

### AEEE 7016 History and Philosophy of Agricultural and Extension Education (3)

Events and organizations that contributed to the development of agricultural education.

### AEEE 7027 Volunteer Administration in Non-Profit Organizations (3)

Examines current trends, theories, and management models associated with volunteer administration. The study and practice of integrating volunteers effectively into an organization to enhance performance and results.

#### AEEE 7101 Advanced Instructional & Curriculum Design in Agricultural & Extension Education (3)

Introduction to the theory, principle, research, and practices that contribute to the knowledge base of curriculum development and instructional design in agricultural and extension education.

### AEEE 7122 Program Development in Agricultural & Extension Education (3)

*Prereq.: permission of instructor.* Concepts relating educational planning, planned change and social change to development of effective extension education programs.

# AEEE 7201 Advanced Teaching Techniques in Agricultural & Extension Education (3)

Principles underlying the human resource teaching/learning process; use of effective agricultural and extension education teaching methods and strategies.

#### AEEE 7622 Evaluation Methods (3)

Concepts and principles of evaluation applied to programs in extension education.

### AEEE 7703 Coaching, Mentoring, and Supervision in Agricultural and Extension Education (3)

The role of mentoring in the success of new teaching professionals including early career teachers as well as student teachers in Agricultural and Extension Education. Reviewing the four components of professional practice, examining techniques for observation and conferencing, and providing the opportunity to reflect upon teaching/mentoring experiences and to consider the impact of mentoring upon professional practice.

#### AEEE 7722 Facilitation Skills (3)

Understanding group dynamics, models of decisionmaking, and intervention strategies; basic and advanced facilitation skills required to lead groups through numerous group processes, including developing mission, vision, and values statements; strategic planning; focus groups and structured learning experiences.

#### AEEE 7816 Orientation to Graduate Studies in Agricultural and Extension Education and Evaluation (1-3)

*Prereq.: permission of department. May be taken for a max. of 3 hrs. of credit when topics vary.* Current professional educational problems in agricultural and extension education.

#### AEEE 7822 Advanced Extension Education (3)

Integration of relevant concepts, principles and research findings in program development, leadership and organization, learning and teaching and evaluation.

# AEEE 7824 Independent Study in Agricultural & Extension Education (3)

May be taken for a max. of 6 hrs. of credit. Permission of *instructor*. Independent study under the guidance of the graduate faculty.

#### AEEE 7825 Advanced Special Topics in Agricultural and Extension Education and Evaluation (1-3)

Prereq.: permission of department. May be taken for a max. of 3 sem. hrs. in an individual semester. Repeat credit max. of 12 sem. hrs. when topics vary.

### AEEE 7826 Internship in Agricultural and Extension Education and Evaluation (1-9)

Prereq.: Permission of instructor. May be taken for a max. of 9 sem. hrs. of credit. Each credit hour requires 40 hours of supervised experience. Supervised on-the-job experience within an approved agricultural education, extension education, and/or evaluation business, institution or organization.

#### AEEE 7827 Research Proposal Writing (3)

*Prereq.: permission of instructor.* The application of research principles, practices, and strategies within the context of agricultural and extension education.

#### AEEE 7828 Change Theory (3)

Facilitating the student's understanding of change as a socio-cultural-technical process. Special attention will be given to case studies and other examples of innovation, diffusion, and change that are especially applicable to the agricultural, food, fiber, and natural resources system as well as society at-large; the student's role as a change agent both now and in his/her future professional life.

#### AEEE 7905 Advanced Research Design (3)

*Prereq.: LHRD 7901 or equivalent.* Research design; emphasis on research concepts and procedures and their application to extension education.

### AEEE 7909 Application, Interpretation and Reporting of Research Results (3)

*Prereq.: LHRD 7901, LHRD 7903 or AEEE 7905 or equivalent.* Selection of appropriate statistical techniques and interpretation of results.

#### AEEE 7927 Designing & Conducting Childrenand Youth-Based Research (3)

Systematic application of social research procedures for designing and conducting children- and youth-based research.

#### AEEE 8000 Thesis Research (1-12)

Prereq.: permission of department. "S/U" grading.

#### AEEE 9000 Dissertation Research (1-12)

Prereq.: permission of department. "S/U grading".

### Agriculture

#### AGRI 1001 Introduction to Agriculture (1)

Enrollment in this course is limited to freshmen in the College of Agriculture or by permission of department. Opportunities and educational requirements in all fields of agriculture and careers in agriculture.

#### AGRI 1005 Science and Society (3)

This is a General Education course. Principles of biology applied in a sociological context; relationships among scientific inquiry, ethics, social values and public policies for the beginning science and nonscience student.

#### AGRI 1011 Issues in Agriculture (1)

Prereq.: Enrollment in this course is limited to freshmen in the Agriculture Residential College or by permission of department. Exploring prevalent issues in all fields of agriculture and agricultural research.

#### AGRI 2001 Special Topics in Agriculture (1-3)

*Prereq.: permission of department. May be repeated for a max. of 6 sem. hrs. credit.* Faculty directed agriculture seminar designed to aid students in becoming aware of the issues facing them as they pursue leadership roles in agriculture fields.

#### AGRI 2200 Agriculture in the Boot: Fall Experience of Louisiana Agriculture Industries (2)

Prereq.: Permission of department. Required field trip. Students are responsible for paying travel expenses associated with this course. This course is designed to provide students with a broad understanding of the diversity of the Louisiana agricultural industries. The course is structured for students to meet one hour for a lecture each week to prepare for a full two-day tour of business, farms, and stakeholders involved in agriculture and related industries over fall break.

# AGRI 2900 Directed Studies in Agricultural Leadership Development (1-3)

*Prereq.: Permission of department. May be repeated for a max. of 6 sem. hrs. credit when topics vary.* Faculty directed leadership development practicum in an agricultural-related activity or program intended to integrate academic learning with practice.

#### Agronomy

#### AGRO 1001 Plants and People (3)

This is a General Education course. 2 hrs. lecture; 2 hrs. lab. Survey of plant kingdom; anatomy, growth and development of plants; ecosystem structure, sustainable agriculture and animal/plant systems; plant nutrition, food additives, and food safety; plant breeding for improved food and fiber; biotechnology and its role in modern agriculture.

# AGRO 2011 Analysis of Environmental Issues (3) See EMS 2011.

#### AGRO 2025 Introduction to Crop Science (3)

Introduction to basic principles of crop science and agronomy in relation to the major food, fuel and fiber crops of Louisiana and U.S.; includes history of agriculture, plant growth and development, factors affecting plant growth, key characteristics of food, fiber and fuel crops and basic plant protection.

#### AGRO 2051 Soil Science (4)

Also offered as EMS 2051. Prereq.: CHEM 1002 or CHEM 1212 or equivalent. 3 hrs. lecture; 2 hrs. lab. Principles of soil science; properties of soils related to plant growth and the environment.

### AGRO 2086 Introduction to Turfgrass Management (3)

See HORT 2086.

#### AGRO 3010 Research Problems (3)

*Prereq.: consent of instructor. May be taken for a max. of 6 sem. hrs. of credit.* Independent research under a faculty member, culminating in an oral and written report.

#### AGRO 3025 Principles of Crop Production (3)

*Prereq.: AGRO 2025 and AGRO 2051.* In-depth study of production practices for corn, cotton, rice, soybean, sugarcane, wheat and other important agronomic crops of Louisiana.

#### AGRO 3040 Soil Conservation (2)

Also offered as EMS 3045. Prereq.: AGRO 2051. Causes and effects of soil erosion and sedimentation; their effects on the quality of the environment; methods of reducing erosion and soil environmental pollution.

#### AGRO 3090 Agronomic Internship (3)

*Prereq.: overall GPA of 2.50 and written consent of instructor. May be taken for a max. of 6 sem. hrs. of credit.* Work experience in crop, soil or environmental quality related areas culminating in acceptable written reports and a seminar presentation.

#### AGRO 4005 Forage Ecology and Management (3)

Forage crop physiology, adaptation, production, utilization and management; impact on people, animals, and the environment.

#### AGRO 4052 Soil Fertility and Soil Management (4)

*Prereq.: AGRO 2051. 3 hrs. lecture; 2 hrs. lab.* Factors affecting plant growth and utilization of essential elements; mechanisms of nutrient uptake; diagnosis of deficiencies; use of lime and fertilizers; potential nutrient losses.

#### AGRO 4055 Chemical Properties of Soil (4)

Also offered as EMS 4055. Prereq.: AGRO 2051. 3 hrs. lecture; 3 hrs. lab. Chemical and mineral properties of soil constituents; their effects on major chemical processes in soils involving nutrients cycling and fate of hazardous chemicals within soil environment systems.

### AGRO 4056 Microbial Ecology and Nutrient Cycling in Soils (4)

Also offered as BIOL 4256 and EMS 4056. Prereq.: AGRO 2051 and BIOL 2051. 3 hrs. lecture; 3 hrs. lab. Microorganisms in terrestrial environments and biogenic processes influencing C, N, S and P cycling; role of microorganisms in biological nitrogen fixation, plant nutrient availability, formation of soil humus and decomposition of organic and inorganic materials; impact of microbial processes on environmental quality.

# AGRO 4058 Soil Morphology and Classification (4)

*2 hrs. lecture; 4 hrs. lab (field and mapping).* Genesis, profile morphology, processes related to classification and soil taxonomy; relationships of soil process and classification to environmental quality.

#### AGRO 4064 Principles of Plant Breeding (4)

Also offered as HORT 4064. Prereq.: ANSC 2072 or equivalent. 3 hrs. lecture; 2 hrs. lab. Methods of plant genetic improvement: hybridization, genetic manipulation and variety development; selection for insect, disease and environmental stress resistance; genetic engineering and biotechnology.

## AGRO 4070 Weed Science and the Environment (3)

*Prereq.: BIOL 1001, BIOL 1002, CHEM 1001, CHEM 1002 or equivalent. 2 hrs. lecture; 2 hrs. lab.* Weed biology and economic importance of weeds in the diverse agriculture of Louisiana; weed management programs, characteristics of important herbicides, mechanisms of herbicidal action, fate of herbicides in the environment and pesticide application, labeling and safety.

#### AGRO 4071 Weed Biology and Ecology (3)

*Prereq.: BIOL 1001, BIOL 1002, or equivalent. 2 hrs. lecture; 2 hrs. lab.* Study of general plant ecological principles, reproduction, dormancy, interference, allelopathy, competition, herbicide resistance and the impact of weed control mechanisms on weed and crop communities.

#### AGRO 4077 Environmental Soil Physics (3)

Also offered as EMS 4077. Prereq.: AGRO 2051. The physical soil system; the soil components and their physical interactions; processes involving water flow in saturated and unsaturated soils, air and heat; fate and transport of applied chemicals in the soil profile and processes governing the mobility of contaminants.

# AGRO 4078 Land Use Planning and Land Management (3)

Prereq.: AGRO 2051 or consent of instructor. 2 hrs. lecture; 2 hrs. lab. Land use planning and management based on chemical, mineralogical and physical properties of soils; includes applications of soils, plants, hydrology and remote sensing datasets for advanced GIS analysis. Land use management foci include crops, pasture, urban, disturbed and wetlands.

# AGRO 4087 Best Practices for Environmental Sustainability in Agriculture (3)

Also offered as ANSC 4087 and EMS 4087. A comprehensive instruction of practices and strategies available to mitigate the environmental effects of many agricultural practices; focus on both structural Best Management Practices (BMPs) and management based BMPs used in both animal and agronomic crop production; new and emerging pollution reduction strategies.

#### AGRO 4091 Special Topics in Crop Science (1-3)

Prereq.: written consent of instructor. May be repeated for credit; a total of 6 sem. hrs. may be earned in AGRO 4091 and AGRO 4092 combined.

#### AGRO 4092 Special Topics in Soil Science (1-3)

Prereq.: written consent of instructor. May be repeated for credit. A total of 6 sem. hrs. may be earned in AGRO 4091 and AGRO 4092 combined.

#### AGRO 7001 Seminar (1)

*May be repeated for credit.* Topics of current interest in agronomy, horticulture, soils and the environment.

#### AGRO 7010 Teaching Practicum (1)

Also offered as EMS 7010 and HORT 7010. Prereq.: Graduate standing in Plant, Environmental and Soil Sciences and permission of department. Students whose native language is not English must pass the Michigan Test of English proficiency or equivalent, and receive prior written approval by the student's major professor and the faculty teaching mentor. May be repeated once, for a maximum of 2 hours of credit. Teaching practicum and learning experience through assisting a faculty member with a class. Responsibilities may include: preparing and conducting laboratories or lectures and grading assignments and exams.

# AGRO 7040 Research Methods in Plant Science (3)

*Prereq.: EXST 7005 or equivalent; field research experiemce.* Research activities and methodology used to conduct field research in plant science and pest management disciplines from initial planning through publication of results; areas of emphasis include: research proposal preparation and protocol development; selection of experimental design and implementation of research; data analysis, interpretation and presentation; and manuscript preparation.

#### AGRO 7041 Plant-Herbicide Physiology (3)

Prereq.: AGRO 4070 or equivalent. 2 hrs. lecture; 3 hrs. lab. Lab project includes several techniques used in plantherbicide physiology research. Physiological and physical interactions of herbicides with plants; emphasis on the specific mode of action, entry, movement, metabolism and selectivity mechanisms of each chemical family of herbicides.

### AGRO 7051 Advanced Soil Fertility and Plant Nutrition (4)

*Prereq.:* AGRO 4052 and BIOL 3060 or equivalent. 3 hrs. *lecture;* 2 hrs. *lab.* Principles of bioavailability and acquisition of mineral nutrients by crop plants; interactions of plant roots with the soil environment; fertilizer use efficiency.

#### AGRO 7055 Advanced Soil Chemistry (3)

*Prereq.:* AGRO 4055, MATH 1552 and one semester of physical chemistry. Theory of physio-chemical properties of soils; emphasis on soil solution chemistry and soil environmental properties.

#### AGRO 7067 Crop Breeding Practicum (2)

Prereq.: AGRO 4064 or equivalent. May be taken for a max. of 4 hrs. of credit when topics vary; consent of instructor. Application of plant breeding techniques for agronomic and horticultural crops, emphasis on visits to practicing public and commercial programs.

### AGRO 7071 Advanced Plant Genetics (3) See HORT 7071.

### AGRO 7073 Current Topics in Plant Breeding and Genetics (1)

*Prereq.:* AGRO 4064 or equivalent. May be taken for a max. of 2 hrs. of credit when topics vary. Current discussion on plant breeding topics such as plant breeding theory, applied plant breeding, association mapping for crop improvement, and application of genome sequencing in crop improvement.

# AGRO 7074 Quantitative Genetics in Plant Improvement (3)

Also offered as HORT 7074. Genotypic and environmental values, their effects and interactions, homeostasis, stability; variances, covariances, combining ability, genetic advance, selection indices, molecular markers for quantitative trait loci.

#### AGRO 7080 Applied Plant Genomics (3)

*Prereq.: AGRO 4064 or equivalent.* Advances in plant genomics, structure and function of plant genome, genomics tools and their practical application for plant improvement, future prospect of plant genomics.

### AGRO 7165 Biogeochemistry of Wetland Soils and Sediments (3)

Same as OCS 7165.

### AGRO 8000 Thesis Research (1-12 per sem.) "S"/"U"grading.

### AGRO 8901 Research in Crop Science (3-6)

*Prereq.: consent of department. May be repeated for up to 6 hours of credit.* 

### AGRO 8902 Research in Soil Science (3-6)

*Prereq.: consent of department. May be repeated for up to 6 hours of credit.* 

AGRO 9000 Dissertation Research (1-12 per sem.) "S"/"U"grading.

### **Animal Science**

### ANSC 1011 Introduction to Animal Science (3)

Science and production of beef cattle, sheep, swine and horses; their role in American agriculture.

### ANSC 2001 Animal Unit Internship (1)

Prereq.: ANSC 1011 and consent of school. 3 hrs. work experience. Pass-fail grading. May be taken for a max. of 5 sem. hrs. of credit, with no more than two credits each in beef, dairy, dairy foods, equine, poultry, sheep, swine and meat areas. Supervised work experience with animal behavior and care and/or animal foods processing.

#### ANSC 2031 Equine Industry and Management (2)

*Prereq.: ANSC 1011; consent of instructor.* Management principles utilized to make appropriate decisions regarding horse feeding, breeding, selection, disease control and economic planning.

## ANSC 2033 Live Animal and Carcass Evaluation (2)

*Prereq.: ANSC 1011. 1 hr. lecture; 2 hrs. lab.* Basic principles and techniques involved in evaluation of meat animals and their carcasses.

## ANSC 2040 Techniques of Judging and Evaluating Dairy Cattle (2)

*Prereq.:* ANSC 1011. Development of live animal evaluation techniques in a clinical setting; emphasis on visual evaluation, decision making, oral communication.

## ANSC 2042 Techniques of Judging and Evaluating Poultry and Poultry Products (2)

*Prereq.*: ANSC 1011. *May be taken for a max. of 4 hrs. of credit when topics vary. 4 hrs. lab.* Principles and techniques in evaluation of poultry and poultry products.

### ANSC 2050 Animal Management Practices (2)

*Prereq.: ANSC 1011 and permission of deparment.* Techniques of routine and special conditions of animal handling, care, movement, restraint, and their interactions with different facilities and production systems. Practices in large and small ruminants, equine, swine, and poultry.

## ANSC 2051 Large Farm Animal Practicum Laboratory (1)

Prereq.: ANSC 1011; credit or registration in ANSC 2050 and permission of department. 3 hrs lab. Students will learn by practicing routine as well as special husbandry activities related to animal handling, care, movement, retraint and their interactions with different facilities and production systems. Pracitices in large (dairy and beef) ruminants and equine will be the main subjects of this course.

## ANSC 2052 Small Farm Animals Practicum Laboratory (1)

*Prereq.:* ANSC 1011; credit or registration in ANSC 2050 and permission of department. 3 hr. lab. Students will learn by practicing routine as well as special husbandry activities related to animal handling, care, movement, restraint and their interactions with different facilities and production systems. Practices in small ruminants (sheep and goats), swine, and poultry will be the main subjects of this course.

### ANSC 2053 Foods of Animal Origin (3)

*Prereq.: BIOL 1201, CHEM 1201.* Principles of production, quality, and safety of meat, dairy, and egg products.

### ANSC 2060 Companion Animal Management (3)

*Prereq.:* ANSC 1011. Husbandry, nutrition, health, behavior and management of companion animals including dogs, cats, horses, small ruminants, small mammals, rodents, reptiles, and avian species; opportunities in the pet-related fields and industries.

### ANSC 2072 Introductory Agricultural Genetics (3)

*Prereq.: BIOL 1002 or equivalent.* Introduction to classical and modern genetic methodology used in agriculture including Mendelian principles, successful breeding techniques, assisted reproductive technology, genetic engineering and other biotechnological methods.

### ANSC 2075 Milk and Dairy Foods (3)

Product processing techniques and related principles involved in market preparation of milk and dairy foods; emphasis on consumer and processor viewpoints relative to product composition, processing, marketing, sanitation and related environmental aspects.

### ANSC 2085 Milk Quality Control Laboratory (2)

*Prereq.: permission of department. 4 hrs. lab.* Public Health Service laboratory and inspection procedures for quality control on dairy farms and in milk plants.

#### ANSC 2093 Dairy Products Judging (2)

Development of sensory evaluation techniques in a clinical setting; emphasis on sensory evaluation, decision-making, oral communication.

### ANSC 3010 Applied Animal Feed Formulation (3)

*Prereq.: ANSC 1011 and MATH 1021 or equivalent.* Formulation of feed for agricultural animals, including feed laws, feed stuffs and requirements.

### ANSC 3050 Animal Science Internship (3)

Prereq.: junior standing with an overall GPA of 2.20 and permission of school. May be taken for a max. of 6 hrs. of credit. 120 hours of supervised work experience in the animal industry per credit hour.

### ANSC 3053 Meats (3)

*Prereq.*: BIOL 1002 or BIOL 1202 and ANSC 1011 or NFS 2000. *2 hrs. lecture; 2 hrs. lab.* Livestock and meat industry relationship; live animal and carcass comparison, slaughtering, processing, identification and utilization of meat and meat products.

### ANSC 3060 Companion Animal Health Maintenance and Disease (3)

*Prereq.: BIOL 1001, BIOL 1002, BIOL 1005 or BIOL 1201 and BIOL 1202, CHEM 1201 and CHEM 1202.* Canine and feline health maintenance programs, diagnostic tests and tools used in animal health professions, etiology, clinical findings, diagnosis, prevention and treatment of common companion animal diseases and disorders, zoonotic disease transmission and prevention.

# ANSC 3070 Small Animal Anatomy and Physiology (3)

*Prereq.: BIOL* 1001, *BIOL* 1002, *BIOL* 1005 or *BIOL* 1201 and *BIOL* 1202 and *CHEM* 1201 and *CHEM* 1202. Anatomy and physiology of small companion animals and exotic species.

## ANSC 3133 Growth and Development of Livestock (3)

*Prereq.: BIOL 1202.* Cell, tissue and body growth, development, and composition; patterns of tissue deposition in livestock; control and modification of normal and abnormal growth.

### ANSC 3900 Animal Science Research (1-3)

*Prereq.: permission of school. May be taken for a max. of 6 sem. hrs. of credit.* Directed individual research of a topic in the animal sciences.

# ANSC 4001 Parasite Effects on Animal Performance (2)

*Prereq.:* BIOL 1201 and BIOL 1202 or BIOL 1001 and BIOL 1002; ANSC 1011 or equivalent. 1 hr. lecture; 2 hrs. *lab.* Endo- and ecto-parasites that affect performance of domestic animals and birds.

## ANSC 4005 One Health: People, Animals, and the Environment (3)

*Prereq.: BIOL 1201, BIOL 1202, and BIOL 2051.* Introduction to the concept of the One Health Initiative and the integration between human health, animal health, and environmental health in the prevention and control of diseases. The course will introduce students to basic epidemiology, public health concepts, disease outbreak and surveillance, zoonotic diseases, emerging infectious diseases, and food safety.

### ANSC 4009 Animal Nutrition (3)

*Prereq.*: ANSC 1011; *CHEM 2060 or equivalent*. Basic principles of nutrition including chemical composition of feedstuffs, digestion, metabolism and functions and values of nutrients.

### ANSC 4018 Principles of Animal Genetics (3)

*Prereq.: ANSC 2072 or BIOL 2153 and EXST 2201 or equivalent.* Concepts of animal breeding and genetics as they relate to farm livestock.

## ANSC 4020 Dairy Foods Technology: Frozen and Cultured Dairy Products (3)

*Prereq.:* ANSC 2075, BIOL 1202 or CHEM 1202. 2 hrs. *lecture;* 3 hrs. lab. Principles and processes in the manufacture of ice cream and other frozen dairy products; concentrated milk products; cheese and fermented milk products.

## ANSC 4031 Incubation and Hatchery Management (2)

*Prereq.: 6 sem. hrs. of biological science or equivalent. 1 hr. lecture; 2 hrs. lab.* Chick development and embryology; incubation principles and practices; hatchery equipment and design; hatchery management.

## ANSC 4040 Quality Assurance in the Food Industry (4)

Also offered as NFS 4040. Prereq.: BIOL 2051. 3 hrs. lecture; 2 hrs. lab. Laboratory functions, manufacturing processes and microbiological, chemical and statistical techniques used to provide complete quality assurance for the modern dairy food plant.

### ANSC 4043 Domestic Animal Endocrinology (3)

*Prereq.:* BIOL 1001, BIOL 1002, and BIOL 1005, or BIOL 1201 and BIOL 1202; and CHEM 2060. Relation of endocrine system reproduction, growth and function of domestic animals.

## ANSC 4045 Reproductive Physiology of Farm Animals (3)

*Prereq.*: BIOL 1001 or BIOL 1201; BIOL 1002 or BIOL 1202; and CHEM 2060. Reproductive anatomy and physiology of farm animals; factors affecting reproductive performance.

### ANSC 4046 Physiology of Lactation (2)

*Prereq.: BIOL 1001, BIOL 1002, BIOL 1005 or BIOL 1201, BIOL 1202 and CHEM 2060.* Anatomy and development of the mammary gland; physiological and biochemical regulation of mammary growth and milk secretion; emphasis on farm animals.

### ANSC 4047 Reproductive Management (1)

*Prereq.: credit or registration in ANSC 4045. 3 hrs. lab.* Principles and techniques necessary for reproductive management in cattle.

### ANSC 4050 Animal Biotechnology (3)

*Prereq.: at least 8 hrs. of biological sciences.* Recent developments in animal bio-technology; development of methods to increase the efficiency of growth, reproduction and lactation; improvement of resistance to disease and stress.

### ANSC 4051 Poultry Biology (3)

2 hrs. lecture; 2 hrs. lab. Structure, conformation and selection of fowl; emphasis on egg formation and oviposition; other physiological factors of economic importance.

### ANSC 4052 Poultry Management (3)

*Prereq.:* 6 sem. hrs. of biological science or equivalent. 2 hrs. lecture; 2 hrs. lab. Growth and development of the U.S. commercial egg and broiler industries; principles of nutrition, genetics, housing, management and marketing; types of integrated operations and contract production.

### ANSC 4054 Dairy Farm Management (3)

*Prereq.: ANSC 1011 and ANSC 3010 or consent of instructor. 2 hrs. lecture; 3 hrs. lab.* Principles of managing dairy cattle; recommended farm practices for economical milk production.

## ANSC 4060 Contemporary Issues in the Animal Sciences (3)

*Prereq.: ANSC 1011 or equivalent.* Discussion and evaluation of contemporary issues and policies related to animal biology and agriculture; development of reasoning and interpersonal skills; preparation of subject matter for distribution to the public.

#### ANSC 4080 Dairy Microbiology (3)

*Prereq.: BIOL 2051. 2 hrs. lecture; 2 hrs. lab.* Application of specific microbiological procedures used in quality control and processing of dairy products.

#### ANSC 4081 Swine Production (3)

Prereq.: credit or registration in ANSC 4009 or ANSC 3010 or equivalent. Graduate students in animal, dairy and poultry sciences or animal and dairy sciences may not take more than one of the following for graduate credit: ANSC 4081, ANSC 4084, ANSC 4086 or ANSC 4088. 2 hrs. lecture; 2 hrs. lab. Management practices of swine; reproduction, nutrition, diseases and other aspects of production.

#### ANSC 4084 Beef Cattle Production (3)

Prereq.: ANSC 3010 or equivalent. Graduate students in animal, dairy and poultry sciences or animal and dairy sciences may not take more than one of the following for graduate credit: ANSC 4081, 4084, ANSC 4086, or ANSC 4088. 2 hrs. lecture; 2 hrs. lab. Management practices of beef cattle; reproduction, breeding, feeding, marketing, herd health and other aspects of production in the south.

#### **ANSC 4086 Small Ruminant Production (3)**

Prereq.: ANSC 3010 or equivalent. Graduate students in animal, dairy and poultry sciences or animal and dairy sciences may not take more than one of the following for graduate credit: ANSC 4081, ANSC 4084, 4086 or ANSC 4088. 2 hrs. lecture; 2 hrs. lab. Theory and practice of management, breeding and feeding of sheep and goats for production under southern conditions.

### ANSC 4087 Best Practices for Environmental Sustainability in Agriculture (3)

See AGRO 4087.

### ANSC 4088 Horse Production (3)

Prereq.: ANSC 1011, ANSC 3010. Graduate students in animal, dairy and poultry sciences or animal and dairy sciences may not take more than one of the following for graduate credit: ANSC 4081, ANSC 4084, ANSC 4086 or 4088. 2 hrs. lecture; 2 hrs. lab. Theory and practice of raising horses; conformation and selection; nutrition, reproduction, breeding and production in the south.

#### ANSC 4092 Animal Science Proseminar (1)

Nutrition, animal breeding and production, and meat processing and preservation.

#### ANSC 4094 Meat Technology (3)

Prereq.: ANSC 3053; and BIOL 2083 or equivalent. 2 hrs. lecture; 2 hrs. lab.

### ANSC 4095 Reproductive Physiology and Management of Zoo, Laboratory and Companion Animals (4)

Prereq.: basic course in biology or zoology; and ANSC 4045 or equivalent. Field trips are required. 3 hrs. lecture; 2 hrs. lab. Reproductive biology of zoo, laboratory and companion animals, with emphasis on breeding management.

### ANSC 4900 Special Topics in Animal Science (1-3)

*Prereq.: permission of school. May be taken for a max. of 6 hrs. of credit when topics vary.* Topics from the animal sciences.

#### ANSC 7001 Experimental Methods (2)

*Prereq.: credit or registration in EXST 7004 or equivalent.* Scientific methods applied to animal science.

## ANSC 7004 Population Genetics in Animal and Plant Breeding (4)

*Prereq.:* EXST 7004 or equivalent. 3 hrs. lecture; 2 hrs. lab. Genetic concepts concerning characteristics of populations.

## ANSC 7018 Rumen Physiology and Metabolism (3)

Comparison of ruminants to other herbivora and nonruminant animals; factors associated with obtaining and utilizing feeds; fermentation products; symbiotic relationship between microflora and the host animal; host animal metabolism.

### ANSC 7020 Andrology (3)

*Prereq.: ANSC 4045 or equivalent.* Male reproductive physiology and anatomy of avian, aquatic and mammalian species.

## ANSC 7033 Advanced Growth and Development of Livestock (3)

*Prereq.: Credit for or enrollment in BIOL 4087 or equivalent.* Cell, tissue, body growth, development, and composition; patterns of tissue deposition; control and modification of normal and abnormal growth.

#### ANSC 7051 Advanced Physiology of Reproduction (3)

*Prereq.: ANSC 4045.* Processes of reproduction in farm animals.

## ANSC 7052 Biotechnology of Gamete and Embryo Physiology and Micromanipulation (4)

*Prereq.:* ANSC 4045 or equivalent. 3 hrs. lecture; 2 hrs. lab. Procedures for manipulation of mammalian gametes in vitro and general biotechnology techniques; emphasis on application to biological research.

### ANSC 7061 Research in Animal Science (1-6)

Prereq.: consent of department head. May be repeated for credit; max. credit of 6 hrs. for MS degree and 9 hrs. for PhD degree. Research in animal nutrition, breeding and production; physiology of reproduction; meat technology.

### ANSC 7091 Seminar (1)

May be taken for a max. of 4 hrs. of credit.

### ANSC 7900 Special Topics in Animal Science (1-6)

*Prereq.: consent of department head. May be taken for a max. of 6 sem. hrs. of credit when topics vary.* Special topics of interest in animal science.

### ANSC 8000 Thesis Research (1-12 per sem.) "S"/"U"grading.

ANSC 9000 Dissertation Research (1-12 per sem.) "S"/"U"grading.

### Anthropology

## ANTH 1001 Introduction to Physical Anthropology and Prehistory (3)

[LCCN: CATR 2023, Biological Anthropology] This is a General Education course. Origin and evolution of people; evolution and its physiological bases; human prehistory; human diversity; origin and development of human culture through the rise of civilization.

## ANTH 1003 Introduction to Cultural and Social Anthropology (3)

[LCCN: CATR 2013, Cultural Anthropology] This is a General Education course. Diversity of human cultures; nature of culture, social organizations, subsistence patterns, economics, law, politics, religion, language and other institutions of culture viewed in cross-cultural perspective.

### ANTH 2014 Introduction to Forensic Anthropology (3)

Exploration of medico-legal discipline of forensic anthropology with a focus on human skeletal anatomy.

### ANTH 2015 Introduction to Archaeology (3)

This is a General Education course. Archaeological goals, methods, techniques and interpretations; particular prehistoric cultural sequences or projects; relationship of archaeology with other social, life and earth sciences.

### ANTH 2016 Field Methods in Archaeology (3-6)

*Prereq.:* ANTH 2015 or equivalent. May be taken for a max. of 6 sem. hrs. of credit. Techniques of survey, mapping, excavation and recording; participation in one or more archaeological excavations.

### ANTH 2050 World Archaeology (3)

This is a General Education course. Survey of human culture history from the stone age to the present; spread of humanity around the globe; major cultural developments including hunting and gathering, origins of agriculture, discovery and spread of metalworking, rise of ancient civilizations, and development of the modern world.

### ANTH 2051 Introduction to World Ethnography (3)

This is a General Education course. Sex roles, economic pursuits, values, beliefs, families and other institutions of selected nonwestern peoples; implications for American culture.

### ANTH 2423 Introduction to Folklore (3)

This is a General Education course. See ENGL 2423.

**ANTH 3004** Archaeology and the Bible (3) See REL 3004.

## ANTH 3060 Introduction to Anthropological Linguistics (3)

Also offered as LING 3060. Cultural variation in language and its uses; problems of language classification and areal linguistics; practice in phonemic and morphemic analysis of nonwestern languages.

### ANTH 3401 The Study of Folklore (3)

*Also offered as ENGL 3401.* History of the study of folklore; methods of collection, interpretation and analysis of folklore materials; myth, folktale, legend, folk song, ballads, folk humor, festival and folk speech; psychological, contextual and structural analysis of oral literature; specific reference to the heritage of Louisiana and the South.

### ANTH 3997 Selected Topics in Anthropology (3)

*Prereq.: Permission of department. May be taken for a max. of 6 sem. hrs. of credit when topics vary.* In-depth coverage of selected topics from anthropology.

### ANTH 4002 South Asian Society, Polity and Culture (3)

See INTL 4002.

### ANTH 4004 The North American Indians (3)

Also offered as LING 4004. Origin, distribution, language and culture of the aboriginal population.

## ANTH 4008 Ancient Civilizations of Middle America (3)

Ancient settlement, development of agriculture, rise and fall of ancient civilizations in Middle America including Olmec, Maya and Aztecs.

### ANTH 4010 Human Osteology (3)

*Prereq.: ANTH 1001, or BIOL 1002 or BIOL 1202.* Evolutionary biology and functional anatomy of the human skeleton.

### ANTH 4014 Forensic Anthropology (3)

*Prereq.: permission of instructor.* Fundamental concepts and application of techniques in forensic anthropology.

### ANTH 4017 Louisiana Archaeology (3)

*Two overnight field trips.* Archaeological data relative to the Indian cultures dating from the end of the Pleistocene period to the early historic era.

### ANTH 4018 Historical Archaeology (3)

Also offered as HIST 4151. Broad range of archaeological goals, methods and interpretations unique to the study of the historic past; colonial and plantation archaeology in the southeastern U.S.

### ANTH 4019 Geoarchaeology (4)

See GEOL 4019.

### ANTH 4020 Method and Theory in Archaeology (3)

*Prereq.:* ANTH 1001 or ANTH 1003 and ANTH 2015 or equivalent. Empirical method and theory in archaeological research emphasizing the logic of scientific argument; history of American archaeology, survey of modern archaeological interpretations, types of explanation, logic of archaeological classification and formation of research designs.

## ANTH 4021 Advanced Field Methods in Archaeology (3-6)

Prereq.: ANTH 2015 and ANTH 2016 or equivalent and at least one upper-division or graduate course in archaeology. May be taken for a max. of 6 sem. hrs. credit when topics vary. Advanced techniques of surveying, mapping, excavation, soil sampling and recording.

# ANTH 4022 Ancient Civilizations of South America (3)

Survey of South American prehistory and the development of human civilizations. Archaeological perspective used to explore the various ways of life and cultural achievements in the various regions of the continent from the Amazon lowlands to the Andean highlands and the Pacific desert coast.

### ANTH 4023 Latin American Cultures (3)

Spanish-American cultures in Latin America; their relationship to current societal changes.

### ANTH 4024 Aerial Photo Interpretation and Image Processing (3)

See GEOG 4020.

### ANTH 4025 Archaeology of Foodways (3)

Exploration of foodways through the material remains preserved in the archaeological record. Examination of the variability of foodways in the past from early human consumption patterns to the emergence of food production and ancient civilizations.

### ANTH 4028 Ancient Maya in the Media (3)

Study of how ancient Maya are portrayed in the media including documentary and feature films, Internet, written texts, radio and television.

### ANTH 4031 Comparative Religions (3)

Also offered as REL 4031. Religious systems in different levels of sociocultural evolution.

### **ANTH 4032 Religion, Gender and Society (3)** See REL 4032.

### ANTH 4040 Biological Anthropology (3)

*Prereq.:* ANTH 1001, or BIOL 1002 or BIOL 1202. Evolutionary theory, human variation, fossil record of human evolution and primate behavior.

# ANTH 4042 Enterprise Geographic Information Systems (3)

See GEOG 4042.

### ANTH 4050 Black Music in America (3)

Cultural and historical survey of musical genres created and developed by black Americans.

### ANTH 4051 Africa (3)

People and cultures of Africa; emphasis on cultural transformation and contemporary societies. Topics include: kinship, gender, economics, religion, healing, politics, urbanism, post-colonialism, and transnationalism.

### ANTH 4053 African-American Cultures (3)

Cultures of African-Americans in the western hemisphere; their origins, development and present distinctiveness.

### ANTH 4060 Language and Culture (3)

Also offered as LING 4060. Prereq.: ANTH 3060 or COMD 2050 or equivalent. Relationships between various aspects of language and culture.

### ANTH 4070 Medicine, Bodies and Power (3)

Examines bodily practice, social theory and cultural analysis of the body in health, illness and healing. Crosscultural perspectives and ethnography are considered in relation to forms of social power.

### ANTH 4074 Place and Culture (3)

Also offered as GEOG 4074. Consideration of place and culture as two core concepts in geography and anthropology.

### ANTH 4082 Social and Cultural Anthropology (3)

For graduate students with little or no anthropology background. Culture, society and language in primitive and complex settings.

## ANTH 4083 Environmental Change of the Ice Age (3)

See GEOG 4083.

**ANTH 4086 Human-Environment Interactions (3)** See GEOG 4086.

**ANTH 4087 Gender, Place and Culture (3)** *Also offered as GEOG 4087 and WGS 4087.* 

#### ANTH 4090 Ethnographic Methodology (3)

Theories and techniques of ethnography; emphasis on utilization of informants.

### ANTH 4200 Human Evolutionary Biology (3)

*Prereq.:* ANTH 1001, or BIOL 1002 or BIOL 1202. Anatomy, physiology, and behavior of humans in functional, comparative, and evolutionary perspectives.

## ANTH 4440 Vernacular Architecture and Material Culture (3)

*Also offered as ARCH 4440.* Subject matter and instructor may vary; additional details available from department. World vernacular architecture, including indigenous and folk buildings; other forms of material culture.

### ANTH 4450 African American Folklore (3)

*Also offered as AAAS 4450.* History, theories and methodologies used in the study of African American folklore in the United States.

#### ANTH 4470 Folklore of the African Diaspora (3)

African, Caribbean and African-American cultures from the viewpoint of the diaspora.

### ANTH 4475 American Folklore (3)

See ENGL 4475.

### ANTH 4909 Undergraduate Seminar in Anthropology (3)

Prereq.: Permission of department. May be taken for a max. of 9 sem. hrs. when topics vary.

ANTH 4995 Internship (1-3) See GEOG 4995.

#### ANTH 4997 Special Topics in Anthropology (3)

Prereq.: Permission of department. May be taken for a max. of 6 sem. hrs. when topics vary.

ANTH 4998 Independent Reading and Research in Anthropology (1-6)

An honors course, ANTH 4999, is also available. Prereq.: written consent of instructor. May be taken for a max. of 6 sem. hrs. Supervised reading or research selected by qualified advanced students.

### ANTH 4999 Honors: Independent Reading and Research in Anthropology (1-6)

Same as ANTH 4998, with special honors emphasis for qualified students.

### ANTH 7032 Comparative Studies in World Costume (3)

See TAM 7032.

### ANTH 7060 Conversation and Discourse (3)

Also offered as LING 7060. Prereq.: completion of one course in linguistics. Analysis of language in use; conversation, narrative, culturally specific genres; emphasis on discourse structures in naturally occurring context.

## ANTH 7070 Ritual: Theory, Context and Performance (3)

Investigates influential theories and key debates, range of activities and contexts and performance of rituals.

#### ANTH 7074 Poetics of Place (3)

Also offered as GEOG 7074. Prereq.: ANTH 4074/GEOG 4074 or permission of instructor. Combination of the observational method of social science with the literary insights of poetry and fiction; understanding of how places where humans live out their lives convey a variety of meanings beyond that of the strictly utilitarian.

## ANTH 7081 Conceptual Issues in Human Evolution (3)

*Prereq.: permission of instructor. May be repeated for a max. of 6 sem. hrs. credit when topics vary.* Consideration of the various conceptual issues on human evolution.

### ANTH 7085 History of Anthropological Theory (3)

Major theories in all branches of anthropology; emphasis on cultural and social anthropology.

## ANTH 7108 Mesoamerican Archaeology Seminar (3)

*Prereq.: Permission of department. May be taken for a max. of 6 hrs. of credit when topics vary.* 

### ANTH 7200 Human Fertility (3)

Biological, behavioral and demographic aspects of human reproduction.

### ANTH 7760 Readings in Creolization (3)

A seminar on linguistic, literary, historical and anthropological creolization and creolized cultures.

## ANTH 7766 Readings in the Caribbean and Louisiana (3)

Seminar on the theoretical interpretation of Caribbean and Louisiana cultures.

### ANTH 7901 Introduction to Graduate Study (1)

Same as GEOG 7901. Techniques and methods of the profession for incoming graduate students.

### ANTH 7906 Nature of Culture (3)

### ANTH 7909 Selected Topics in Anthropology (3)

Also offered as LING 7909. Prereq.: permission of instructor. May be taken for a max. of 9 hrs. of credit when topics vary.

### ANTH 7936 Advanced Qualitative Research in Geography and Anthropology (3)

Also offered as GEOG 7936.

### ANTH 7943 Paleoclimatology (3)

See GEOG 7943.

## ANTH 7954 Anthropology of Complex Societies (3)

Anthropological assumptions of theory and technique; problems generated by applying these assumptions to contemporary Africa, India, Latin America and Anglo-America.

### ANTH 7962 Field Methods in Linguistics (3)

Also offered as LING 7962. Prereq.: at least one upperdivision or graduate linguistics course. 2 hrs. lecture; 1 hr. individual consultation. Recording and analyzing a living non-European language and using a native-speaking informant.

#### ANTH 7999 Research in Anthropology (1-6)

Also offered as LING 7999. Prereq.: written consent of instructor. May be repeated for credit. Total credit earned in ANTH 4998 and ANTH 7999 cannot exceed 9 sem. hrs. Individual supervision of advanced research and field work in anthropology.

### ANTH 8000 Thesis Research (1-12 per sem.)

"S"/"U" grading. Permission of instructor.

ANTH 9000 Dissertation Research (1-12 per sem.)

Prereq.: permission of instructor. "S/U" grading.

### Arabic

#### ARAB 1101 Beginning Arabic (4)

[LCCN: CARB 1014, Elementary Arabic I] This is a General Education course. *Native speakers of Arabic will not receive credit for this course*. Supplementary work in language laboratory. Introduction to alphabet, vocabulary and grammar; elementary language study with oral, written and reading practice.

### ARAB 1102 Beginning Arabic (4)

[LCCN: CARB 1024, Elementary Arabic II] This is a General Education course. *Prereq.: ARAB 1101 or equivalent. Native speakers of Arabic will not receive credit for this course. Supplementary work in language*  *laboratory. Continuation of ARAB 1101.* Elementary language study with oral, written and reading practice.

### ARAB 2001 Arabic Culture (3)

*Taught in English; knowledge of Arabic not required.* Introduction to Arabic history and the varieties in Arabic Culture.

### ARAB 2080 Arabic Conversation (3)

*Prereq.: ARAB 1102.* Intensive oral drills, supplemented with exercises in grammar and vocabulary.

### ARAB 2101 Intermediate Arabic (3)

This is a General Education course. *Prereq.: ARAB 1102. Native speakers of Arabic will not receive credit for this course. Continuation of the study of Arabic. Supplementary work in language laboratory.* Development of writing, reading, and speaking skills.

### ARAB 2102 Intermediate Arabic (3)

This is a General Education course. *Prereq.: ARAB 2101. Native speakers of Arabic will not receive credit for this course. Continuation of the study of Arabic. Supplementary work in language laboratory.* Development of writing, reading and speaking skills.

### ARAB 3101 Advanced Arabic I (3)

*Prereq.: ARAB 2102 or equivalent.* Introduces authentic classical and modern Arabic texts; continuing development of reading, writing, speaking and listening.

### ARAB 3102 Advanced Arabic II (3)

*Prereq.: ARAB 3101 or equivalent.* Introduces authentic classical and modern Arabic texts, especially poetry; continuing development of reading, writing, speaking and listening.

### ARAB 4915 Independent Work (1-3)

*Prereq.: permission of department. May be taken for a max. of 6 hrs. of credit when topics vary.* Readings in Arabic literature directed by a senior faculty member.

### Architecture

### ARCH 1001 Architectural Design I (6)

*Prereq.: permission of department. 12 hrs. studio.* Emphasis on two-dimensional representation of threedimensional forms; development of basic skills in architectural design drawing and modeling.

#### ARCH 1002 Architectural Design II (6)

An honors course, ARCH 1102 is also available. Prereq.: ARCH 1001. Credit will not be given for this course and ARCH 1102. 12 hrs. studio. Emphasis on the organization of spaces, form and process, and development of skills in architectural design drawing and modeling.

### ARCH 1102 Honors: Architectural Design II (6)

Same as ARCH 1002, with special emphasis for qualified Honor students. Prereq.: ARCH 1001. Credit will not be given for this course and ARCH 1002. 12 hrs. studio.

### ARCH 2001 Architectural Design III (6)

An honors course, ARCH 2101 is also available. Prereq.: ARCH 1002 or ARCH 1102; Coreq.: ARCH 2003. Credit will not be given for this course and ARCH 2101. 12 hrs. studio. Emphasis on abstract and theoretical organizational concepts; space, form, function and resolution of materials and structural systems.

### **ARCH 2002 Architectural Design IV (6)**

An honors course, ARCH 2102 is also available. Prereq.: ARCH 2001 or ARCH 2101; Coreq.: ARCH 2006. Credit will not be given for this course and ARCH 2102. Required field trip. Students are responsible for paying travel expenses associated with the course. 12 hrs. studio. Emphasis on process, materials theory, site inventory and analysis and impact of regionalism.

### **ARCH 2003 Architectural Techniques (3)**

*Prereq.: ARCH 1002; Coreq.: ARCH 2001.* Exploration of drawing, modeling and digital applications to the design process; specific techniques will vary based on projects assigned in ARCH 2001.

### **ARCH 2006 Architectural Topics (3)**

*Prereq.: ARCH 2003; Coreq.: ARCH 2002.* Use of case studies to contrast the meanings of buildings designed in urban or rural environments.

### ARCH 2007 History of Architecture I (3)

This is a General Education course. The development of architectural and spatial forms as they relate to changing perceptions of self, society and the natural world. From prehistory to the 13th century.

### ARCH 2008 History of Architecture II (3)

This is a General Education course. The development of architectural and spatial forms as they relate to changing perceptions of self, society and the natural world from the Italian Renaissance through modern times.

### ARCH 2101 Honors: Architectural Design III (6)

Same as ARCH 2001, with special emphasis for qualified Honor students. Prereq.: ARCH 1002 or ARCH 1102; Coreq.: ARCH 2003; Credit will not be given for this course and ARCH 2001. 12 hrs. studio.

### ARCH 2102 Honors: Architectural Design IV (6)

Same as ARCH 2002, with special emphasis for qualified Honors students. Prereq.: ARCH 2001 or ARCH 2101; Coreq.: ARCH 2006. Credit will not be given for this course and ARCH 2002. Required field trip. Students are responsible for paying travel expenses associated with the course. 12 hrs. studio.

#### **ARCH 2401** Appreciation of Architecture (3)

This is a General Education course. Architectural concepts and principles; architectural vocabulary, style, symbolic form characteristics, spatial character and refinements.

## ARCH 3000 Supervised Independent Study and Research (1-3)

*Prereq.: consent of instructor. May be taken for a max. of 6 sem. hrs. of credit with consent of school director.* Investigation of areas of interest not covered in other departmental courses.

### ARCH 3001 Architectural Design V (6)

An honors course, ARCH 3101, is also available. Prereq.: approval for advancement to upper division in architecture. Required field trip. Students are responsible for paying travel expenses associated with the course. Credit will not be given for this course and ARCH 3101. 12 hrs. studio. Emphasis on programming, site analysis and planning, functional planning and resolution of structural and architectural systems.

### ARCH 3002 Architectural Design VI (6)

An honors course, ARCH 3102 is also available. Prereq.: ARCH 3001 or ARCH 3101, ARCH 3007. Credit will not be given for this course and ARCH 3102. 12 hrs. studio. Emphasis on planning buildings while incorporating studies in the technologies of materials, structure, environmental controls, lighting and acoustics.

### ARCH 3003 Architectural Structures I (3)

*Prereq.: approval for advancement to upper division in architecture.* Building structural mechanics, statics, strength of materials and theories of structures.

### ARCH 3004 Architectural Structures II (3)

*Prereq.: ARCH 3003.* Design and application of timber and steel structures in architecture.

### ARCH 3007 Architectural Systems (3)

*Prereq.: approval for advancement to upper division in architecture.* Detailed treatment of construction materials and systems, with emphasis on large scale application of enclosure systems and steel and concrete structures.

### **ARCH 3008 Environmental Control Systems (3)**

*Prereq.: approval for advancement to upper division in architecture.* Principles and practices of selection and design of mechanical systems, including lighting, electrical distributions, acoustics, plumbing, vertical transportation and fire suppression.

### ARCH 3101 Honors: Architectural Design V (6)

Same as ARCH 3001, with special emphasis for qualified Honors students. Prereq.: approval for advancement to upper division in architecture. Required field trip. Students are responsible for paying travel expenses associated with the course. Credit will not be given for this course and ARCH 3001. 12 hrs. studio.

#### ARCH 3102 Honors: Architectural Design VI (6)

Same as ARCH 3002, with special emphasis for qualified Honors students. Prereq.: ARCH 3001 or ARCH 3101, ARCH 3007. Credit will not be given for this course and ARCH 3002. 12 hrs. studio.

### **ARCH 4001 Architectural Design VII (6)**

An honors course, ARCH 4101 is also available. Prereq.: ARCH 3002 or ARCH 3102. Credit will not be given for this course and ARCH 4101. 12 hrs. studio. Emphasis on the advancement of sustainable communities through analysis, building design and the study of socially responsible approaches to development and building practice.

### **ARCH 4002 Architectural Design VIII (6)**

An honors course, ARCH 4102, is also available. Prereq.: ARCH 4001 or ARCH 4101 or permission of department. Required field trip. Students are responsible for paying travel expenses associated with the course. Credit will not be given for this course and ARCH 4102 or ARCH 4202. 12 hrs. studio. Emphasis on the design of single or multiple buildings in urban environments.

### ARCH 4003 Intensive Design Studio (6)

Offered in Su *Prereq.: admission to the M.Arch program. 12 hrs. studio.* Introduction to design, analysis, and the development of basic architectural skills.

### ARCH 4007 History of Architecture III (3)

*Prereq.: ARCH 2008.* Majors only or by permission of department. Development of architectural and spatial forms as they relate to changing perceptions of self, society and the natural world in the 20th century.

### ARCH 4031 Architectural Structures III (3)

*Prereq.: ARCH 3003.* Design and application of concrete structures in architecture.

## ARCH 4032 Advanced Architectural Technology (3)

*Prereq.:* ARCH 3008. Seminar relating to topics of architectural technologies including, but not limited to building structures, environmental concerns, electronic transfer of information.

### ARCH 4041 Issues in Sustainability (3)

Examination of issues in sustainability as they relate to the practice of architecture.

### ARCH 4051 Advanced 20th Century Architectural History (3)

Prereq.: ARCH 2007, ARCH 2008. Topics in 20th century architectural history and theory; writing component.

### ARCH 4062 Urban Design and Planning (3)

Fundamentals of urban morphology in relation to historical, social, political and economic systems.

### ARCH 4072 Community Design Studies (3)

Study of community design and community-based practice with emphasis on contemporary participatory action research and techniques.

#### **ARCH 4090 Restoration Studies (3)**

Theory and methodology of architectural restoration; tools and techniques of restoration.

### ARCH 4101 Honors: Architectural Design VII (6)

Same as ARCH 4001, with special emphasis for qualified Honor students. Prereq.: ARCH 3002 or ARCH 3102. Credit will not be given for this course and ARCH 4001. 12 hrs. studio. Theory and methodology of architectural restoration; tools and techniques of restoration.

### ARCH 4102 Honors: Architectural Design VIII (6)

Same as ARCH 4002, with special emphasis for qualified Honors students. Prereq.: ARCH 4001 or ARCH 4101 or permission of department. Required field trip. Students are responsible for paying travel expenses associated with the course. Credit will not be given for this course and ARCH 4002 or ARCH 4202. 12 hrs. studio.

#### ARCH 4155 Recording Historic Structures (3)

*Prereq.: permission of department. 1 hr. lecture; 2 hrs. lab.* Hands-on field and laboratory experience in current methods of documenting historic buildings, including hand methods, photography and photogrammetry.

# ARCH 4202 Architectural Design VIII Off-Campus (6)

For off-campus study only. Permission of department required. Credit will not be given for this course and ARCH 4002 or ARCH 4102. 12 hrs. studio. Emphasis on the design of single or multiple buildings in an urban setting.

### ARCH 4221 Selected Topics in Architecture (3)

May be taken for a max. of 12 hrs. of credit with school approval. Studies in various subjects related to architecture.

## ARCH 4353 Principles and Practices of Land Development (3)

Environmental, physical and financial aspects of land development.

# ARCH 4440 Vernacular Architecture and Material Culture (3)

See ANTH 4440.

### ARCH 4700 Research Methods (3)

Major research methods in architecture; hypothesis formulation and testing, data gathering and analysis.

## ARCH 4993 Advanced Computer Aided Architectural Graphics (3)

*Prereq.: consent of instructor.* The development and application of advanced computer-based architectural design and communication skills.

## ARCH 5001 Comprehensive Architectural Design (6)

An honors course, ARCH 5101, is also available. Prereq.: ARCH 4002 or ARCH 4102 or ARCH 4202; Coreq.: ARCH 5005. Credit will not be given for this course and ARCH 5101. 12 hrs. studio. Emphasis on the comprehensive design of a single building integrating material selection, mechanical, acoustical, structural, lighting and two- and three-dimensional studies.

# ARCH 5002 Architectural Design Concentration (6)

An honors course, ARCH 5102, is also available. Prereq.: ARCH 4002 or ARCH 4102 or ARCH 4202. Credit will not be given for this course and ARCH 5102 or ARCH 5202. 12 hrs. studio. Emphasis on architectural problems developed around faculty expertise and emerging opportunities in the profession.

### **ARCH 5003 Advanced Architectural Topics (3)**

Seminar relating to various topics in architecture; writing component.

### **ARCH 5004 Concentration Seminar (3)**

May be taken for a max. of 9 hrs. of credit when topics vary. Various topics relating to architectural issues.

# ARCH 5005 Advanced Architectural Techniques (3)

Prereq.: ARCH 4002 or ARCH 4102 or ARCH 4202 or ARCH 7005; Coreq.: ARCH 5001, ARCH 5101 or ARCH 7006. Preparation and correlation of working drawings, specifications and/or manuals associated with various project phases and through a digital workflow.

### **ARCH 5006 Professional Practice (3)**

Exploration and analysis of project acquisition, contract negotiations, governmental regulations, personnel, office management and the architect's societal role.

### **ARCH 5008 Community Design Practicum (6)**

Prereq.: ARCH 3002 or ARCH 3102, LA 3002 or permission of department. Minimum 280 hours of supervised experience. Supervised learning experience in the Office of Community Design and Development or approved off-campus site with emphasis on preprofessional services for community-based projects.

## ARCH 5101 Honors: Comprehensive Architectural Design (6)

Same as ARCH 5001, with special emphasis for qualified Honors students. Prereq.: ARCH 4002 or ARCH 4102 or ARCH 4202; Coreq.: ARCH 5005. 12 hrs. studio. Credit will not be given for this course and ARCH 5001.

# ARCH 5102 Honors: Architectural Design Concentration (6)

Same as ARCH 5002, with special emphasis for qualified Honors students. Prereq.: ARCH 4002 or ARCH 4102 or ARCH 4202. 12 hrs. studio. Credit will not be given for this course and ARCH 5002 or ARCH 5202.

## ARCH 5202 Architectural Design Concentration Off-Campus (6)

May be taken for a max. of 12 sem. hrs. of credit when topics vary. For off-campus study only. Credit will not be given for this course and ARCH 5002 or ARCH 5102. Permission of department required. 12 hrs. studio. Emphasis on architectural problems developed around faculty expertise and emerging opportunities in the profession.

### ARCH 7001 Graduate Design Studio I (6)

*12 hrs. studio.* The use of space and form in relation to concept in the exploration of basic architectural elements.

### ARCH 7002 Graduate Design Studio II (6)

*Prereq.: ARCH 7001. 12 hrs. studio.* Emphasis on the design of buildings in a variety of physical settings.

### ARCH 7003 Graduate Design Studio III (6)

Prereq.: ARCH 7002. Required field trip. Students are responsible for paying travel expenses associated with the course. 12 hrs. studio. Emphasis on architectural programming and the design of buildings incorporating technologies of materials and various architectural systems.

### ARCH 7004 Graduate Design Studio IV (6)

*Prereq.: ARCH 7003. 12 hrs. studio.* Emphasis on the design of buildings incorporating technologies of environmental systems.

### ARCH 7005 Graduate Design Studio V (6)

*Prereq.: ARCH 7004. 12 hrs. studio.* Introduction to contextual building design in an urban setting with emphasis on site and context analysis and community planning in a collaborative working environment.

### ARCH 7006 Graduate Design Studio VI (6)

*Prereq.: ARCH 7005. Coreq.: ARCH 5005. Credit will not be given for both this course and ARCH 8000. 12 hrs. studio.* Emphasis on the synthesis of all issues addressed in previous studios in the comprehensive design of buildings.

# ARCH 7007 Modern Architecture: History and Theory (3)

The development of architectural history and theory from the nineteenth to the mid-twentieth century.

# ARCH 7008 Contemporary Architecture: History and Theory (3)

The development of architectural history and theory from the mid-twentieth century to the present day.

### ARCH 7600 Seminar in Architecture (3)

May be taken for a max. of 9 hrs. of credit when topics vary. Selected topics in architecture.

### ARCH 7900 Architectural Studies/Research (3)

Prereq.: written consent of School of Architecture Graduate Committee. May be taken for a max. of 6 sem. hrs. of credit. Selected readings and/or research under the supervision of graduate faculty.

### ARCH 8000 Thesis Research (1-12 per sem.)

"S"/"U" grading. Credit will not be given for both this course and ARCH 7006.

### **Art: Ceramics**

## ART 1661 Introduction to Ceramics: Handbuilding (3)

Prereq.: majors/minors only, ART 1009 or ART 1012 or consent of instructor. 6 hrs. studio. Students are responsible for studio fee associated with course. Exploration of hand-building techniques, surface applications and kiln firing.

## ART 1662 Introduction to Ceramics: Wheel Throwing (3)

Prereq.: ART 1009 or ART 1012 or consent of instructor. 6 hrs. studio. Students are responsible for studio fee associated with course. Problems in ceramic forming techniques, mixing of clays and glazes and kiln firing.

### ART 2655 Basic Jewelry/Metalsmithing (3)

6 hrs. studio. Students are responsible for studio fee associated with course. Piercing, construction, cold connection, soldering, forming, and stone setting; studio problems in bronze, copper, and sterling silver.

## ART 2656 Intermediate Jewelry/Metalsmithing (3,6)

Prereq.: ART 2655 or consent of instructor. May be taken for a max. of 9 hrs. of credit. Registration for all multiplecredit courses taken for over three credits in a given semester will require the prior permission of the instructor. 6, 12 hrs. studio. Students are responsible for studio fee associated with course. Intermediate studio work in jewelry/metalsmithing involving model making and the casting processes.

### **ART 2661 Intermediate Ceramics (3)**

An honors course, ART 2662 is also available. Prereq.: ART 1661 and/or ART 1662 and ART 1762 or permission of instructor. May be taken for a max. of 9 sem. hrs. of credit. Credit will not be given for this course and ART 2662. 6 hrs. studio. Studio techniques and issues in ceramics; continued investigation of hand-building and wheel-throwing.

### ART 2662 Honors: Intermediate Ceramics (3)

Same as ART 2661 with special emphasis for qualified Honors students. Prereq.: ART 1661 and/or ART 1662 and ART 1762 or permission of instructor. May be taken for a max. of 9 sem. hrs. of credit. Credit will not be given for this course and ART ART 2661. Students are responsible for studio fee associated with course. 6 hrs. studio.

### **ART 4641 Special Studies in Ceramics (3)**

Prereq.: ART 1661 or ART 1662 or permission of instructor. May be taken for a max. of 9 sem. hrs. of credit. Students are responsible for studio fee associated with course. 6 hrs. of studio. Advanced studio work in predetermined area of specialization with emphasis on formulation of clay bodies, glazes and practice of kiln operation, building and maintenance.

# ART 4651 Special Studies in Jewelry/Metalsmithing (3,6)

Prereq.: consent of instructor based on review of student's portfolio. May be taken for a max. of 15 hrs. of credit. Registration for all multiple-credit courses taken for over three credits in a given semester will require the prior permission of the instructor. 6, 12 hrs. studio. Students are responsible for studio fee associated with course. Studio work in predetermined area of specialization with emphasis on a single technique, material or aesthetic research in art jewelry and metalsmithing.

### ART 4655 Advanced Jewelry/Metalsmithing (3,6)

Prereq.: consent of instructor based on review of student's portfolio. May be taken for a max. of 15 hrs. of credit. Registration for all multiple-credit courses taken for over three credits in a given semester will require the prior permission of the instructor. 6, 12 hrs. studio. Students are responsible for studio fee associated with course. Advanced studio work in one specific process such as: forging, forming, reproduction processes, advanced construction techniques, CAD/CAM, mechanisms, clasps, chain construction. Emphasis on historical and contemporary aesthetic in art jewelry and metalsmithing.

### ART 4661 Advanced Ceramics (3)

Prereq.: ART 2661, ART 2761, and permission of instructor. May be taken for a max. of 9 sem. hrs. of credit. Students are responsible for studio fee associated with course. 6 hrs. studio. Studio problems in ceramics.

### ART 4691 Senior Project (3)

Prereq.: permission of instructor, 12 sem. hrs. of credit in ART 4641 or ART 4651 or ART 4661 or ART 4761. This course is not offered during the summer term. Students are responsible for studio fee associated with course. 6 hrs. studio. Proposal and execution of a ceramics project under the direction of a major professor during the final semester of the senior year.

### ART 7600 Graduate Ceramics (3,6)

Prereq.: permission of instructor. May be taken for a max. of 36 sem. hrs. of credit. Students are responsible for studio fee associated with course. 6 or 12 hrs. studio each.

### Art: Digital Art

### ART 2050 Digital Art I (3)

Prereq.: majors/minors only, ART 1008 or ART 1011. 2 hrs. lecture/2 hrs. studio. Students are responsible for studio fee associated with course. Introduction to digital applications in art.

### ART 2210 Creative Coding (3)

*Prereq.: ART 2050 and permission of instructor. 6 hrs. studio.* An introduction to computer programming for creative applications focusing on languages useful for web development.

### ART 2220 Moving Image (3)

*Prereq.: ART 2050 and permission of instructor. 6 hrs. studio.* Introduction to digital video production and editing systems; concepts will include basic compositing and motion graphics.

### ART 2230 Virtual Space (3)

Prereq.: ART 2050 and permission of instructor. Students are responsible for studio fee associated with course. 6 hrs. studio. Introduction to modeling and animation using threedimensional objects and spaces in a virtual environment.

# ART 2551 Typography for Visual Communications (3)

*Prereq.: consent of instructor and ART 1011. Students are responsible for studio fee associated with course. 2 hrs. lecture; 2 hrs. lab.* Historical overview of type and letter forms; introduction to professional typography in print and digital environments; primary focus will be applications to contemporary communications.

### ART 4059 Digital Media Capstone (3)

Prereq.: at least 15 hours credit towards the Digital Media-Arts minor. Credit will not be given for both EE 4859 and ART 4059. 2 hrs. lecture, 2 hrs. lab. Culminating capstone project experience requiring interdisciplinary teams to prototype a digital media work or application.

### ART 4220 Advanced Moving Image (3)

Prereq.: ART 2220, ART 2230 and permission of instructor. May be taken for a max. of 6 sem. hrs. of credit. 6 hrs. studio. Exploration of advanced topics in video through workshops, screenings, and selected readings on time based media; topics will also include intermediate compositing and motion graphics.

### ART 4230 Virtual Space and Motion (3)

Prereq.: ART 2220, ART 2230 and permission of instructor. May be taken for a max. of 6 sem. hrs. of credit. 6 hrs. studio. Investigation of advanced techniques and issues in the creation of virtual narrative and animation in three-dimensional space.

### ART 4240 Topics in Digital Art (3)

Prereq.: consent of instructor. May be taken for a max. of 12 sem. hrs. of credit.

*6 hrs. studio.* Studio work in a predetermined area of specialization. Emphasis will be placed on an area of research from a particular faculty member or visiting practitioner.

### ART 4270 Digital Art Studio (3)

*Prereq.: Permission of instructor. 6 hrs. studio.* Advanced studio focused on the development of a large scale digital media project.

#### **ART 4280 Digital Art Practicum (3)**

Prereq.: completion of all 2000-level digital art courses and consent of instructor based on review of student's portfolio. May be taken for a max. of 9 sem. hrs. of credit. An internship or supervised learning experience at a digital art related firm or agency.

### ART 4290 Digital Art Synthesis (3)

*Prereq.: consent of instructor. May be taken for a max. of 6 sem. hrs. of credit. 6 hrs. studio.* Advanced studio focused on the completion and presentation of a large scale digital media project.

### ART 4550 Digital Imaging for Visual Communications (3)

Prereq.: consent of instructor and ART 2551 or equivalent. Students are responsible for studio fee associated with course. 2 hrs. lecture; 2 hrs. lab. Basic exploration of digital photographic technology and its application in communications; topics include: scanning, image processing and manipulation, digital filtering, and imaging peripherals; emphasis on emerging technology and preparing images for multimedia applications.

### ART 7250 Digital Art Praxis (3)

*Prereq.: consent of instructor. May be taken for a max. of 24 sem. hrs. of credit. 6 hrs. studio.* Collaborative research, development, and implementation of experimental digital media project.

### ART 7255 Digital Art Seminar (3)

Prereq.: consent of instructor. May be taken for a max. of 21 sem. hrs. of credit. Creative and theoretical project critique, discussion of contemporary issues and research-based investigations in digital media.

### **Art: General Courses**

#### ART 1001 Introduction to Fine Arts (3)

[LCCN: CART 1023, Introduction to Visual Arts] This is a General Education course. Fundamental problems and concepts of art in the fields of design, sculpture, graphics, painting and ceramics, as related to home, community, religion, commerce and industry.

## ART 1008 Introduction to Two-Dimensional Composition (3)

[LCCN: CART 1113, Art Structure/2-D Design] *Credit will not be given for both this course and ART 1011. 6 hrs. studio.* An introduction to two-dimensional art and design practices using a variety of materials and techniques.

# ART 1009 Introduction to Three-Dimensional Art (3)

[LCCN: CART 1123, 3-D Design] *Credit will not be given for both this course and ART 1012. 6 hrs. studio.* Introduction to fundamental concepts of three-dimensional art; projects will explore line, plane, spatial organization, surface and volume using a variety of materials and techniques.

### ART 1010 Introduction to Drawing (3)

[LCCN: CART 2203, Beginning Drawing] *Credit will not be given for both this course and ART 1847. 6 hrs. lab.* Drawing from observation and invented images; various drawing materials, methods and subjects are explored as a mean to develop perceptual ability and descriptive drawing skills; drawing concepts including composition, line, perspective, shape, space and value.

### ART 1011 Two-Dimensional Design (3)

*Prereq.: majors and interior design majors only. 4 hrs. lab; 1 hr. lecture.* Studio projects in visual literacy; fundamentals of the structure of two-dimensional works of art; principles of organization and elements of art; role of the visual arts in society.

### ART 1012 Three-Dimensional Design (3)

Prereq.: majors only. Credit will not be given for both this course and ART 1009. Students are responsible for studio fee associated with course. 6 hrs. studio. Introduction to the fundamental concepts of three-dimensional art. Projects will explore line, plane, spatial organization, surface and volume; using a variety of materials and techniques.

### ART 1013 Studio Art Abroad (3)

*6 hrs. studio.* Studio art fundamentals within the specific medium of faculty members participating in Academic Programs Abroad.

### ART 2055 Digital Art II (3)

Prereq.: ART 2050 or permission of instructor. Students are responsible for studio fee associated with course. 2 hrs. lecture; 2 hrs. lab. Introductory work in digital animation and multimedia applications.

### ART 4020 Special Topics in Studio (3)

Prereq.: permission of instructor. May be taken for a max. of 6 hrs. of credit when topics vary. 6 hrs. studio. Directed studies with a visiting artist.

### ART 4030 Independent Study in Studio Art (3)

*Prereq.: permission of instructor. 6 hrs. lab.* Proposal and execution of an individual creative research project under the direction of a studio art faculty member.

### ART 4050 Digital Art III (3)

Prereq.: ART 2055 or equivalent. Primarily for students majoring in art. 6 hrs. studio. Students are responsible for studio fee associated with course. Intermediate work in digital animation.

### ART 4055 Digital Art IV (3)

Prereq.: ART 4050 or equivalent and permission of instructor.

*Primarily for students majoring in art. 6 hrs. studio.* Advanced work in digital imaging, video and animation.

### ART 4080 Performance Art (3)

May be repeated for a max. of 6 sem. hrs. of credit. 6 hrs. studio. Multi-disciplinary "live" art studio problems utilizing a diverse range of media such as drawing and painting, sound and movement and poetry; lectures and discussions on the history of performance art.

### ART 7020 Special Topics Graduate Studio (3)

*Prereq.: Permission of instructor. 6 hrs. studio.* Individual creative research in a predetermined area of specialization.

### ART 7030 Independent Study Graduate Studio (3)

*Prereq.: Permission of Instructor. May be taken for a max. of 6 semester hours of credit. 6 hrs. studio* Proposal and execution of an individual creative research project under the direction of a studio art faculty member.

### **ART 7040 Graduate Teaching Seminar (3)**

*Prereq.: Permission of instructor. 6 hrs. studio.* Emphasizes the connection between pedagogical theory and practice; development of course materials for teaching art foundations.

### ART 7042 Visiting Artist Seminar (3)

*May be taken for a max. of 9 hrs. of credit.* Seminar with visiting artist: contemporary art, criticism, individual and group projects.

### ART 8000 Thesis Research (1-12 per sem.) "S"/"U"grading.

### **Art: Graphic Design**

#### ART 1551 Basic Design (3)

*Prereq.: majors/minors only, ART 1008 or ART 1011. 6 hrs. studio.* Basic design projects that investigate form and the delineation of space within a two-dimensional field; emphasis on hand skills and traditional design media.

#### ART 2544 Letter Forms (3)

An honors course, ART 2545 is also available. Prereq.: ART 1011 and permission of instructor. Credit will not be given for this course and ART 2545. 6 hrs. studio. Drawn letter form studies; traditional and contemporary variations.

#### ART 2545 Honors: Letter Forms (3)

Same as ART 2544, with special emphasis for qualified Honors students. Prereq.: ART 1011 and permission of instructor. Credit will not be given for this course and ART 2544. 6 hrs. studio.

#### ART 2552 Color Design (3)

[LCCN: CART 2303, Color Theory] *Prereq.: ART 1011* and permission of instructor. 6 hrs. studio. Color as a functional design element of perception and visual communication.

### ART 2554 Graphic Design I (3)

An honors course, ART 2555, is also available. Prereq.: ART 1011 and permission of instructor. Credit will not be given for this course and ART 2555. 6 hrs. studio. Professional procedures for solving design problems from first ideas through finished presentations; emphasis on the integration of letter forms and graphics.

### ART 2555 Honors: Graphic Design I (3)

Same as ART 2554, with special emphasis for qualified Honors students. Prereq.: ART 1011 and permission of instructor. Credit will not be given for this course and ART 2554. 6 hrs. studio.

### **ART 2564 Graphic Abstraction (3)**

*Prereq.: ART 1011 and permission of instructor. 6 hrs. studio.* Simplification of pictorial images as graphic elements.

### **ART 4514 Experimental Design (3)**

Prereq.: consent of instructor based on review of student's portfolio. May be taken for a max. of 9 sem. hrs. of credit. 6 hrs. studio. Advanced experimental work in a predetermined area of graphic design.

### **ART 4526 Prepress Production Techniques (3)**

*Prereq.: consent of instructor. 6 hrs. studio.* Studio techniques related to production problems in the graphic design profession; typesetting methods; primary printing processes, mechanical and digital systems.

### ART 4527 Applied Typography (3)

*Prereq.: consent of instructor. 6 hrs. studio.* Developing and understanding typographic skills through functional and aesthetic use of type and its application within the digital environment.

### ART 4541 Special Studies in Graphic Design (3)

Prereq.: consent of instructor based on review of student's portfolio. May be taken for a max. of 9 sem. hrs. of credit. 6 hrs. studio. Advanced work in a predetermined area of specialization.

### ART 4551 Graphic Design II (3)

*Prereq.: consent of instructor. 6 hrs. studio.* Problems in design related to the professional design field; methods of reproduction, exhibition techniques and digital applications.

#### ART 4553 Digital Imaging Techniques (3)

Prereq.: consent of instructor. May be taken for a max. of 6 sem. hrs. of credit. Students are responsible for studio fee associated with course. 6 hrs. studio. Digital imaging technology and its application in art and design areas; scanning, image processing, manipulation, digital filtering and imaging peripherals; emphasis on digital imaging aesthetics, emerging technology and preparing images for printed and multimedia applications.

### ART 4555 Graphic Design III (3)

*Prereq.: consent of instructor. 6 hrs. studio.* Principles of visual communication through graphic design; problems in design theory and application.

## ART 4560 Interactive Media for Visual Communications (3)

Prereq.: consent of instructor and ART 4550 or equivalent. Students are responsible for studio fee associated with course. 2 hrs. lecture; 2 hrs. lab. Basic application of interactive digital technology: design and application of Internet-based communications, hypermedia language, virtual reality, sound and visual synchronization, communications standards, emerging technologies and multimedia; special focus on the study and application of interactive multimedia theory.

### ART 4561 Survey of Graphic Design (3)

*Prereq.: consent of instructor.* Overview of graphic design, covering its development from its inception to the present; its relationship to other arts; and the cultural influences and technological advances that have shaped its present role in the field of visual communications.

### ART 4564 Senior Graphic Design (3)

Prereq.: consent of instructor. May not be taken concurrently with ART 4555. This course is not offered during the summer term. 6 hrs. studio. Design projects investigating problems of visual communication; individual and group projects with professional-level presentations.

### ART 4567 Interactive Multimedia Design (3)

Prereq.: consent of instructor. May be taken for a max. of 6 hrs. of credit. Students are responsible for studio fee associated with course. 6 hrs. studio. Application of interactive computer graphics technology for art and design; design and application of CD-ROM, video disks, Internet-based communication, hypermedia language, virtual reality, sound and visual synchronization, communication standards, emerging technologies and multimedia; emphasis on study and application of interactive multimedia design theory.

### ART 4574 Graphic Design Synthesis (3)

Prereq.: consent of instructor based on review of student's portfolio. May be taken for a max. of 6 sem. hrs. of credit. 6 hrs. studio. Project or internship approved by graphic design faculty committee.

### ART 7500 Graduate Graphic Design (3,6)

Prereq.: permission of instructor. May be taken for a max. of 36 sem. hrs. of credit. Registration for all multiple-credit courses taken for over three credits in a given semester will require the prior permission of the instructor. 6 or 12 hrs. studio each.

### ART 7553 Graduate Research in Design (3)

Prereq.: consent of instructor. 6 hrs. studio.

### ART 7554 Graduate Research in Design (3)

Prereq.: consent of instructor. 6 hrs. studio.

### ART 7556 Graduate Research in Design (3)

Prereq.: consent of instructor. 6 hrs. studio.

### Art: Painting and Drawing

### ART 1847 Drawing and Composition (3)

Prereq.: majors and Interior Design majors or permission of instructor. Credit will not be given for both this course and ART 1010. 6 hrs. studio. Basic principles of observation; emphasis on graphic analysis and delineation of spatial structure.

### ART 1848 Beginning Figure Drawing (3)

[LCCN: CART 2213, Figure Drawing] *Prereq.: ART* 1010 or ART 1847 or permission of instructor. Students are responsible for studio fee associated with course. 6 hrs. studio. Studies from the live model; introduction of graphic representation, structure and form.

### ART 1849 Introduction to Painting (3)

*Prereq.: permission of instructor. 6 hrs. studio.* Basic studio practice and theory in painting; traditional and modern materials and terminology; value and color experiences involving simple forms and space.

### ART 2800 Honors: Painting II (3)

Same as ART 2881, with special emphasis for qualified Honors students. Prereq.: ART 1849 or permission of instructor. Credit will not be given for this course and ART 2881. 6 hrs. studio.

### ART 2879 Figure Drawing II (3)

Prereq.: majors/minors only, ART 1848. Students are responsible for studio fee associated with course. 6 hrs. studio. Continuing studies in life drawing.

### ART 2881 Painting II (3)

An honors course, ART 2800 is also available. Prereq.: ART 1849 or permission of instructor. Credit will not be given for this course and ART 2800. 6 hrs. studio. Studio problems in painting directed toward conceptual attitudes, analysis of structure and color in composition; individual criticism, class discussion.

#### ART 2882 Abstract Painting (3)

*Prereq.: ART 1849 or permission of instructor. 6 hrs. studio.* Studio approaches to abstraction; individual criticism, class discussion.

### ART 2883 Water Media Painting (3)

*Prereq.: ART 1847 or ART 1010 or permission of instructor. 6 hrs. studio.* Objects and landscape; composition in water-soluble media on paper.

### **ART 4800 Senior Project Painting (3)**

*Prereq.: majors only, ART 4881 and ART 4889. 6 hrs. studio.* Proposal and execution of a painting project under the direction of a major professor.

## ART 4841 Special Studies in Painting and Drawing (3)

Prereq.: majors/minors only, consent of instructor based on review of student's portfolio. May be taken for a max. of 9 sem. hrs. of credit. Registration for all multiple-credit courses taken for over three credits in a given semester will require the prior permission of the instructor. 6 hrs. of studio. Advanced studio work in a predetermined area of specialization.

### ART 4880 Figure Painting (3)

Prereq.: majors/minors only, ART 2881. May be taken for a max. of 9 sem. hrs. of credit. Students are responsible for studio fee associated with course. 6 hrs. studio. Studies from the life model.

### ART 4881 Painting III (3)

Prereq.: majors/minors only, ART 2881. May be taken for a max. of 9 sem. hrs. of credit. 6 hrs. studio. Contemporary concepts in painting; individual criticism, class discussion.

### ART 4882 Advanced Water Media Painting (3)

*Prereq.: ART 2883. May be taken for a max. of 12 sem. hrs. of credit. 6 hrs. studio.* Advanced studio work in water-soluble media on paper.

### ART 4884 Painting IV (3)

Prereq.: majors/minors only, ART 4881. May be taken for a max. of 6 sem. hrs. of credit. 6 hrs. studio. Research into advanced visual schema through self-initiated studio problems.

### ART 4886 Landscape Painting (3)

*Prereq.: majors/minors only, ART 2881. 6 hrs. studio.* Onlocation and studio development of the landscape.

### ART 4887 Advanced Figure Drawing III (3)

Prereq.: majors/minors only, ART 2879 or equivalent. May be taken for a max. of 9 sem. hrs. of credit. Students are responsible for studio fee associated with course. 6 hrs. studio. Study of the human figure using various media.

### ART 4889 Advanced Drawing Workshop (3)

Prereq.: 9 sem. hrs. of drawing or permission of instructor. May be taken for a max. of 12 sem. hrs. of credit. 6 hrs. studio. Directed studies for the advanced student.

### ART 7800 Graduate Painting (3,6)

Prereq.: permission of instructor. May be taken for a max. of 36 sem. hrs. of credit. Registration for all multiple-credit courses taken for over three credits in a given semester will require the prior permission of the instructor. 6 or 12 hrs.

### ART 7881 Reading Seminar (3)

Prereq.: students currently enrolled in the graduate painting program. Pass/fail grading. May be taken for a max. of 9 sem. hrs. of credit when topics vary. 3 hrs. seminar. Readings and discussion of formal and conceptual issues in the visual arts.

### Art: Photography

### ART 2995 Basic Photography (3)

Prereq.: majors/minors only, ART 1008 or ART 1011. Students are responsible for studio fee associated with course. 6 hrs. studio. Basic concepts and techniques of black and white photography; emphasis on photography as a visual art.

### ART 2996 Intermediate Photography (3)

An honors course, ART 2997, is also available. Prereq.: ART 2995 and permission of instructor. Credit will not be given for this course and ART 2997. Students are responsible for studio fee associated with course. 6 hrs. studio. Continued investigation of basic photographic principles, utilizing specific subject areas drawn from major themes in visual art.

### ART 2997 Honors: Intermediate Photography (3)

Same as ART 2996, with special emphasis for qualified Honors students. Prereq.: ART 2995 and permission of instructor. Credit will not be given for this course and ART 2996. 6 hrs. studio.

### ART 3994 Advanced Photography (3)

Prereq.: ART 2996 and permission of instructor. Students are responsible for studio fee associated with course. 6 hrs. studio. Technical investigation of contemporary materials; critical testing of equipment, films and printing papers; emphasis on process control as an expressive tool.

### ART 3996 Digital Color Photography I (3)

Prereq.: ART 2996 and permission of instructor. Students are responsible for studio fee associated with course. 6 hrs. studio. Introduction to color theory, color perception, and contemporary digital color printing materials and tools.

### ART 4941 Special Studies in Photography (3)

Prereq.: ART 3994 or ART 3996 and permission of instructor. May be taken for a max. of 12 sem. hrs. of credit. Students are responsible for studio fee associated with course. 6 hrs. studio. Individual creative research in a predetermined area of specialization.

### ART 4994 Large Format Photography (3)

Prereq.: ART 3994 and permission of instructor. Students are responsible for studio fee associated with course. 6 hrs. studio. Fundamentals of the view camera.

### ART 4996 Digital Color Photography II (3)

Prereq.: ART 3996 and permission of instructor. May be taken for a max. of 9 sem. hrs. of credit. Students are responsible for studio fee associated with course. 6 hrs. studio. Continued investigation of color photography; digital tools and printing processes.

#### **ART 4997 Alternative Photographic Processes (3)**

Prereq.: ART 3994 or ART 3996 and permission of instructor. Students are responsible for studio fee associated with course. 6 hrs. studio. Exploration of alternative photographic processes; emphasis on historical printmaking techniques.

### ART 4998 Senior Project: Photography (3)

Prereq.: permission of instructor. To be taken in the last full semester of the senior year. This course is not offered during the summer term. Students are responsible for studio fee associated with course. 6 hrs. studio. Proposal for and execution of an independent photography project under the direction of a major professor.

### ART 7900 Graduate Photography (3,6)

Prereq.: permission of instructor. May be taken for a max. of 36 sem. hrs. Registration for all multiple-credit courses taken for over three credits in a given semester will require the prior permission of the instructor. 6 or 12 hrs. of studio. Emphasis on personal vision and contemporary issues in photography.

### **Art: Printmaking**

### ART 1360 Introduction to Printmaking (3)

Prereq.: majors/minors only, ART 1011 and ART 1847. Students are responsible for studio fee associated with course. 6 hrs. studio. Basic concepts, materials and processes in printmaking.

### ART 2332 Silkscreen Printing (3)

*Prereq.: ART 1360. 6 hrs. studio.* Basic silkscreen techniques using stencils, hand-drawn and photomechanical applications and digital transparencies.

### ART 2342 Papermaking (3)

Prereq.: majors/minors only, ART 1011. Students are responsible for studio fee associated with course. 6 hrs. studio. Introduction to the art and technology of making paper by hand.

#### ART 2352 Relief Printmaking (3)

Prereq.: ART 1010 or ART 1847. May be taken for a max. of 9 hrs. of credit. Students are responsible for studio fee associated with course. 6 hrs. studio. Investigation of relief printing techniques.

### ART 2360 Intermediate Printmaking (3)

An honors course, ART 2361, is also available. Prereq.: majors/minors only, ART 1360. May be repeated for a max. of 6 sem. hrs. of credit. Credit will not be given for this course and ART 2361. Students are responsible for studio fee associated with course. 6 hrs. studio. Comprehensive investigation of printmaking concepts, materials, and techniques; emphasis on color printing.

#### ART 2361 Honors: Intermediate Printmaking (3)

Same as ART 2360, with special emphasis for qualified Honors students. Prereq.: ART 1360 and permission of instructor. May be repeated for a max. of 6 sem. hrs. of credit. Credit will not be given for this course and ART 2360. 6 hrs. studio.

### ART 2363 Intaglio (3)

*Prereq.*: ART 1360. *6 hrs. studio*. Intaglio printmaking processes, including drypoint, soft ground, line etching and aquatint methods.

### ART 2371 Lithography (3)

*Prereq.: ART 1360. May be repeated for a max. of 6 sem. hrs. of credit. 6 hrs. studio.* Planagraphic processes in lithography emphasizing drawing with crayon, wash and transfer methods.

### ART 2381 Book Arts (3)

Prereq.: ART 1360 and permission of instructor. Students are responsible for studio fee associated with course. 6 hrs. studio. Basic theory, design and production in the book arts.

### ART 2392 Digital Printmaking (3)

Prereq.: majors/minors only, ART 2360. May be taken for a max. of 6 sem. hrs. of credit. Students are responsible for studio fee associated with course. 6 hrs. studio. Exploration of personal imagery by means of digital and photomechanical application for contemporary printmaking.

### ART 4300 Senior Project: Printmaking (3)

Prereq.: majors only, 9 hrs. of 4000-level printmaking courses and senior status. May be taken for a max. of 6 hrs. of credit. This course is not offered during the summer term. Students are responsible for studio fee associated with course. 6 hrs. studio. Proposal and execution of a printmaking project under the direction of a major professor.

### ART 4360 Advanced Printmaking (3)

*Prereq.: ART 2360.* 

May be taken for a max. of 9 sem. hrs. of credit. Students are responsible for studio fee associated with course. 6 hrs. studio. Advanced concepts, materials and processes in printmaking with a focus on the development of individual ideas and expression.

### ART 4366 Special Studies in Printmaking (3,6)

Prereq.: consent of instructor. May be taken for a max. of 12 sem. hrs. of credit. Students are responsible for studio fee associated with course. To be taken in the last semester of the senior year. Registration for all multiple-credit courses taken for over three credits in a given semester will require the prior permission of the instructor. 6 or 12 hrs. studio. Individual creative research in a predetermined area of specialization.

### ART 4380 Monotype and Monoprint (3)

Prereq.: ART 1847 and ART 1360 or permission of instructor. May be taken for a max. of 6 sem. hrs. of credit. 6 hrs. studio. Creative image development using monotype and monoprint processes, with a focus on making unique prints.

### ART 4381 Advanced Book Arts (3 or 6)

Prereq.: ART 2381 or consent of instructor. May be taken for a max. of 6 sem. hrs. of credit. Students are responsible for studio fee associated with course. 6 or 12 hrs. studio. Advanced exploration, design and production in the book arts; emphasis on self-initiated book art problems.

### ART 4383 Letterpress Printmaking (3)

Prereq.: ART 2381 or permission of instructor. May be taken for a max. 6 sem. hrs of credit. 6 hrs. studio. Fundamental concepts, design and processes using digital and traditional letterpress printing technologies.

### ART 4390 Large Format Printmaking (3)

Prereq.: ART 4360 or permission of instructor. May be repeated for a max. of 6 sem. hrs. of credit. 6 hrs. studio. Advanced work in printmaking emphasizing multiple color and mixed media applications for creating large-scale prints.

### ART 4391 Digital & Alternative Print Media (3)

*Prereq.: ART 2392 and ART 4360. May be taken for a max. of 6 sem. hrs. credit. 6 hrs. studio.* Advanced investigation of digital, photomechanical and alternative processes in printmaking.

### ART 7300 Graduate Printmaking (3,6)

Prereq.: permission of instructor. May be taken for a max. of 36 sem. hrs. of credit. Students are responsible for studio fee associated with course. Registration for all multiplecredit courses taken for over three credits in a given semester will require the prior permission of the instructor. 6 or 12 hrs.

### Art: Sculpture

#### ART 1762 Introduction to Sculpture (3)

Prereq.: ART 1009 or ART 1012 or permission of instructor. Students are responsible for studio fee associated with course. 6 hrs. studio. Introduction to a variety of materials and techniques for generating sculptural form.

### ART 2761 Intermediate Sculpture (3)

Prereq.: ART 1762 and ART 1661 or ART 1662, or permission of instructor. May be taken for a max. of 9 sem. hrs. of credit. Students are responsible for studio fee associated with course. 6 hrs. studio. Studies in sculpture involving various materials and methods. May include metal fabrication, metal casting and mixed media.

### ART 4741 Special Studies in Sculpture (3,6)

Prereq.: consent of instructor based on review of student's portfolio. May be taken for a max. of 9 sem. hrs. of credit. Students are responsible for studio fee associated with course. Registration for all multiple-credit courses taken for over three credits in a given semester will require the prior permission of the instructor. 6 or 12 hrs. studio. Advanced studio work in predetermined area of specialization.

### ART 4761 Advanced Sculpture (3)

Prereq.: ART 2761 and credit or registration in ART 2661, or permission of instructor. May be taken for a max. of 9 sem. hrs. of credit. Students are responsible for studio fee associated with course. 6 hrs. studio. Studies with various materials and methods, course content may include kinetics, installation, and mixed media.

### ART 4762 Senior Project: Sculpture (3)

Prereq.: 6 sem. hrs. of credit from ART 4761. Students are responsible for studio fee associated with course. To be taken in the last semester of the senior year. 6 hrs. studio. Independent study requiring the proposal and execution of a sculpture project, under the direction of a major professor.

### ART 7700 Graduate Sculpture (3,6)

Prereq.: permission of instructor. May be taken for a max. of 36 sem. hrs. of credit. Students are responsible for studio fee associated with course. Registration for all multiplecredit courses taken for over three credits in a given semester will require the prior permission of the instructor. 6 or 12 hrs.

### Art and Design

## DART 7001 Theory and Processes of Cultural Preservation (3)

May be taken for a maximum of 6 credit hours. 3 hrs seminar. Research and discussion seminar in which subject areas in cultural preservation are represented through presentations together with readings and emphasis on the evolution of theories and current "best practices" in each area.

### DART 7003 Digital Culture (3)

*Prereq.: Permission of department.* Provides a common, theoretical ground for the exploration of Cultural Preservation with respect to digital culture, and reviews key digital approaches, tools, representational techniques, and resources for advancing scholarship in Cultural Preservation through case studies exploring tactics and strategies for creating and deploying computational resources in research.

## DART 7004 Introduction to Material Culture Studies (3)

*Prereq.: consent of instructor.* Research and discussion seminar on the study of materiality as an integral dimension of culture through focus on the social and cultural roles of physical things, the built environment and cultural landscape.

### DART 7020 Special Topics (3)

*Prereq.: consent of instructor. May be taken for a max. of 6 sem. hrs. of credit with consent of graduate advisor.* Investigation of areas of interest not covered in other departmental courses.

### Art History

### ARTH 1440 Historical Survey of the Arts (3)

[LCCN: CART 2103, Art History I] This is a General Education course. Prehistoric, Near-Eastern, Greek, Roman and medieval art.

### ARTH 1441 Historical Survey of the Arts (3)

[LCCN: CART 2113, Art History II] This is a General Education course. Renaissance to modern art.

## ARTH 2401 Art of the Ancient Near East and Egypt (3)

This is a General Education course. Development of art and architecture in the ancient Near East and Egypt over three millennia; influences of one culture on another and subsequent contributions to Western art.

#### ARTH 2402 Classical Art and Archaeology (3)

This is a General Education course. Survey of the art and archaeology of the ancient Greek and Roman worlds, ca. 1000 BCE-300 CE.

#### ARTH 2411 Survey of Asian Art (3)

This is a General Education course. The arts of China, India and Japan in relation to religious and philosophical beliefs that affected their production.

### ARTH 2469 Italian Renaissance Art (3)

Italian painting, sculpture and architecture from 1400 to 1600.

## ARTH 2470 Survey of Modern to Contemporary Art (3)

This is a General Education course. Survey of major art movements from the 1880s to the present day.

### **ARTH 2480 Introduction to Museum Studies (3)**

Introduction to art and history museums, their missions and functions; practical aspects and philosophical issues related to museums.

#### ARTH 4401 History of Prints (3)

History of prints from the 15th century to the present.

### ARTH 4404 The Art of Rome (3)

Development of architecture, sculpture and painting from Rome's early beginnings (600-200 B.C.) to the end of the 4th century.

#### ARTH 4405 Early Christian and Byzantine Art (3)

Painting, sculpture and architecture of the Christian era through 12th century Byzantium.

#### ARTH 4406 Romanesque Art (3)

Architecture, sculpture, manuscripts and painting from the 9th through the 12th centuries in France, Germany and England.

### ARTH 4409 Early Greek Art (3)

Greek art to the time of the Persian Wars.

### ARTH 4410 Later Greek Art (3)

Greek art from the time of Themistocles to the age of Augustus.

### ARTH 4412 Gothic Art (3)

Architecture, sculpture and painting of Northern Europe from 1150 to 1450.

### ARTH 4413 Early Netherlandish and German Painting (3)

Painting in the Netherlands and Germany in the 15th and 16th century.

### ARTH 4420 Studies in Art History (3)

*May be repeated for credit when topics vary*. Advanced work in a predetermined area of specialization.

### ARTH 4422 History of Modern Design (3)

Aesthetic theory and stylistic evolution of decorative arts from mid-19th century to the present; emphasis on crafts, architectural decoration, furniture, interior design and industrial design; Victorian period, arts and crafts movement, art nouveau, Bauhaus and international style.

### ARTH 4423 Early Renaissance Painting in Italy (3)

The origins and early development of Italian Renaissance painting in Florence and Siena.

## ARTH 4424 High Renaissance and Mannerist Painting in Italy (3)

The climax and aftermath of Italian Renaissance painting in Florence, Rome and Venice.

### **ARTH 4427 Northern Baroque Painting (3)**

Dutch, Flemish and French painting of the 17th century.

### ARTH 4429 Southern Baroque Art (3)

Painting, sculpture and architecture of the 17th century in Italy and Spain.

#### ARTH 4433 18th Century European Art (3)

European art from the age of absolutism to the beginning of the Napoleonic era, including Rococo art, the influence of Enlightenment thought, the rediscovery of classical antiquity, Neoclassicism and the impact of the French Revolution on the visual arts.

### ARTH 4440 African Art (3)

History of the traditional arts and architecture of Sub-Saharan Africa, emphasizing geographical origins, religious context, social practices, and aesthetic choices that defined the creation of the objects and monuments under investigation.

### **ARTH 4441 Chinese Painting (3)**

History of Chinese painting from prehistoric times through the 20th century.

#### ARTH 4442 Japanese Art (3)

History of Japanese painting, sculpture, architecture and ceramics from prehistoric times through the early 20th century.

### ARTH 4443 Indian Art (3)

History of Indian painting, sculpture and architecture from prehistoric times through the 16th century.

#### ARTH 4449 Islamic Art and Architecture (3)

Architecture, painting, and sculpture in regions associated with the emergence and prominence of Islam as a world religion from the 7th/8th century to the present.

### ARTH 4450 19th Century European Painting (3)

History of painting in European countries from the French Revolution (1789) to 1900; emphasis on neoclassicism, romanticism, realism, impressionism, post-impressionism and symbolism.

#### ARTH 4451 Early 20th Century European Art (3)

History of painting and sculpture in European countries from 1900 to 1960; emphasis on Fauvism, Cubism, geometric abstraction, Futurism, Dada and Surrealism, German Expressionism, British figurative art, and the School of Paris.

### ARTH 4464 American Art to 1900 (3)

North American painting, architecture, and sculpture from the colonial beginnings to 1900; emphasis on painting.

#### ARTH 4466 Contemporary Art (3)

Major movements and theories in art from World War II through the present, including the wane of modernism and the rise and fall of postmodernism.

### ARTH 4467 Latin American Art (3)

Pre-Hispanic, colonial, and contemporary architecture, painting, sculpture, and related arts throughout Latin America.

### ARTH 4468 Issues in Contemporary Art (3)

Principal issues confronting contemporary artists and the sources and theories behind the issues.

## ARTH 4469 Art of the American South: 1560-1861 (3)

History of architecture, painting, sculpture and decorative arts made in the states below the Mason-Dixon Line.

### ARTH 4470 History of Photography (3)

History of photography from its inception in the 1830s until the present; technological development of the medium and its inherent aesthetics; interrelationships between photography and more traditional media.

#### ARTH 4480 Video Art and Theory (3)

Sources and origins of artists' video from the late 1960s to the present day; consideration of theoretical, political and technological aspects; survey of single-channel, projected, installation and Internet formats for video art display.

## ARTH 4482 History of Electronic and Digital Art (3)

Survey of art and technology focusing on the development of computer art and digital, interactive, and network-based art forms from the 1950s to the present.

### ARTH 4484 New Media Art Theory (3)

A reading intensive course that introduces students to issues and theories of new media art.

### ARTH 4490 Independent Study in Art History (1-3)

*Prereq.: consent of instructor. May be taken for a max. of 6 hrs. of credit when topics vary.* 

### **ARTH 4499 Undergraduate Seminar (3)**

Prereq.: ARTH 1440, ARTH 1441 and any four additional art history courses; only open to art history majors of junior and senior standing. Intensive reading, writing and classroom discussion; introduction to art-historical research and methodologies.

### ARTH 7400 Art Theory and Criticism (3)

Critics; building of art collections from ancient to modern times.

## ARTH 7410 Colloquium in Art Historical Methods (1)

*Pass-fail grading*. An introduction to the historical development of the discipline of art history and art historical methodology.

#### ARTH 7420 Special Topics in Art History (3)

Prereq.: graduate standing in art or consent of instructor. May be taken for a max. of 6 hrs. of credit when topics vary. Advanced topics in art history.

## ARTH 7441 Graduate Research Seminar in History of Art (3)

May be taken for a max. of 6 hrs. of credit when topics vary; no more than 3 hrs. per semester.

# ARTH 7442 Graduate Research Seminar in History of Art (3)

May be taken for a max. of 6 hrs. of credit when topics vary; no more than 3 hrs. per semester.

#### ARTH 7490 Independent Study in Art History (1-3)

*Prereq.: consent of instructor. May be taken for a max. of 6 hrs. of credit when topics vary.* 

### ARTH 8000 Thesis Research (1-12 per sem.)

"S"/"U" grading. Thesis preparation under the supervision of a graduate faculty member serving as the student's major professor.

### **Athletic Training**

#### ATRN 2000 Emergency Medical Response (3)

Credit will not be given for this course and KIN 2601. Prereq.: Athletic Training majors and Coach Education minors only or permission of instructor. Role and responsibilities of the athletic trainer and other medical professionals in pre-hospital trauma care, components of EMS systems, medical/legal considerations, and communications in advanced and basic life support settings. Students will complete Basic Life Support for Healthcare Providers and learn base skills in emergency trauma response.

### ATRN 2001 Foundations of Patient Clinical Assessment (3)

Prereq.: ATRN 2000. Athletic Training majors and Fitness Studies concentration students only or permission of instructor. Athletic Training majors must be accepted to professional (clinical) phase of program to enroll in this course. Designed to give the entry-level athletic training student in-depth instruction in appropriate techniques of soliciting, organizing, and interpreting patient-specific medical information from patients of all ages, cultures, socioeconomic backgrounds and abilities; patient observation; surface topography/palpation skills; and other basic evaluation techniques.

## ATRN 2200 Athletic Training Clinical Practice and Research I (2)

Prereq.: ATRN 2000 and concurrent registration in ATRN 2001. Athletic Training majors only. Athletic Training majors must be accepted to professional (clinical) phase of program to enroll in this course.

*1 hr. lecture; 1 hr. clinical.* Understanding, demonstrating, and applying the broad base of knowledge/skills/abilities required of the athletic trainer in managing patient problems in assigned clinical rotations under direct preceptor supervision. Concepts of Evidence-Based Medicine (EBM) and areas and types of research in athletic training.

## ATRN 2201 Athletic Training Clinical Practice and Research II (2)

Prereq.: ATRN 2200 and credit or registration in ATRN 2505. Athletic Training majors only or permission of instructor. Students must earn a grade of "B" or better in ATRN 2200 and receive a favorable program progression evaluation to enroll in this course. 1 hr. lecture; 1 hr. clinical. Understanding, demonstrating, and applying the broad base of knowledge/skills/abilities required of the athletic trainer in managing patient problems in assigned clinical rotations under direct preceptor supervision. Conducting a critical appraisal of medical literature and healthcare informatics using the Evidence-Based Medicine (EBM) model.

## ATRN 2222 Athletic Training Clinical Immersion (0)

Prereq.: Athletic Training majors only. Athletic Training majors must be accepted to professional (clinical) phase of program to enroll in this course. Coreq.: ATRN 2200, ATRN 2201, ATRN 3200, ATRN 3201, ATRN 4200, or ATRN 4201. This course can be taken a maximum of 3 times. Under direct preceptor supervision the athletic training student will be provided the opportunity to understand, demonstrate, and apply the broad base of knowledge/skills/abilities required of the athletic trainer in managing patient problems during intensive clinical rotations during a non-traditional semester.

# ATRN 2300 Protective Taping/Bracing and Equipment Fitting (3)

Prereq.: ATRN 2000 and concurrent registration in ATRN 2200. Athletic Training majors only. Athletic Training majors must be accepted to professional (clinical) phase of program to enroll in this course. Basic principles associated with the design, construction, fit, maintenance, and reconditioning of protective equipment, including the rules and regulations established by the associations that govern its use; fit standard protective equipment following manufacturers' guidelines; apply preventive taping and wrapping procedures, splints, braces, and other special protective devices.

# ATRN 2505 Orthopedic Injury Evaluation Techniques I (3)

Prereq.: ATRN 2001 and ATRN 2200. Athletic Training majors only. Athletic Training majors must have earned a grade of "B" or better in ATRN 2001 and ATRN 2200 and received a favorable program progression evaluation to enroll in this course. Specialized course in the initial onfield and clinical evaluation of orthopedic injuries and conditions of the lower extremities and the spine, including emergency care procedures, signs/symptoms, and treatment of various injuries/conditions.

### ATRN 2507 Physical Therapeutic Modalities (3)

Prereq.: ATRN 2001 and ATRN 2200. Athletic Training majors only or permission of instructor. Athletic Training majors must have earned a "B" or better in ATRN 2001 and ATRN 2200 amd received a favorable program progression evaluation to enroll in this course. Operational physics, physiological action, and clinical rationale/decision-making of various therapeutic agents used in physical rehabilitation settings. Application of various therapeutic agents such as light, sound, heat, cold, traction, and compression addressed using the evidence-based problem solving approach.

### ATRN 2600 Athletic Training Clinical Skills I (3)

Prereq.: ATRN 2000 and credit or registration in ATRN 2200. Athletic Training majors only. Athletic Training majors must be accepted to professional (clinical) phase of program to enroll in this course. 2 hrs. lecture; 2 hrs. lab. Essential clinical knowledge and skills for the athletic training profession, including but not limited to, measurement of vital signs, flexibility, resistance exercises, and assisted and self-stretching techniques.

# ATRN 3200 Athletic Training Clinical Practice and Research III (2)

Prereq.: ATRN 2201. Athletic Training majors only. Students must earn a "B" or better in ATRN 2201 and receive a favorable program progression evaluation to enroll in this course. 1 hr. lecture; 1 hr. clinical. Understanding, demonstrating, and applying the broad base of knowledge/skills/abilities required of the athletic trainer in managing patient problems in assigned clinical rotations under direct preceptor supervision and applying previously acquired problem-solving skills in patient care. Understanding Evidence-Based Medicine (EBM) through developing the clinical question using PICO method; reviewing and writing literature reviews; making written and oral presentations on selected patient conditions.

# ATRN 3201 Athletic Training Clinical Practice and Research IV (2)

Prereq.: ATRN 3200. Athletic Training majors only. Students must earn a "B" or better in ATRN 3200 and receive a favorable program progression evaluation to enroll in this course. 1 hr. lecture; 1 hr. clinical. Understanding, demonstrating, and applying the broad base of knowledge/skills/abilities required of the athletic trainer in managing patient problems in assigned clinical rotations under direct preceptor supervision and applying previously acquired problem-solving skills in patient care. Evidence-Based Medicine (EBM) research design; common research measures; reliability and validity; research proposal design; formulating/writing methods; making written and oral presentations on selected patient conditions.

### ATRN 3300 Clinical Pharmacology (3)

Prereq.: credit or registration in KIN 2500. Athletic Training majors and Fitness Studies concentration students only or permission of instructor. Credit will not be given for this course and KIN 4605. Broad overview of pharmacology and nutritional supplementation with an emphasis on its application in healthcare practice. Fundamental principles of drug actions and interactions, the role of exercise in drug metabolism, clinical applications, and current issues in legal and ethical issues in drug administration.

# ATRN 3505 Orthopedic Injury Evaluation Techniques II (3)

Prereq.: ATRN 2505. Athletic Training majors only. Athletic Training majors must have earned a grade of "B" or better in ATRN 2505 and received a favorable program progression evaluation to enroll in this course. Specialized course in the initial on-field and clinical evaluation of orthopedic injuries and conditions of the upper extremities, cervical spine, head and face, including emergency care procedures, signs/symptoms, and treatment of various injuries/conditions.

### ATRN 3600 Athletic Training Clinical Skills II (3)

Prereq.: ATRN 2600. Athletic Training majors only. Athletic Training majors must have earned a grade of "B" or better in ATRN 2600 and received a favorable program progression evaluation to enroll in this course. 2 hrs. lecture; 2 hrs. lab. Acquisition, evaluation, synthesis, and application of advanced clinical skills in the prevention, clinical evaluation and diagnosis, immediate care and treatment, and rehabilitation and reconditioning of injuries and illnesses.

# ATRN 4200 Athletic Training Clinical Practice and Research V (2)

Prereq.: ATRN 3201. Athletic Training majors only. Athletic Training majors must have earned a grade of "B" or better in ATRN 3201 and received a favorable program progression evaluation to enroll in this course. 1 hr. lecture; 1 hr. clinical. Demonstrating advanced understanding, application and synthesis of broad base of knowledge/skills/abilities required of the athletic trainer in managing patient problems in assigned clinical rotations under direct preceptor supervision and applying previously acquired problem-solving skills with a focus on developing clinical decision-making and mid-level practitioner autonomy. Apply and interpret statistical techniques, analysis of variance, repeated measures design, and correlation analysis.

# ATRN 4201 Athletic Training Clinical Practice and Research VI (2)

Prereq.: ATRN 4200. Athletic Training majors only. Athletic Training majors must have earned a grade of "B" or better in ATRN 4200 and received a favorable program progression evaluation to enroll in this course. 1 hr. lecture; 1 hr. clinical. Demonstrating advanced understanding, application and synthesis of broad base of knowledge/skills/abilities required of the athletic trainer in managing patient problems in assigned clinical rotations under direct preceptor supervision and applying previously acquired problem-solving skills with a focus on developing clinical decision-making and mid-level practitioner autonomy. Student will complete the approved Evidence-Based Medicine (EBM) capstone project based upon the previously developed research proposal in ATRN 4200.

# ATRN 4400 Clinical Diagnosis and Intervention Strategies for Psychosocial Conditions (3)

Prereq.: ATRN 3201 and credit or registraion in ATRN 4200. Athletic Training majors only. Athletic Training majors must have earned a grade of "B" or better in ATRN 3201 and received a favorable program progression evaluation to enroll in this course. Credit will not given for this course and KIN 4520. Clinical diagnosis, management, and appropriate psychosocial intervention strategies and patient referral techniques specific to the role of an athletic trainer within the broader context of primary care medicine. Classification of various psychosocial conditions and the multi-axial approach to patient assessment across the lifespan.

# ATRN 4505 Assessment of General Medical Conditions (3)

Prereq.: ATRN 3505 and ATRN 3300. Athletic Training majors only. Athletic Training majors must have earned a grade of "B" or better in ATRN 3505 and ATRN 3300 and received a favorable program progression evaluation to enroll in this course. Credit will not given for this course and KIN 3608. Evaluation, clinical diagnosis, and management of general medical conditions using a systems based-approach. Incorporating pre-requisite and corequisite knowledge of pathophysiology and clinical signs/symptoms utilized in performing a patient evaluation to reach a clinical diagnosis, interpret laboratory and diagnostic results, and utilize clinical data in the management of medical problems.

### ATRN 4508 Principles of Healthcare Administration in Athletic Training (3)

Prereq.: ATRN 3201 and credit or registration in ATRN 4200. Athletic Training majors only. Athletic Training majors must have earned a grade of "B" or better in ATRN 3201 and received a favorable program progression evaluation to enroll in this course. An overview of administrative concepts and organization of healthcare facilities that provide athletic training services. Topics covered include: facility design, fiscal and human resource management, insurance and reimbursement, legal and ethical practices, and healthcare informatics.

### ATRN 4509 Therapeutic Exercise for Mobility, Function, Rehabilitation, and Performance (3)

Prereq.: ATRN 3505 and ATRN 3600. Athletic Training majors only. Athletic Training majors must have earned a grade of "B" or better in ATRN 3505 and ATRN 3600 and received a favorable program progression evaluation to enroll in this course. Evidence-based concepts, principles, clinical application, and progression of appropriate therapeutic exercise interventions of patients across the lifespan to remediate musculoskeletal and neurological dysfunction.

### ATRN 4700 Diagnostic Procedures (3)

Prereq.: ATRN 4200 and ATRN 4505. Athletic Training majors only. Athletic Training majors must have earned a grade of "B" or better in ATRN 4200 and ATRN 4505 and received a favorable program progression evaluation to enroll in this course. Selected clinical diagnostic laboratory and imaging tests and selected procedures practiced by athletic trainers. Clinical presentation, acute care, etiology, pathophysiology, clinical decision-making for selecting appropriate tests or procedures, interpretation of diagnostic test results, appropriate referral and management of medical conditions. Evidence-based research to appropriately gather, interpret, and manage objective diagnostic clinical data to manage various health problems across the lifespan.

# ATRN 7000 Emergency Medicine for the Athletic Trainer (6)

Prereq.: Master of Science in Athletic Training majors only or permission of instructor. Students must possess and provide a current certification card in Basic Life Support (BLS) upon the first day of class. 2 hr. lecture; 6 hr. lab; 1 hr. clinical. Prepares students to provide prehospital assessment and care for patients of all ages with a variety of medical conditions and traumatic injuries. upon successful completion of this course the student will be eligible to sit for the Emergency Medical Technician (Basic) licensure examination.

# ATRN 7001 Introduction to Athletic Training Clinical Practice (1)

*Prereq.: Master of Science Athletic Training majors only. 1 hr. lecture.* This course is an introduction to clinical experiences in Athletic Training. Students will learn the roles and responsibilities of the Athletic Trainer as well as the appropriate procedures that are practiced in allied health care professions.

### ATRN 7002 Protective Taping & Bracing (2)

Prereq.: Acceptance into the program and current registration in ATRN 7000 and ATRN 7001. Master of Science in Athletic Training majors only. 1 hrs. lecture; 2 hrs. lab. Select, fabricate, and/or customize prophylactic, assistive, and restrictive devices, materials, and techniques into the plan of care; including the following: durable medical equipment; orthotic devices; and taping, bracing, splinting, protective padding, and casting.

### ATRN 7100 Athletic Training Clinical Practice I (3)

*Prereq.: ATRN 7000/ATRN 7001/ATRN 7002. Master of Science Athletic Training majors only.* Under direct preceptor supervision the athletic training student will be provided the opportunity to understand, demonstrate, and apply the broad base of knowledge, skills, abilities required of the athletic trainer in managing patient problems in assigned clinical rotations. Introduction to medical documentation. Review and competency-based demonstration of patient care skills, with an emphasis on: emergency medicine; protective taping/bracing; routine clinical practice skills.

### ATRN 7101 Athletic Training Clinical Skills I (3)

Prereq.: ATRN 7000/ATRN 7001/ATRN 7002. Master of Science in Athletic Training majors only. 2 hrs. lecture; 2 hrs. lab. Essential clinical knowledge and skills for the athletic training profession, including but not limited to, measurement of vital signs, flexibility, resistance exercises, and assisted and self-stretching techniques.

# ATRN 7102 Foundations of Patient Assessment (3)

Prereq.: ATRN 7000/ATRN 7001/ATRN 7002. Master of Science in Athletic Training majors only. Designed to give the entry-level athletic training student in-depth instruction in: appropriate techniques of soliciting, organizing, and interpreting patient-specific medical information from patients of all ages, cultures, socioeconomic backgrounds and abilities; patient observation; surface topography/palpation skills; and other basic evaluation techniques.

### ATRN 7103 Lower Extremity and Spine Orthopedic Evaluation (3)

Prereq.: ATRN 7000/ATRN 7001/ATRN 7002. Master of Science Athletic Training majors only. Specialized course in the initial on-field and clinical evaluation of orthopedic injuries and conditions of the lower extremities and the spine, including emergency care procedures, signs/symptoms, and treatment of various injuries/conditions.

### ATRN 7104 Clinical Diagnostic Procedures (3)

Prereq.: ATRN 7000/ATRN 7001/ATRN 7002. Master of Science Athletic Training and Kinesiology majors only. This course presents the athletic training student with selected clinical diagnostic laboratory and imaging tests and with selected procedures practiced by athletic trainers. Clinical presentation, acute care, etiology, pathophysiology, clinical decision making for selecting appropriate tests or procedures, interpretation of diagnostic test results, appropriate referral and management of medical conditions is addressed. Students will use evidence-based research to appropriately gather, interpret, and manage objective diagnostic clinical data to manage various health problems across the lifespan.

# ATRN 7200 Athletic Training Clinical Practice II (3)

Prereq.: ATRN 7100. Master of Science Athletic Training majors only. 1 hr. lecture; 2 hr. clinical. Under direct preceptor supervision the athletic training student will be provided the opportunity to: further understand, demonstrate, and apple the broad base of knowledge/skills/abilities required of the athletic trainer in managing patient problems in assigned clinical rotations; and apply previously acquired problem-solving skills in patient care. Review and competency-based demonstration of patient care skills, with an emphasis on: orthopedic assessment of the lower extremity and spine; exercise interventions; and clinical diagnostic procedures.

### ATRN 7201 Upper Extremity, Cervical Spine, Thorax, Head Orthopedic Evaluation (3)

Prereq.: ATRN 7000/ATRN 7001/ATRN 7002. Master of Science Athletic Training majors only. Specialized course in the initial on-field and clinical evaluation of orthopedic injuries and conditions of the upper extremities, cervical spine, head and face; including emergency care procedures and sines/symptoms/treatment of various injuries/conditions.

### ATRN 7202 Therapeutic Modalities (3)

Prereq.: ATRN 7100/ATRN 7101/ATRN 7102/ATRN 7103/ATRN 7104. Master of Science Athletic Training majors only. Operational physics, physiological action, and clinical rationale/decision-making of various therapeutic agents used in physical rehabilitation settings. Application of various therapeutic agents such as light, sound, heat, cold, traction and compression will be addressed using an evidence-based problem-solving approach.

### ATRN 7203 Therapeutic Rehabilitation (3)

Prereq.: ATRN 7100/ATRN 7101/ATRN 7102/ATRN 7103/ATRN 7104. Master of Science in Athletic Training majors only. Evidence-based concepts, principles, clinical application, and progression of appropriate therapeutic exercise interventions of patients across the lifespan to remediate musculoskeletal and neurological dysfunction.

### ATRN 7204 Primary Care Medicine (3)

Prereq.: ATRN 7100/ATRN 7101/ATRN 7102/ATRN 7103/ATRN 7104. Master of Science in Athletic Training majors only. Evaluation, clinical diagnosis, and management of general medical conditions using a systems based-approach. Pre-requisite and co-requisite knowledge of pathophysiology and clinical signs/symptoms utilized in performing a patient evaluation to: reach a clinical diagnosis, interpret laboratory and diagnostic results; and utilize clinical data n the management of medical problems.

## ATRN 7300 Athletic Training Clinical Practice III (3)

Prereq.: ATRN 7200. Master of Science in Athletic Training majors only. Athletic Training majors must have met program requirements to enroll in this course. 1 hr. lecture; 2 hr. clinical. Under direct preceptor supervision the athletic training student will be provided the opportunity to understand, demonstrate, and apply the broad base of knowledge/skills/abilities required of the athletic trainer in managing patient problems during an intensive clinical rotation.

## ATRN 7400 Athletic Training Clinical Practice IV (3)

Prereq.: ATRN 7300. Master of Science Athletic Training majors only. Athletic Training majors must have met program requirements to enroll in this course. 1 hr. lecture; 2 hr. clinical. Under direct preceptor supervision the athletic training student will be provided the opportunity to: demonstrate advanced understanding, application, and synthesis of the broad base of knowledge/skills/abilities required of the athletic trainer in managing patient problems in assigned clinical rotations; and apply previously acquired problem-solving skills with a focus on developing clinical decision-making and midlevel practitioner autonomy. Review and competency-based demonstration of patient care skills, with an emphasis on orthopedic assessment of upper extremity, cervical spine, thorax, and head; therapeutic rehabilitation interventions; and primary care medicine.

# ATRN 7401 Management of Nutritional & Psychosocial Conditions (3)

*Prereq.: ATRN 7300. Master of Science Athletic Training majors only.* Clinical diagnosis, management and appropriate psychosocial intervention strategies and patient referral techniques specific to the role of an athletic trainer within the broader context of primary care medicine. Introduction to classification of various psychosocial conditions and the multi-axial approach to patient assessment across the lifespan.

### ATRN 7402 Principles of Healthcare Administration in Athletic Training (3)

*Prereq.: ATRN 7300. Master of Science Athletic Training majors only.* An overview of administrative concepts and organization of health care facilities that provide athletic training services. Topics covered include: facility design, fiscal and human resource management, insurance and reimbursement, legal and ethical practices, and healthcare informatics.

### ATRN 7403 Athletic Training Clinical Skills II (3)

*Prereq.: ATRN 7300. Master of Science Athletic Training majors only. 2 hrs. lecture; 2 hrs. lab.* Acquisition, evaluation, synthesis, and application of advanced clinical skills in the prevention, clinical evaluation and diagnosis, immediate care and treatment, and rehabilitation and reconditioning of injuries and illnesses.

# ATRN 7500 Athletic Training Clinical Practice V (3)

Prereq.: ATRN 7300. Master of Science Athletic Training majors only. Athletic Training majors must have met program requirements to enroll in this course. 1 hr. lecture; 2 hr. clinical. Under direct preceptor supervision the athletic training student will be provided the opportunity to: demonstrate advanced understanding, application, and synthesis of the broad base of knowledge/skills/abilities required of the athletic trainer in managing patient problems in assigned clinical rotations; and apply previously acquired problem-solving skills with a focus on developing clinical decision-making and midlevel practitioner autonomy. Review and competency-based demonstration of patient care skills, with an emphasis on: behavioral health conditions; healthcare administration; advanced clinical practice skills.

## ATRN 7501 Integrating Medical Research into Athletic Training (3)

Prereq.: Students have completed ATRN 7400. Master of Science Athletic Training majors only or permission of instructor. Current practices in the conduct of quantitative research, measurement, and evaluation processes applied to applied to athletic training and related healthcare professions will be examined. This course is designated as a capstone experience where students will have the opportunity to develop basic research skills based on the current evidence in sports medicine.

### Astronomy

#### ASTR 1101 The Solar System (3)

[LCCN: CAST 1103, Astronomy/The Solar System] This is a General Education course. *Prereq.: MATH 1021 or an ACT math score of at least 21.* Fundamental principles of the solar system.

### ASTR 1102 Stellar Astronomy (3)

[LCCN: CAST 1113, Astronomy/Stars & Galaxies] This is a General Education course. *Prereq.: MATH 1021 or an ACT math score of at least 21*. Fundamental principles of stellar astronomy.

### ASTR 1108 Astronomy Laboratory (1)

*Prereq.: credit or registration in ASTR 1101. 2 hrs. lab.* Visual observation of positions of celestial bodies with application to star charts and globes; visual and photographic observations will be made using telescopes; provides student with practical observing experience.

### ASTR 1109 Astronomy Laboratory (1)

*Prereq.: credit or registration in ASTR 1102. 2 hrs. lab.* Analysis of light from terrestrial and celestial sources; visual and photographic observations of stars and nebulae; training in the use of smaller telescopes and larger telescopes with multimedia technologies.

### **ASTR 1401 Planetary Astrophyics (3)**

Prereq.: Credit or registration in MATH 1550 or MATH 1551. Credit will not be give for this course and ASTR 1101. A quantitative survey of the physical and environmental properties of planets, the solar system and other planetary systems.

## ASTR 1402 The Astrophysics of Stars & Galaxies (3)

*Prereq.: Credit or registration in MATH 1550 or MATH 1551. Credit will not be given for this course and ASTR 1102.* A quantitative survey of the physical properties of stars, nebulae, galaxies, and cosmology.

### **ASTR 4221 Introductory Astrophysics (3)**

*Prereq.: PHYS 1202 or PHYS 2112 and PHYS 2113, or consent of instructor.* Sun, stars and stellar systems; results and problems of modern astrophysical research.

### ASTR 4222 Introductory Astrophysics (3)

*Prereq.:* ASTR 4221. Sun, stars and stellar systems; results and problems of modern astrophysical research.

### ASTR 4261 Modern Observational Techniques (3)

*Prereq.:* ASTR 1101, ASTR 1102 and MATH 1552. 1 hr. *lecture;* 6 hrs. lab. Modern astronomical observations and reductions; the telescope, astronomical photography, spectroscopic and photoelectric observations and reductions.

## ASTR 4750 Special Topics in Observational Astronomy (3)

*May be taken twice for credit when topics vary.* One topic scheduled each time course is offered; current topics include astronomical spectroscopy and astronomical photometry.

#### ASTR 4997 Problems in Astronomy (1-3)

*Prereq.: consent of instructor. May be taken for a max. of 3 sem. hrs. of credit.* Individual reading and theoretical and/or experimental work on advanced problems.

#### ASTR 7361 Astrophysics Laboratory (3)

Practical experience in modern observational techniques in astronomy, instruments, detectors, data analysis, and statistical methods.

#### ASTR 7741 Stellar Astrophysics (3)

*Also offered as PHYS 7741.* Application of physical principles to study of stars; spectroscopy, stellar atmospheres, stellar structure and stellar evolution.

### ASTR 7742 Stellar Astrophysics (3)

*Also offered as PHYS 7742. Prereq.: ASTR 7741* Application of physical principles to study of stars; spectroscopy, stellar atmospheres, stellar structure and stellar evolution.

### ASTR 7751 Galactic Astrophysics (3)

*Also offered as PHYS 7751.* Application of physical principles to study of galaxies; interstellar medium, galactic structure and stellar motions, galaxies and cosmology.

### ASTR 7752 Galactic Astrophysics (3)

Also offered as PHYS 7752. Prereq.: ASTR 7751 Application of physical principles to study of galaxies; interstellar medium, galactic structure and stellar motions, galaxies and cosmology.

### ASTR 7777 Seminar in Astronomy and Astrophysics (1-6)

Also offered as PHYS 7777. May be taken for a max. of 6 sem. hrs. of credit.

### ASTR 7783 Topics in Astronomy and Astrophysics (3)

Also offered as PHYS 7783. May be taken for a max. of 6 hrs. of credit.

### **Business Administration**

# BADM 7000 Internship in Business Administration (3)

Prereq.: prior approval of MBA director. Pass-fail grading based on a written evaluation by the professional supervisor, a written report by the student and the faculty member's evaluation. Open only to full-time MBA students. May be taken once for credit. 10 hrs. of learning experience (fall/spring); 20 hrs. (summer). General supervision by a faculty member; direct supervision by a business professional.

## BADM 7010 Emerging Business Issues and Practices in a Global Economy (1)

Open only to students in the MBA program. Taken each semester of the MBA program. Course must be successfully completed four times prior to graduation. Exposure to the practice of business; a series of visits to area businesses, in conjunction with classroom experiences, to learn how managers and operations specialists in various industries cultivate, shape and exploit their companies' resources to meet current and future global market needs.

### BADM 7020 Managerial Statistics (3)

*Open only to students in the MBA program.* An introduction to statistical thinking and overview of statistical methods used to analyze and interpret data, draw inferences and make decisions; topics include descriptive statistics, probability, sampling and sampling distributions, estimation, confidence intervals, hypothesis testing, linear regression, forecasting and control charting; emphasis on how to use spreadsheets to analyze data and how to interpret the results.

# BADM 7030 Understanding Financial Information (3)

Composition of financial statements; information processing and reporting for the purpose of understanding accounting information; legal and ethical obligations of the accounting profession.

### BADM 7050 Information Systems (3)

*Prereq.: ISDS 1100 or equivalent. Open only to students in the MBA program.* Contemporary topics in information systems; a survey of information system analysis and design; introduction to business data communication, database management systems and knowledge based systems; enterprise-wide systems and information systems control.

### BADM 7060 Elements of Cost Management (3)

*Prereq.: BADM 7030. Open only to students in the MBA program.* Understanding and applying cost management practices used in business today; development of costing and budgeting systems used for cost management; applications of analysis used in management decision making and control; cost-profit-volume analysis; analysis of variances between budgeted and actual cost; methods of evaluating responsibility centers based upon profitability measures.

# BADM 7070 Understanding Behavior in Organizations (3)

*Open only to students in the MBA program.* Broad understanding of factors influencing the behavior of individuals in organizations; topics include the individual and contextual determinants of behavior and the tools managers use to influence and direct employee behavior; emphasis on managerial applications of behavioral science theories.

### BADM 7090 Financial Management (3)

*Prereq.: BADM 7030.* Investment and financing decisions of the firm and the role of capital markets are studied with the objective of understanding how financial management creates wealth. Emphasis is placed on concepts of valuation, risk and opportunity cost.

### **BADM 7100 Marketing Administration (3)**

Marketing decision- making and planning, including marketing research, product development and management, distribution, demand estimation, market structure analysis, pricing, promotion, advertising and direct marketing.

### **BADM 7120 Operations Management (3)**

*Prereq.: BADM 7020. Open only to students in the MBA program.* Major problems and decision processes of operations management; operations strategy; process and capacity planning; facilities planning; aggregate planning; materials planning; quality planning.

### BADM 7140 Legal Environment of Business (3)

*Open only to students in the MBA program.* The structure of the legal environment of business; sources of law affecting business; constitutional issues in the legal environment of business; contracts and sales; torts; products liability; corporations; securities; bankruptcy; antitrust; discrimination; labor relations; environmental law; criminal law; its impact negotiation strategies; associated ethical and international issues.

# BADM 7160 Negotiation, Persuasion and Influence (3)

Experiential-based course designed to provide managers with the basic concepts and techniques necessary for effective negotiation and conflict resolution in a variety of business contexts.

### BADM 7170 Understanding International Management Challenges (3)

*Prereq.: prior approval of MBA Director. May be taken for a max. of 6 hrs. of credit when topics vary.* Theories and management of international operations; development of environmental, operational, strategic and decision making perspectives.

# BADM 7190 Managing Sources of Competitive Advantage (3)

Contemporary approaches to developing and sustaining a competitive advantage in global competition; topics include: competition for competence, strategy and technology, managing home and host government relations, cooperative strategy, strategic alliances, organizational innovation and managing global strategic change.

# BADM 7200 Economic Environment of the Firm (3)

National and global issues that affect the firm; an introduction to theoretical concepts and policy issues associated mainly with macroeconomics and to a lesser degree with managerial economics.

# BADM 7270 Seminar in New Developments in Business Administration (3)

*Prereq.: Permission of department. May be repeated for a maximum of 12 hrs. of credit when topics vary.* Special topics in Business Administration.

# BADM 7420 Financing and Legal Issues for New Ventures (3)

Insight into financing new ventures and investing in companies in early stages; sourcing, qualifying and analyzing deals; negotiating, structuring and pricing; creating value; realizing value through various kinds of exit from the business. Focus on cases and projects taken from actual financing situations; structuring of venture capital; the process of making investments in emerging companies.

# BADM 7460 Special Topics in Entrepreneurship (1.5)

May be repeated for a max. of 6 sem. hrs. credit when topics vary. In-depth coverage in special topics such as women-owned business, home-based business, exporting for small business and team-building for start-ups.

# BADM 7480 Independent Study in Entrepreneurship (1.5)

*Prereq.: departmental approval. May be repeated for a max. of 6 sem. hrs. credit when topics vary.* Detailed study of a specific aspect of entrepreneurship.

### BADM 7600 Consulting Field Project (3)

*Prereq.: Entrepreneurship Specialization or permission of instructor.* Strategic focused field based project learning experiences and opportunities in public and private organizations. Team-based approach to offering consulting advice to organizations with the goal of improving their performance. Emphasis on experiential approaches that provide a participative type of learning about the crucial issues faced by organizations.

# BADM 7900 Human Factors in Business and Industry: Current Problems (3)

May be taken for a max. of 6 hrs. of credit when topics vary. Human factors related to business problems.

### **Basic Sciences**

# BASC 2010 Inquiry Approaches to Math and Science Teaching (1)

Introduction to the theory and practice of inquiry-based math and science instruction; design and execution of lesson plans in elementary school under guidance of course instructor and mentoring elementary school teacher.

## BASC 2011 Inquiry-Based Math and Science Lesson Design (1)

*Prereq.: BASC 2010.* Design and teach lesson plans in middle school under guidance of course instructor and mentoring middle school teacher.

## BASC 7000 Methods of Instruction in College Life Science Laboratories (1)

*Pass-fail grading.* Philosophy and practice of life science laboratory education at the college level.

### **Biological Engineering**

### BE 1251 Introduction to Engineering Methods (2)

*Credit will not be given for this course and BE 1250. 1 hr lec., 3 hrs. lab.* Fundamentals of engineering design; presentation of an engineering design; graphical expression of engineering design using computer-aided drafting.

### BE 1252 Biology in Engineering (2)

*Prereq.: credit or registration in BIOL 1201. 1 hr. lecture; 3 hrs. lab.* Effect of variability and constraints of biological systems on engineering problem solving and design; engineering units; engineering report writing; oral report presentation; laboratory demonstration of biological engineering analysis.

### BE 2350 Experimental Methods for Engineers (3)

*Prereq.: credit or registration in EE 2950 or PHYS 2113. 2 hrs. lecture; 3 hrs. lab.* Introduction to experimental methods, technical report writing and instrumentation for engineering applications; measurement of temperature, pressure, flow, strain and vibration in biological products; microprocessor data loggers and computer data acquisition systems.

### BE 2352 Quantitative Biology in Engineering (3)

*Prereq.: BE 1252. 2 hrs. lecture; 3 hrs. lab.* Characterization of biological phenomena in engineering design; relationships among parameters using linear and nonlinear statistical expressions; case studies of engineering design solutions.

# BE 3290 Professionalism for Biological Engineers (2)

*Prereq.: grade of "C" or better in CE 2450.* Ethical standards, technical communication, goal setting, professionalism and professional organizations, safety and risk, team dynamics and proposal preparation.

# BE 3320 Mechanical Design for Biological Engineering (3)

Prereq.: CE 3400; credit or registration in CE 2460 or ME 3133. Term project in mechanical design. 2 hrs. lecture; 3 hrs. lab. Philosophy of mechanical design for biological engineering; materials for construction; frame design; power transmission.

### BE 3340 Process Design in Biological Engineering (3)

*Prereq.: MATH 2065. 2 hrs. lecture; 3 hrs. lab.* Application of engineering and science concepts to design unit operations and processes relevant to biological engineering.

# BE 3381 Nonpoint Source Pollution Engineering (3)

Prereq.: BE 2352 and EVEG 3110. 2 hrs. lecture; 3 hrs. lab. Water quality criteria and regulations for the agricultural community; production, treatment and disposal of agricultural and food processing wastes; management of agricultural nutrients; nonpoint source pollution; bi-product utilization; land application; wetland restoration; stream sampling and analysis; re-aeration studies and modeling.

# BE 3989 Special Projects in Biological Engineering (1-4)

*Prereq.: consent of instructor. May be taken for a max. of 6 hrs. of credit.* Library research, experimental and/or theoretical investigation and written report in form of engineering report.

### BE 4290 Senior Engineering Design (2)

*Prereq.: BE 2350 and credit or registration in CE 3400.* Students work in teams to develop a detailed design to address a technical problem. Activities include developing measurable design objectives and a product design specification, creating multiple design solutions, evaluating design solutions and communicating a detailed design.

# BE 4292 Senior Engineering Design Laboratory (2)

*Prereq.: BE 4290. 6 hrs. lab.* Engineering principles used to complete the project set forth in the design outline submitted in BE 4290; design project completion.

## BE 4303 Engineering Properties of Biological Materials (3)

*Prereq.: MATH 2065 or MATH 2090 and credit or registration in CE 3400. 2 hrs. lecture; 3 hrs. lab.* Engineering properties, including rheology, friction, mechanical damage, texture, thermal, optical and electrical properties.

### BE 4305 Engineering Entrepreneurship I (3)

*Prereq.*: MATH 1552, AGEC 2003, or ECON 2030. Concepts and current practice in technology related business; emphasis on business, planning, business finance, intellectual property and marketing.

#### BE 4306 Engineering Entrepreneurship II (3)

*Prereq.*: BE 4305. Advanced topics in technology based entrepreneurial business start-up examining case based methods; emphasis on product strategy, planning, IP strategy, regulatory strategy, operations, sales, distribution and finance. Students will engage in a semester long business planning exercise.

### BE 4323 Biomechanics for Engineers (3)

Also offered as IE 4465. Prereq.: CE 2450. 2 hrs. lecture; 3 hrs. lab. Mechanical behavior of the human musculoskeletal system and component tissue when physical work is performed; engineering mechanics applied to the activities; fundamental knowledge of human anatomy and physiology; workplace design.

## BE 4332 Molecular Methods in Biological Engineering (3)

*Prereq.: BIOL 2083, BE 2350 and credit or registration in BE 4303.* Fundamentals of the theory and applications of quantitative molecular techniques used in biological engineering research and design.

#### BE 4335 Tissue Engineering (3)

*Prereq.: BE 4303, BIOL 1202, BIOL 2083 and CHEM 2261.* Familiarizing engineers with tissue engineering concepts and current practice. Topics include: embryology, stem cell biology, cell signaling, nutrition, cryobiology, biomaterials, synthesis/characterization, biocompatibility and scaffold design; design project included.

# BE 4336 Biocompatibility & Surface Modification of Materials (3)

*Prereq.: BE 4303.* Biocompatibility of materials; biomaterials and their biomedical applications; and surface modification technology. A design project will be included.

### BE 4337 Regenerative Medicine (3)

*Prereq.: BIOL 2083 and BE 1252.* Will introduce technologies to regenerate tissues and organs utilizing stem cells and engineered biomaterials. Widely utilized and most advanced regenerative engineering technologies will be presented and discussed, including translational and clinical applications of engineered tissues.

### BE 4340 Food and Bioprocess Engineering (3)

*Prereq.: BE 2352; credit or registration in BE 3340. 2 hrs. lecture; 3 hrs. lab.* Design and analysis of systems for processing biological materials, with emphasis on food; topics include biotechnology, fluid flow, thermodynamics and transport phenomena in food and bioprocessing; unit operations, including freezing, extraction, drying and aseptic processing.

### BE 4341 Biological Reactor Systems Design (3)

*Prereq.: BIOL 2051 and BE 4352. 2 hrs. lecture; 3 hrs. lab.* Microbial and biochemical principles used in design of biological reactors for biotransformation; metabolic output and cellular production; design of batch and continuous flow reactors utilizing microbial kinetic models; attached and suspended growth systems and eucaryotic and procaryotic cells.

#### BE 4342 Sugar Process Engineering (3)

*Prereq.: EE* 2950, *CE* 2200 or *ME* 3834 or *CHE* 3101, *ME* 2334 or *ME* 3333 or *CHE* 3172. Processes used in the manufacture of raw and refined sugar; application of scientific and engineering principles to unit operations of evaporation, crystallization, extraction, solids handling and drying, centrifuging, clarification and steam and power generation.

## BE 4352 Transport Phenomena in Biological Engineering (3)

*Prereq.: BE 2352, BIOL 2051; credit or registration in CE 2200 and ME 3333.* Mass balances with consideration of chemical and biological reaction kinetics; energy balance and principles of conduction, convection and radiation including 3-D diffusion, transient heat transfer and convection analysis; energy transfer in engineering design and analysis; principle of mass transfer.

### BE 4380 Aquacultural Engineering (3)

*Prereq.: senior standing.* Engineering principles applied to aquacultural systems; water chemistry; fluid mechanics; aquacultural pumping plants; fish pond design; recirculating aquacultural systems; water filtration; disinfection; aeration and degassing.

### BE 4383 Natural Resource Engineering (3)

*Prereq.: CE 2200.* Engineering analysis and design of natural resource control systems, including open channels, vegetated water-ways, terraces, water control structures, spillways, reservoirs, flood control, surface water quality and wetlands.

### BE 4910 Special Topics in Undergraduate Biological Engineering (3)

*Prereq.: permission of instructor. May be repeated for a max. of 6 hrs. of credit when topics vary.* One or more phases of undergraduate biological engineering practice.

## BE 4989 Independent Study in Biological Engineering (1-4)

Prereq.: senior standing. Written engineering report required. May be taken for a max. of 6 sem. hrs. of credit when topics vary. Biological engineering practice; library research, experimental and/or theoretical investigation.

# BE 7304 Advanced Natural Resource Engineering (3)

*Prereq.: BE 4383.* Advanced topics in statistical hydrology, flow theory, evapotranspiration, transport of pollutants, drainage, irrigation, erosion, sediment transport and sedimentation applied to rural fields and watersheds.

## BE 7340 Advanced Food Engineering and Biotechnology (3)

*Prereq.: BE 4340.* Design and modeling of food and bioprocessing systems; application of advanced thermodynamic principles and transport phenomena with emphasis on numerical techniques in the design, analysis and modeling of food systems; focus on current research topics in food engineering and food biotechnology.

# BE 7350 Advanced Instrumentation and Control for Biological Systems (3)

*Prereq.: BE 2350 and MATH 2065. 2 hrs. lecture; 3 hrs. lab.* Theory of measurement and feedback integrated with applied design work with biological systems; focus areas include: aquaculture, precision farming, environmental applications, bioprocess, biomedical measurement and control concepts.

### BE 7381 Advanced Aquacultural Engineering (3)

*Prereq.: BE 4380.* Advanced topics in aquacultural aeration, oxygenation, disinfection of aquacultural systems and aquacultural wastewater characterization; integration with traditional agricultural production.

### BE 7500 Seminar (1)

*Prereq.: graduate standing in engineering. Pass-fail grading.* Only 1 sem. hr. of credit will be allowed toward the degree.

# BE 7909 Advanced Topics in Biological Engineering (1-4)

*Prereq.*: consent of instructor. *May be taken for a max. of 6 hrs. of credit when topics vary.* One or more phases of advanced biological engineering practice.

# BE 7910 Special topics in Biological Engineering (3)

*May be taken for a max. of 9 hrs. when topics vary.* One or more phases of advanced biological engineering practice.

### BE 8000 Thesis Research (1-12 per sem.)

"S"/"U"grading.

### **Biological Sciences**

### BIOL 1001 General Biology (3)

[LCCN: CBIO 1013, General Biology I] This is a General Education course. *Credit will not be given for this course and BIOL 1201. For nonscience majors. Not for degree credit for a student majoring in a biological science.* General concepts in cell biology, genetics, ecology and evolution.

### BIOL 1002 General Biology (3)

[LCCN: CBIO 1023, General Biology II] This is a General Education course. *Prereq.: BIOL 1001 or BIOL 1201. Credit will not be given for this course and BIOL 1202. For nonscience majors. Not for degree credit for a student majoring in a biological science.* Diversity, interactions and life histories of microorganisms, fungi, plants and animals.

### BIOL 1005 Introductory Biology Laboratory (2)

[LCCN: CBIO 1022, General Biology Lab I + II] Prereq.: credit in BIOL 1001 and credit or registration in BIOL 1002; Credit not allowed for students who have had BIOL 1207, BIOL 1208 or BIOL 1209. 1 hr. lecture; 3 hrs. lab. Basic principles of biology including cell biology, genetics, ecology, evolution, diversity and systems physiology.

### BIOL 1011 Microorganisms and Man (3)

[LCCN: CBIO 2103, 2104 General Microbiology] This is a General Education course. *Credit will not be given for both this course and BIOL 2051. Not open to biological science majors.* Microorganisms and their relationship to people; microbial form and function; role of bacteria in health and disease, ecology and industry from food production to genetic engineering.

# BIOL 1012 Microorganisms and Man Laboratory (1)

[LCCN: CBIO 2101, 2104, General Microbiology Lab] Prereq.: credit or registration in BIOL 1011. Credit will not be given for both this course and BIOL 2051. Not open to biological science majors. 3 hrs. lab. Basic laboratory skills for handling and observing microorganisms; demonstration of features of microorganisms discussed in BIOL 1011.

### BIOL 1201 Biology for Science Majors I (3)

[LCCN: CBIO 1033, 1034, General Biology I (Science Majors)] This is a General Education course. *Prereq.: minimum ACT composite of 23 or "C" or better in CHEM 1201. Credit will not be given for both this course and BIOL 1001.* Primarily for students in science, agriculture or education. General concepts in cellular structure, cellular metabolism, cellular communication and genetics.

### BIOL 1202 Biology for Science Majors II (3)

[LCCN: CBIO 1043, 1044, General Biology II (Science Majors)] This is a General Education course. *Prereq.*: *BIOL 1201. Primarily for students in science, agriculture or education. Credit will not be given for this course and BIOL 1002.* General concepts in evolution, ecology and the function of organisms.

# BIOL 1207 Honors: Biology Laboratory for Science Majors (1)

Prereq.: credit or registration in BIOL 1201 and admission to the Honors College. Credit will not be given for this course and BIOL 1005 or BIOL 1208. 3 hrs. lab. Topics include biochemistry, enzymes, cell structures, osmosis, cellular respiration, photosynthesis, cell division, genetics and ecology.

## BIOL 1208 Biology Laboratory for Science Majors I (1)

[LCCN: CBIO 1031, 1034, General Biology I Lab (Science Majors)] *Prereq.: credit or registration in BIOL 1201. Credit will not be given for this course and BIOL 1005 or BIOL 1207. 3 hrs. lab.* Primarily for students majoring in science, agriculture or education.

# BIOL 1209 Biology Laboratory for Science Majors II (1)

[LCCN: CBIO 1041, 1044, General Biology II Lab (Science Majors)] *Prereq.: credit in BIOL 1208; credit or registration in BIOL 1202. Credit will not be given for this course and BIOL 1005.* Primarily for students majoring in science, agriculture or education.

## BIOL 1503 Honors: Biology for Science Majors II (4)

This is a General Education course. *Prereq.: BIOL* 1201 and BIOL 1207 or BIOL 1208 and permission of department. Credit will not be given for this course and BIOL 1002 and BIOL 1005 or BIOL 1202 and BIOL 1209. 3 hrs. lecture; 3 hrs. lab. Similar content as BIOL 1202 and BIOL 1209 with special emphasis on selected topics for qualified students.

### **BIOL 2051 General Microbiology (4)**

[LCCN: CBIO 2124, General Microbiology (Science Majors)] *Prereq.: BIOL 1202, BIOL 1209 and CHEM 1202. Credit will not be given for both this course and BIOL 1011 or BIOL 1012. 3 hrs. lecture; 3 hrs. lab.* Structure and function of microbial cells and their relationship to people and the environment.

### BIOL 2083 The Elements of Biochemistry (3)

Prereq.: CHEM 2060 or CHEM 2261. Credit will not be given for this course, BIOL 4087 or either BIOL 4093 and BIOL 4094. Not for degree credit for students in Biological Sciences, Biochemistry, or Microbiology. Nature and physiological uses of natural substances of interest to education, agriculture and nutrition and food sciences majors.

### **BIOL 2153 Principles of Genetics (4)**

[LCCN: CBIO 2513, Introduction to Genetics] *Prereq.: BIOL 1202, BIOL 1209 and enrollment or credit in CHEM 1202. 3 hrs. lecture, 1 hr. recitation.* Fundamental laws of heredity.

### BIOL 2160 Human Physiology (3)

BIOL 1001 or BIOL 1201 recommended. May be taken for free elective credit by a student majoring in Biological Sciences, Biochemistry, or Microbiology. Students will not receive credit for both this course and BIOL 4160. Elements of human physiology; controls and functions of the various organ systems.

#### **BIOL 2900 Careers in Life Sciences (1)**

Prereq.: credit or registration in BIOL 1202; open to Biological Sciences, Biochemistry and Microbiology majors only. A one hour writing workshop outside class is required. Career opportunities in all fields of the biological sciences.

### **BIOL 3040 Evolution (3)**

*Prereq.: BIOL 2153. EXST 2201 recommended.* Principles and processes in evolutionary biology.

#### **BIOL 3060 Introductory Plant Physiology (4)**

Also offered as PLHL 3060. Prereq.: BIOL 1202 and BIOL 1209; CHEM 2060, CHEM 2261 or CHEM 2461. 3 hrs. lecture; 3 hrs. lab. Life processes of plants emphasizing growth and development, metabolism, transport and water relations.

### BIOL 3090 Cell Biology (3)

[LCCN: CBIO 4143, Cell Biology (Upper Level)] *Prereq.*: *BIOL 2153 and CHEM 2262*. Molecular description of cell structure and function.

### BIOL 3116 Advanced Microbiology Laboratory (3)

*Prereq.: BIOL 2051; permission of department. 6 hrs. lab.* Laboratory course illustrating experimental microbiology in ecology, taxonomy, physiology and genetics.

## BIOL 3152 Comparative Anatomy of the Vertebrates (4)

[LCCN: CBIO 3234, Comparative Anatomy (Upper Level)] *Prereq.: BIOL 2153. BIOL 3090 recommended. 2 hrs. lecture; 6 hrs. lab.* Macroevolution, biomechanics and functional anatomy of vertebrates; lab dissection of selected vertebrates.

### **BIOL 3156 Developmental Zoology (4)**

*Prereq.: BIOL 3090. 3 hrs. lecture; 3 hrs. lab.* Combination of classical descriptive embryology and contemporary experimental theories focusing on the mechanisms of development in vertebrates and invertebrates.

## BIOL 3900 Undergraduate Seminar in Biological Sciences (1)

*Prereq.: junior standing and consent of the instructor.* Oral presentation of independent laboratory or library research on selected topics in biological sciences.

## BIOL 3999 Undergraduate Research in Biological Sciences (1-3)

*Prereq.: permission of department. May be taken for a max. of 6 sem. hrs. of credit.* Individual research on problems in the biological sciences.

### **BIOL 4001 Physical Chemistry (3)**

*Prereq.: CHEM 2262, PHYS 2002, and MATH 1552 or MATH 1554.* Theoretical chemistry; emphasis on solutions, equilibria and topics of interest to students in biological sciences.

### BIOL 4002 Insect Biology (3)

See ENTM 4002.

## BIOL 4003 Science Teaching in Secondary School III: Instructional Strategies in the Sciences (1)

Also offered as CHEM 4003. Prereq.: credit in EDCI 2500 and BASC 2011. How to teach high school level laboratory courses, including instructional strategies, laboratory management, safety. Focuses on preparation to teach high school level AP laboratory courses.

# BIOL 4004 Seminar in Teaching Secondary School Science (3)

Also offered as CHEM 4004. Prereq.: credit or registration in EDCI 4004 or equivalent, credit or registration in EDCI 4005 or equivalent and credit in BIOL 4003, or CHEM 4003.

### **BIOL 4005 Science Research Methods (3)**

Also offered as CHEM 4005 and PHYS 4005; permission of the department. Prereq.: credit for EDCI 2500 and credit or registration in EDCI 3550. Not for graduate credit. Focusing on the tools that scientists use to solve scientific problems, including use of experiments to answer scientific questions, experimental design, use of statistics and mathematical modeling of scientific phenomena; oral presentation of scientific work and a minimum of ten hours of work in area middle and high schools.

#### **BIOL 4015 Conservation Biology (4)**

Same as RNR 4015. *Prereq.: BIOL 1202, BIOL 1209, and* 7 sem. hrs. biological sciences; genetics recommended. 3 hrs. lecture; 1 hr. recitation. Principles and concepts of conservation biology; practical applications of conservation biology to design, management and restoration of ecologically sustainable preserves at local, regional, and global scales; threats to biological diversity and

sustainability resulting from human population growth, resource exploitation, and global climate change.

### **BIOL 4017 Laboratory in Conservation Biology (2)**

Same as RNR 4017. Coreq.: BIOL 4015/RNR 4015 or equivalent. Laboratory to accompany BIOL 4015/RNR 4015. 4 hrs. lab. Practical application of principles and concepts of conservation biology through group and independent study of conservation of biological diversity and ecological processes in preserves. Lab and field exercises focus on asking scientific questions, formulating scientific studies, collecting and analyzing data, and writing scientific papers. Group development and execution of a science-based educational project on conservation for the general public or schools.Two all-day field trips on Saturdays.

## BIOL 4020 Taxonomy and Ecology of Wetland Plants (4)

Also offered as RNR 4020. Prereq.: BIOL 1202 and BIOL 1209. 3 hrs. lecture; 3 hrs. lab; extended field trips. Field service fee. Taxonomy, ecology, distribution and economic significance of wetland plants in Louisiana.

### **BIOL 4041 Plant Taxonomy (4)**

*Prereq.: BIOL 1202 and BIOL 1209. 2 hrs. lecture; 4 hrs. lab.* Principles of identification, classification, and nomenclature; their application to select groups of vascular plants.

### **BIOL 4054 Introductory Mycology (4)**

Same as PLHL 4054. Prereq.: BIOL 1202 and BIOL 1209 or equivalent. 3 hrs. lecture; 3 hrs. lab. Developmental morphology, taxonomy and adaptive strategies of fungi; interactions of fungi with plants and animals.

### **BIOL 4055 Flora of the Central Gulf Coast (4)**

*Prereq.: BIOL 1202 and BIOL 1209. Two Saturday field trips. 2 hrs. lecture; 4 hrs. lab.* Major plant groups and communities of Louisiana and the Gulf region; field and laboratory identification, natural history, ecology, environmental issues relating to natural vegetation and conservation of natural areas.

#### BIOL 4084 Geomicrobiology (3)

Prereq.: GEOL 3032 or BIOL 2051 or consent of instructor. See GEOL 4084.

### **BIOL 4087 Basic Biochemistry (4)**

*Prereq.:* BIOL 2153, and CHEM 2262 or CHEM 2462. *Credit will not be given for this course, BIOL 2083 and either BIOL 4093 or BIOL 4094.* Cellular macromolecules; production and utilization of energy by the cell; major metabolic pathways and their control; molecular biology.

### BIOL 4090 Marine and Environmental Microbiology (3)

See OCS 4090.

### **BIOL 4093 General Biochemistry I (3)**

[LCCN: CBIO 3403, Biochemistry I (Upper Level)] Prereq.: BIOL 2153 and CHEM 2262 or CHEM 2462. Credit will not be given for BIOL 2083 or BIOL 4087. Biochemistry majors earning less than a "C" twice in BIOL 4093 must have Department of Biological Sciences approval before continuing with the Biochemistry degree. Students not approved to continue will have to switch to a major that does not require BIOL 4093. Structure and function of proteins, nucleic acids, lipids and carbohydrates; enzymology; respiration.

### **BIOL 4094 General Biochemistry II (3)**

[LCCN: CBIO 4413, Biochemistry II (Upper Level)] *Prereq.: "C" or better in BIOL 4093. Credit will not be given for BIOL 2083 or BIOL 4087.* Metabolic pathways; nucleic acid structure; flow of genetic information; regulation of gene expression; recombinant DNA.

### **BIOL 4097 Biochemistry of Aging (3)**

*Prereq.*: BIOL 4087 or BIOL 4093. The phenomenon of aging and the underlying biochemical mechanisms.

### BIOL 4104 Histology (4)

*Prereq.: BIOL 3090 or BIOL 3156; permission of department. 2 hrs. lecture; 6 hrs. lab.* Morphological basis of function in mammalian tissues and organs.

### **BIOL 4105 Parasitology (3)**

*Prereq.: BIOL 2153.* Biology of animal parasites; emphasis on important human parasites.

#### **BIOL 4106 Parasitology Laboratory (1)**

*Prereq.: credit or concurrent enrollment in BIOL 4105. 3 hrs. lab.* Field and laboratory investigations in parasitology.

### **BIOL 4110 Introductory Microbial Physiology (3)**

*Prereq.: BIOL 2051 and CHEM 2261 or CHEM 2461.* Concepts of bacterial nutrition, metabolism, adaptation and genetics as related to growth and environment.

### **BIOL 4115 Microbial Ecology (3)**

*Prereq.*: BIOL 2051 and BIOL 2153. The structure and function of microbial communities in human/animal, terrestrial, subsurface, and aquatic biomes; emphasis on the linkages among microbial diversity, ecology, and evolution.

### BIOL 4123 Immunology (3)

*Prereq.: BIOL 2051 and BIOL 3090 or BIOL 4087 or BIOL 4093.* Molecular and cellular basis of innate and cell-mediated immunity.

### **BIOL 4124 Microbial Pathogens (3)**

*Prereq.: BIOL 2051.* Survey of pathogenic organisms including bacteria, viruses, fungi and parasites; host responses to pathogens.

### **BIOL 4125 Prokaryotic Diversity (3)**

*Prereq.: BIOL 2051.* Biology of bacteria and archaea; evolution, diversity assessment, systematics, ecology; emphasis on molecular approaches.

### BIOL 4126 Methods in Microbial Diversity (4)

*Prereq.: BIOL 4125 and consent of instructor. 1 hr. lecture; 6 hrs. lab.* Classical and molecular methods used to study microbial diversity.

### **BIOL 4132 Eukaryotic Molecular Genetics (3)**

*Prereq.: BIOL 2153, and BIOL 4087 or BIOL 4093.* Molecular biology and genetics of eukaryotes. Overview of regulation of gene expression in eukaryotes, nucleic acid and chromatin structure, protein-DNA interactions, recombination mechanisms, and RNA biology. Emphasis is placed on the application of methods and basic principles to biotechnology and medicine.

### BIOL 4141 Mammalogy (4)

*Prereq.: BIOL 1202 and BIOL 1209;* Field service fee. 2 *hrs. lecture; 6 hrs. lab.* Biology of mammals; origins, adaptive radiations and ecology.

### BIOL 4142 Ornithology (4)

*Prereq.: BIOL 2153 or RNR 4103. Permission of department. 3 hrs. lecture; 3 hrs. lab and field work.* Field service fee. Biology of birds; emphasis on ecology, behavior and evolution.

### BIOL 4145 Ichthyology (4)

Also offered as RNR 4145. Prereq.: BIOL 1202 and BIOL 1209. Field service fee. 2 hrs. lecture; 6 hrs. lab and field work. Biology of fishes; evolution, classification and ecology.

### BIOL 4146 Herpetology (4)

*Prereq.: BIOL 1202 and BIOL 1209; Field service fee. 2 hrs. lecture; 6 hrs. lab and field work.* Taxonomy and natural history of amphibians and reptiles.

#### BIOL 4154 Invertebrate Zoology (4)

*Prereq.: BIOL 2153. Field service fee. 3 hrs. lecture; 3 hrs. lab.* Biology of the invertebrates; phylogeny, functional morphology.

### **BIOL 4155 Environmental Physiology (3)**

*Prereq.: BIOL 2153.* Physiological adaptations of animals to physical and chemical parameters of the environment.

### BIOL 4158 Endocrinology (3)

*Prereq.: BIOL 3090 or BIOL 4087 or BIOL 4093.* Physiology of neural and hormonal regulation in vertebrates.

#### **BIOL 4160 Vertebrate Physiology (3)**

*Prereq.:* BIOL 3090 or BIOL 4087 or BIOL 4093, and CHEM 2262 or CHEM 2462. Students will not receive credit for both this course and BIOL 2160. Principles of vertebrate systems physiology; emphasis on mammalian systems.

### BIOL 4161 Vertebrate Physiology Laboratory (1)

Prereq.: credit or concurrent enrollment in BIOL 4160 or BIOL 4170 or equivalent and MATH 1552 or MATH 1554 or EXST 2201. 3 hrs. lab. Laboratory exercises in systems physiology.

### **BIOL 4162 Food Microbiology (4)**

See NFS 4162.

### **BIOL 4163 Industrial Microbiology (4)**

Also offered as NFS 4163. Prereq.: BIOL 4110 or equivalent. 2 hrs. lecture; 4 hrs. lab. Microbes used in industrial processes such as production of chemicals, antibiotics and vitamins.

### **BIOL 4165 Environmental Adaptations (3)**

*Prereq.: BIOL 2153.* Biochemical and physiological mechanisms adapting organisms to environmental factors; emphasis on the evolutionary biochemical adaptations permitting organisms to inhabit diverse environments.

### **BIOL 4170 Comparative Animal Physiology (3)**

*Prereq.: BIOL 3090 or BIOL 4087 or BIOL 4093.* Physiological principles at the molecular, cellular and systems levels are evaluated across many animal phyla. The ways in which diverse organisms perform similar functions are explained, revealing unifying themes of physiological response and adaptation only illuminated with a comparative perspective.

### **BIOL 4177 Neurobiology (3)**

*Prereq.: BIOL 3090 or BIOL 4160, and CHEM 2262 or CHEM 2462.* Principles of organization and function in nervous systems; molecular basis of behavior.

### **BIOL 4190 Introductory Virology (3)**

*Prereq.: BIOL 2051.* Viruses and their host cells; biochemistry and molecular biology of viral infections.

### **BIOL 4200 Microbial Morphogenesis (3)**

*Prereq.: BIOL 2051 and BIOL 2153.* Cellular morphogenesis in microorganisms and its control by differential gene expression; physiological changes during microbial differentiation; adaptive roles and practical applications.

## BIOL 4215 Molecular Biology of Bacterial Disease (3)

*Prereq.: BIOL 2051.* Discussion of the many strategies that pathogenic bacteria use to invade and prosper within the human body. Emphasis placed on acquired resistance, bacterial invasion strategies, interaction with host immune systems, and adaptive ability of bacteria.

#### **BIOL 4246 Microbial Genetics (3)**

*Prereq.: BIOL 2051 and BIOL 2153. BIOL 4087 or BIOL 4093 recommended.* Microbial genetic principles: mutation, conjugation, transformation, recombination, transduction, gene expression; molecular biology of bacteriophage and plasmids; recombinant DNA technology.

### BIOL 4253 Principles of Ecology (3)

[LCCN: CECO 4123, 4124, Principles of Ecology (Upper Level)] *Prereq.: BIOL 1202, BIOL 1209 and MATH 1552 or MATH 1554 or EXST 2201.* Fundamental ecological principles governing the structure and function of populations, communities, and ecosystems; comparative habitat ecology.

### BIOL 4254 Principles of Ecology Laboratory (1)

[LCCN: CECO 4121, 4124, Principles of Ecology Lab (Upper Level)] *Prereq.: credit or registration in BIOL* 4253. Field service fee. 3 hrs. lab. Laboratory exercises in ecology.

# BIOL 4256 Microbial Ecology and Nutrient Cycling in Soils (4)

See AGRO 4056/EMS 4056.

### **BIOL 4262 Marine Communities (3)**

*Prereq.: BIOL 2153.* Marine biology; ecology of benthic, planktonic, nektonic, estuarine, oceanic, coral and mangrove communities; emphasis on Louisiana's coastal environments.

### **BIOL 4263 Marine Communities Laboratory (1)**

*Prereq.: credit or concurrent enrollment in BIOL 4262 or equivalent. Field service fee. 3 hrs. lab.* Laboratory experiences in marine communities.

### **BIOL 4308 Plants in Coastal Environments (3)** See OCS 4308.

### BIOL 4385 Biochemistry Laboratory (3)

[LCCN: CBIO 4412, Biochemistry I+II Lab (Upper Level)] *Prereq.: credit or registration in BIOL 4087 or BIOL 4093. 1 hr. lecture; 6 hrs. lab.* Techniques including chemistry of amino acids and proteins; purification, immunochemistry, kinetics of enzymes; protein biosynthesis; nucleic acid chemistry; properties and restriction mapping of plasmids and recombinant DNA; spectrophotometry, chromatography, electrophoresis, centrifugation, and radioisotope labeling.

### **BIOL 4400 Molecular Genetics Laboratory (3)**

Prereq.: BIOL 2153 and 6 hrs. of biological sciences at the 4000 level or BIOL 4246 and 3 hrs. of biological sciences at the 4000 level. 1 hr. lecture; 6 hrs. lab. Current techniques used to genetically engineer microorganisms, study gene expression and DNA modification, and identify organisms by specific genetic alleles; computer analysis of DNA and protein sequences.

#### BIOL 4444 Seed Physiology (3) See PLHL 4444.

### BIOL 4450 Cell Biology of the Nucleus (3)

*Prereq.: BIOL 4087 or BIOL 4093. BIOL 3090 recommended.* Molecular organization of eukaryotic cells; gene structure and function; molecular regulation of signal transduction and cell cycle.

### BIOL 4596 Biophysics of Macromolecules (3)

*Prereq.: BIOL 2153 and CHEM 2262 or CHEM 2462. BIOL 4087 or BIOL 4093 recommended.* Theory and application of physical techniques to the study of biological macromolecules; spectroscopy (UV-VIS absorption and fluorescence, circular dichroism, IR, NMR, X-ray diffraction); helix-coil theory; theories of ligand binding.

### **BIOL 4753 Human Molecular Genetics (3)**

*Prereq.: BIOL 2153 and BIOL 4087 or BIOL 4093.* Principles of human genetics, comparative genomics, forensic and molecular genetics.

# BIOL 4800 Selected Topics in Biological Sciences (2-4)

Prereq.: 16 sem. hrs. of biological sciences and permission of department. May be taken for a max. of 6 sem. hrs. of credit when topics vary.

## BIOL 4801 Laboratory for Selected Topics in Biological Sciences (1-2)

Prereq.: 16 semester hours of biological sciences and permission of department. May be taken for a max. of 4 semester hours of credit when topics vary.

### BIOL 6147 Selected Topics in Life Science (1-3)

*Prereq.: BIOL 1001, BIOL 1002, BIOL 1005 or equivalent. May be taken for a max. of 6 sem. hrs. credit when topics vary.* Specific areas of biological sciences; topics offered determined by recent advances in the field, needs of students and availability of appropriate faculty.

### **BIOL 7010 Plant Molecular Biology (3)**

Prereq.: BIOL 3060, BIOL 4093, and BIOL 4094 or equivalent. See PLHL 7010.

**BIOL 7061 Plant Growth and Development (3)** See PLHL 7061.

### BIOL 7063 Plant Metabolism (3) See PLHL 7063.

## BIOL 7067 Selected Topics in Plant Physiology (2)

Same as PLHL 7067. Prereq.: consent of instructor. May be repeated for credit. Mineral nutrition, metabolism, growth and development and herbicides.

### **BIOL 7080 Population Ecology (3)**

Also offered as ENTM 7080. Prereq.: BIOL 4253 or equivalent. Advanced topics emphasizing animals in population growth and regulation; life histories; foraging behavior; agonism and territoriality; and group behavior.

### **BIOL 7083 Community Ecology (3)**

*Prereq.: BIOL 4253 or equivalent.* Ecological processes of communities; predation, competition, mutualism, disturbance, succession, island biogeography and diversity.

#### **BIOL 7110 Molecular Evolution (3)**

*Prereq.: BIOL 3040 or equivalent.* Evolution of genes and genomes; nucleotide substitution rates; positive selection; gene duplication and conversion; transposable elements; evolution of genome size.

### BIOL 7111 Systematic Biology (4)

Prereq.: 8 sem. hrs. of 4000-level biological science courses or equivalent; introductory statistics recommended. 3 hrs. lecture; 2 hrs. lab. Theoretical and empirical aspects of systematics and evolutionary biology.

### BIOL 7120 Marine Ecology (3)

Also offered as OCS 7317. Prereq.: consent of instructor. 2 hrs. lecture; 3 hrs. lab. and field work. Physical, chemical and biological environmental factors affecting distribution of marine fauna; communities representative of each of the ecological subdivisions of the world's oceans treated with respect to species composition, food webs and seasonal changes; human impact on the marine environment.

# BIOL 7132 Mechanisms of Eukaryotic Gene Regulation (3)

*Prereq.: permission of instructor.* Overview of the mechanisms that have evolved in eukaryotic cells to regulate gene expression and other aspects of molecular biology, such as DNA repair and nuclear organization.

# BIOL 7155 Energy Transducing Membrane Proteins (3)

*Prereq.: BIOL 4110 and BIOL 4087 or BIOL 4093 or equivalent.* Structure and function of energy transducing membrane proteins including bacteriorhodopsin, ATP synthase, cytochrome oxidase, cytochrome b/c1 complexes, the bacterial reaction center, photosystem I and II and antennae pigment protein complexes.

## BIOL 7162 Molecular Biology of Microorganisms (3)

*Prereq.: BIOL 4246, and either BIOL 4110 or BIOL 4094 or equivalent.* Synthesis, activity and interactions of various molecular components of microbial cells; macromolecules and their relationship to cellular function and heredity.

### **BIOL 7253 Molecular Population Genetics (4)**

*Prereq.: BIOL 2153 or equivalent. 3 hrs. lecture; 3 hrs. discussion/lab.* Molecular genetic variation in natural populations; effects of selection, inbreeding, random drift, migration and mutation on DNA and protein polymorphisms; emphasis in lab on computer-assisted manipulation and analysis of molecular data.

### **BIOL 7260 Advanced Genetics (3)**

*Prereq.: permission of instructor.* The use of mutations and contemporary genetic approaches for genetic analysis of function in humans and research organisms.

#### BIOL 7280 Nucleic Acids (3)

*Prereq.: BIOL 4094 or equivalent.* Chemistry and biochemistry of nucleic acids; structure, expression and regulation of genes in prokaryotic and eukaryotic organisms.

#### BIOL 7284 Proteins (3)

*Prereq.:* BIOL 4001 and BIOL 4093 or equivalent. Conformations of fibrous and globular proteins; their interactions with small and large molecules.

### BIOL 7285 Advanced Enzymology (3)

*Prereq.: one semester of physical chemistry and credit or registration in BIOL 4094.* Principles involving action of enzymes on a molecular level; includes kinetics, inhibition, Ph effects, active site, coenzymes, reaction mechanism and protein structure of enzymes.

### BIOL 7288 Lipids and Membranes (3)

*Prereq.: BIOL 4094.* Chemistry and biochemistry of lipids and membranes; analytical methods for lipids; biosynthesis of complex lipids; organization and function of biological membranes.

### **BIOL 7290 Complex Carbohydrates (3)**

*Prereq.: BIOL 4094.* Chemistry of carbohydrates including stereochemistry, reactions, derivatization and analysis; biosynthesis and functions of complex carbohydrates; structure and function of complex carbohydrates including polysaccharides, glycoproteins and glycolipids; immunology and receptorology.

#### **BIOL 7626 Toxicology IV: Genetic Toxicology (3)** See ENVS 7626.

#### **BIOL 7648 Museum Field Expedition (6)**

*Prereq.: consent of instructor.* One semester in the field under direction of the Museum of Natural Science staff.

## BIOL 7800 Special Topics in Biological Sciences (2-4)

*Prereq.: consent of instructor. May be taken for a max. of 12 sem. hrs. when topics vary.* Specialized topics of current interest in the biological sciences.

# BIOL 7901 Departmental Seminar in Biological Sciences (1)

*May be repeated for a max. of 6 sem. hrs. of credit.* Reports on specialized subjects of current interest in the biological sciences.

# BIOL 7902 Departmental Seminar in Biochemistry (1)

May be repeated for a max. of 6 sem. hrs. of credit. Reports on specialized subjects of current interest in biochemistry.

## BIOL 7921 Research Presentations in the Biological Sciences (1)

*Pass/fail grading. May be repeated for credit.* Presentations of individual research projects in the biological sciences.

### BIOL 7946 Seminar: Current Topics in Molecular Evolution (1)

Also offered as ENTM 7946. Prereq.: course in evolution, genetics, BIOL 4087 or equivalent. May be taken for max. of 6 hrs. credit when topics vary.

## BIOL 7979 Tropical Biology: An Ecological Approach (1-8)

Also offered as ENTM 7979. Eight-week field course at research sites in Costa Rica; conducted by Organization for Tropical Studies. Complexities of tropical plants and animals and their interactions.

## BIOL 7990 Independent Research in Biological Sciences (2-8)

*Prereq.: consent of instructor. May be repeated for a max. of 9 sem. hrs. credit.* Directed research under the guidance of a graduate faculty member.

## BIOL 7995 Independent Readings in Biological Sciences (1-3)

*Prereq.: consent of instructor. May be taken for a max. of 9 sem. hrs. of credit.* Directed individual readings under the guidance of a graduate faculty member.

### BIOL 8000 Thesis Research (1-12 per sem.)

"S"/"U"grading.

### **BIOL 8910 Research Participation (3)**

Offered in Su For high school science teachers.

**BIOL 9000 Dissertation Research (1-12 per sem.)** *"S"/"U"grading.* 

### **Business Law**

### BLAW 3200 Introduction to Law (3)

Not open to students in the E. J. Ourso College of Business. Credit will not be given for both this course and BLAW 3201 and BLAW 4203. Fundamentals of the American legal system; basic principles of the law of contracts, commercial paper, agency, partnerships, corporations, torts and crimes; case materials used to demonstrate legal analysis and reasoning.

### BLAW 3201 Business Law (3)

*Credit will not be given for this course and BLAW 3200.* Development of Anglo-American common law, the American constitutional system, and the Louisiana civil law system; law of contracts, torts and agency; business aspects of criminal law; ethical facets of the legal environment; case materials used to demonstrate problem analysis.

#### **BLAW 3202 Commercial Transactions (3)**

*Prereq.: BLAW 3201. Credit will not be given for this course and BLAW 3200.* Louisiana law and Federal legislation in the following areas: employment law, workers' compensation, business entities, intellectual property, agency, insurance, sales, donations, leases, security devices, bankruptcy and commercial paper.

### BLAW 3230 Sports Law (3)

Business and legal sports aspects, particularly professional and collegiate level; antitrust laws; labor law and collective bargaining; contract law and player agents; professional franchise location; college athletics and the NCAA; equal opportunities and Title IX; licensing and trademark rights; tort issues.

# BLAW 4203 Commercial Transactions for Accountants (3)

Prereq.: BLAW 3201. Credit will not be given for this course and BLAW 3200. Specifically for accounting majors. Legal concepts underlying sale of goods; commercial paper; security interests, securities regulation, accountants' malpractice, negotiable instruments and bankruptcy; application of the Uniform Commercial Code and preparation for the CPA examination.

### **Comparative Biomedical Sciences**

# CBS 7001 Seminar: Comparative Biomedical Sciences (1)

*May be taken for a max. of 8 hrs. of credit.* Reports and discussions on topics of current interest in various scientific disciplines.

# CBS 7002 Research Techniques in Comparative Biomedical Sciences (1-4)

May be taken for a max. of 8 hrs. of credit when topics vary. Specialized research techniques related to selected scientific disciplines in the department.

## CBS 7003 Special Topics in Comparative Biomedical Sciences (1-4)

May be taken for a max. of 8 hrs. of credit when topics vary. Specialized coverage of a variety of topics related to selected scientific disciplines in the department.

# CBS 7004 Current Literature in Comparative Biomedical Sciences (1)

*Prereq.: Permission of department.* May be taken for a max. of 6 hrs. of credit. Review of the literature in areas of comparative biomedical sciences presented in a discussion format.

# CBS 7104 Biomedical Cell and Molecular Biology (3)

*Prereq.: consent of instructor.* Essential concepts of cell and molecular biology; cellular ultrastructure and function; basic genetic mechanisms in normal and transformed cells; methods of gene analysis; proteomics; molecular therapy and molecular approaches to disease diagnosis.

# CBS 7108 Critical Analysis in Molecular Biology/Medicine (3)

Instruction/participation; formal presentations of research data. Discussion and presentations are drawn from landmark biomedical publications.

### CBS 7109 Advanced Macroscopic Anatomy (1-3)

*Prereq.: consent of instructor. May be repeated for credit when topics vary.* Specialized dissection of one or more of the following: dog, horse, ruminants, laboratory, exotic or avian species.

### CBS 7112 Advanced Microscopic Anatomy (1-3)

*Prereq.: consent of instructor. May be repeated for credit when topics vary.* Comparative or systemic microscopic anatomy of selected organs or organ systems of domestic, laboratory or exotic species.

### CBS 7200 Basic and Applied Anatomy 1 (3)

*Prereq.: Permission of department.* Principles of macroscopic anatomy, basic structure, and applied anatomy of the bones, muscles, and joints of the thoracic limb, pelvic limb, and trunk; dissection of the dog, with relevant comparisons to the horse and domestic ruminants.

### CBS 7201 Basic and Applied Anatomy 2 (3.5)

*Prereq.: Permission of department.* Introduction to the nervous system; anatomy of the blood vessels and nerves of the thoracic and pelvic limb, the equine digit; comparative anatomy of the head, including the skull and mandible, nasal cavity and paranasal sinuses, ear, oral cavity, teeth, larynx, cranial nerves, surface of the brain and its coverings, and blood supply.

### CBS 7202 Basic and Applied Anatomy 3 (4)

*Prereq.: Permission of department.* Anatomy of the neck and trunk, thoracic and pleural cavities, thoracic viscera; introduction to the autonomic nervous system; the abdominal wall, abdominal viscera, pelvic cavity, and viscera of the urinary and reproductive systems of domestic animals.

### CBS 7203 Cell Biology and Histology (3)

*Prereq.: Permission of department.* Basic cell and tissue biology; glandular and nonglandular epithelia, connective tissue, muscle, hematopoietic tissue, and the cardiovascular, pulmonary, and immune systems of veterinary species.

# CBS 7204 Histology and Developmental Anatomy (4)

*Prereq.: Permission of department.* Continuation of CBS 7203. Cell and tissue biology of the digestive, endocrine, reproductive, integumentary, urinary, visual, and auditory systems; early embryonic development of veterinary species.

### CBS 7603 Clinical Toxicology (3)

*Prereq.: consent of instructor.* Pathophysiology of various clinically important toxicants; prevention, diagnosis and treatment of common intoxications in domestic animals.

### CBS 7614 Central Nervous System (3)

*Prereq.: CBS 7631 or equivalent.* Neurotransmitter mechanisms, chemistry and anatomical distribution; neuropharmacology; synaptic physiology and anatomy of selected brain regions; central nervous system diseases.

### **CBS 7631 Biomedical Neuroscience (3)**

*Prereq.: consent of instructor. 2.5 hrs. lecture; 0.5 hrs. lab.* Physiological and anatomical mechanisms underlying the nervous system.

## CBS 7632 Biomedical Physiology I (3)

*Prereq.: consent of instructor.* Physiological mechanisms underlying muscular, hormonal, and reproductive systems of domestic species.

## CBS 7633 Biomedical Physiology II (3)

Prereq.: consent of instructor.

Physiological mechanisms underlying the cardiovascular and gastrointestinal systems of domestic animals.

### CBS 7634 Biomedical Physiology III (3)

Prereq.: consent of instructor.

Physiological mechanisms underlying the respiratory and renal systems of domestic species; emphasis on system control.

## **Civil Engineering**

#### CE 2200 Fluid Mechanics (3)

*Prereq.: grade of "C" or better in CE 2450.* Statics and dynamics of continuous liquids and gases; control volume laws; conservation of mass, momentum and energy; dimensional analysis and similitude; applications to pipe flows.

#### CE 2250 Fluid Mechanics Laboratory (1)

*Prereq.:* CE 2200 (for CE majors, a grade of "C" or better is required in CE 2200) 3 hrs. lab. Measurement and calibration of hydraulic machinery; pump and turbine efficiency; flow in pipelines; viscosity; discharge coefficients.

#### CE 2450 Statics (3)

Prereq.: grade of "C" or better in MATH 1550, MATH 1552 and PHYS 2110. An Honors course, CE 2451, is available. Credit will not be given for this course and CE 2451. Vectoral treatment of resultants and equilibrium of force systems, centroids and centers of gravity, fluid statics, friction.

#### CE 2451 Honors: Statics (4)

Honors equivalent to CE 2450. Credit will not be given for this course and CE 2450. 3 hrs. lecture; 1 hr. recitation.

#### CE 2460 Dynamics and Vibrations (3)

Prereq.: grade of "C" or better in CE 2450 or CE 2451 and credit or registration in MATH 2065. An Honors course, CE 2461, is available. Credit will not be given for this course and ME 3133 and CE 2461.

Treatment of kinematics and kinetics of particles and rigid bodies; force, movement, velocity, acceleration; impulse and momentum; work and energy; dynamics and vibration; concepts applied to structural and machine components.

### CE 2461 Honors: Dynamics and Vibrations (4)

Honors equivalent to CE 2460. Credit will not be given for this course and CE 2460. 3 hrs. lecture; 1 hr. recitation.

# CE 2700 Introduction to Civil Engineering Practice (1)

Designed for civil engineering majors; open to non-majors by consent of department. Credit will not be given for this course and EVEG 2000. 3 hrs. lab. Civil engineering construction descriptions, principles of drawing and basic technical and professional aspects of civil engineering education and practice.

## CE 3300 Geotechnical Engineering I (3)

*Prereq.:* GEOL 1001, CHEM 1202, CE 2200 (a grade of "C" or better is required in CHEM 1202 and CE 2200). Introduction to properties and engineering behavior of soil as a native earth material, an engineering material and an environmental medium subject to flux and transport of liquids, gases and contaminants; understanding of elementary physical, chemical and biological phenomena as such phenomena influence the engineering behavior of soils.

## CE 3350 Geotechnical Engineering Laboratory I (1)

*Prereq.: EXST 2201 and credit or registration in CE 3300. 3 hrs. lab.* Laboratory measurement of properties, indices and behavior of soil as an engineering material and environmental medium; testing methods to determine gradation, specific shear strength testing, unconfined compression, one-dimensional consolidation, hydraulic conductivity, specific surface area, surface change, x-ray diffraction, pH-redox and conductivity measurements.

#### CE 3400 Mechanics of Materials (3)

Prereq.: grade of "C" or better in CE 2450 or CE 2451. An Honors course, CE 3401, is available. Credit will not be given for this course and CE 3401. Stress and strain, torsion, bending, deflections of beams, columns, statically indeterminate problems, combined stress.

#### CE 3401 Honors: Mechanics of Materials (4)

Honors equivalent to CE 3400. Credit will not be given for this course and CE 3400. 3 hrs. lecture; 1 hr. recitation.

#### CE 3410 Mechanics of Materials Laboratory (1)

*Prereq.: EXST 2201 and CE 3400 (a grade of "C" or better is required in CE 3400). 3 hrs. lab.* Mechanical properties and strengths of engineering materials and structural and machine elements.

#### CE 3415 Structural Analysis I (3)

*Prereq.: MATH 2065 and CE 3400 (a grade of "C" or better is required in CE 3400).* Analysis of statically determinate structures including beams, frames, trusses and arches for the effects of dead, live, moving and windloads.

#### CE 3500 Plane Surveying and Measurements (3)

*Prereq.: EXST 2201 2 hrs. lecture; 3 hrs. lab.* Plane surveying theory of measurements; use of surveying equipment; field and office work for boundary surveys and topographic mapping.

# CE 3600 Principles of Highway and Traffic Engineering (3)

*Prereq.: CE 3500.* Basic traffic characteristics; highway capacity analysis; geometric design of highways; route location, traffic operations and signalized intersection design.

## CE 3700 Engineering Materials Laboratory (1)

*Prereq.: credit or registration in CE 3400 or equivalent. 3 hrs. lab.* Design and properties of concrete and bituminous mixes.

# CE 3740 Independent Studies in Civil Engineering (3)

Prereq.: senior standing, English proficiency and ENGL 3002 (unless ROTC is elected); GPA of at least 2.30 (overall and major area); and consent of department chair. Project chosen in consultation with department chair. Formal proposal and final presentation required. Comprehensive design and/or development of a component, system, process or software package.

## CE 4200 Hydrology (3)

*Prereq.: CE 2200 (a grade of "C" or better is required in CE 2200).* Water movement from arrival on land surface until it reaches the sea overland; concept of frequency, maximum probable runoff of rainfall, mass curves and other statistical methods of hydrologic engineering.

## CE 4250 Ground Water (3)

*Prereq.: CE 2200 (a grade of "C" or better is required in CE 2200).* Occurrence of ground water; properties and classification of water-bearing formations; origin, discharge and methods of evaluating direction and rate of ground water movement; Darcy's Law, Theis Equation, analysis of aquifer tests and "safe yield;" legal doctrines, side effects of aquifer development and the economics of ground water.

## CE 4260 Design of Hydrologic Systems (3)

*Prereq.: EVEG 3200, CE 4200 and CE 4750 or equivalent.* Hydrologic design of water resources projects; maximization of benefits; analysis techniques; and design parameters.

# CE 4300 Geotechnical Engineering II: Shallow Foundations (3)

*Prereq.: CE 3300 and credit or registration in CE 3350 and CE 4410.* Fundamentals of geotechnics applied to design and analysis of shallow foundations, excavations, retaining structures and slopes; selected topics on soil improvement and vibration; emphasis on computer utilization.

# CE 4310 Geotechnical Engineering III: Deep Foundations (3)

*Prereq.: CE 3300 and credit or registration in CE 3350.* Fundamentals of geotechnics applied to design and analysis of deep soil-structure systems; single piles and pile groups under axial load; caissons and piers; effects of lateral loads; computer utilization.

## CE 4320 Coastal Engineering (3)

*Prereq.: CE 3300 or equivalent.* Engineering problems of the coastal zone; coastal processes, wave action, currents, sediment movement; environmental forces due to waves, currents and winds; offshore soil geotechnical properties, vertical and lateral pile capacity; design principles for submarine pipelines and offshore platforms; engineering case studies.

## CE 4400 Principles of Steel Design (3)

*Prereq.: CE 3415.* Analysis and design of elements of steel structures, elastic and plastic design, critical comparison of specifications with theory.

## CE 4410 Principles of Reinforced Concrete (3)

*Prereq.: CE 3415; credit or registration in CE 3700.* Working stress and ultimate strength theories as applied to concrete beams (reinforced and prestressed), columns, slabs and footings; experimental data and current design specifications.

## CE 4420 Principles of Prestressed Concrete (3)

*Prereq.: CE 4410.* Analysis and design of prestressed concrete structural elements; full and partial prestressing; service ability and strength requirements; code criteria for bridges, buildings and other structures.

## CE 4430 Structural Engineering (3)

*Prereq.: CE 4750, CE 4400 and CE 4410 or equivalent.* Fundamental principles applied to planning, analysis and design of structures; introduction to computer-aided design approach to solving structural engineering problems using mainframe and microcomputer software.

## CE 4435 Indeterminate Structural Analysis (3)

*Prereq.: CE 3415.* Analysis of statically indeterminate structures; methods of consistent deformations, elastic energy, virtual work, slope deflection, moment distribution and matrix formulations.

## CE 4440 Advanced Mechanics of Materials (3)

*Prereq.: CE 3400 and MATH 2065 (a grade of "C" or better is required in CE 3400).* Mechanics of materials; emphasis on needs of students interested in structural and machine design.

## CE 4445 Hurricane Engineering (3)

*Prereq.:* CE 3415 and CE 2200 or equivalent. Credit will not be given for both this course and CE 4745. Analysis and design of structures to resist hurricanes and other natural hazards; wind engineering, flood engineering; hazard phenomena and probabilities of occurrence; estimation of loads, loading provisions of major building codes and standards; damage mechanisms; design strategies for life safety and damage mitigation.

### CE 4450 Finite Element Methods (3)

*Prereq.:* CE 3400 and either MATH 2065 or MATH 2090 or MATH 2070 (a grade of "C"or better is required in CE 3400). Basic theory of finite element methods with applications to a wide class of physical problems; matrix representation of stress, strain and material relations; principle of virtual work, discrete finite element models of continuous systems, construction of basic finite element algorithms and solutions of physical problems by using existing finite element computer programs.

## CE 4460 Design of Bridges (3)

*Prereq.:* CE 4410, CE 4750 and credit or registration in CE 4400 or CE 4420 or equivalent. 2 hrs. lecture; 3 hrs. lab. Design of concrete and steel bridges in accordance with the latest AASHTO specifications; understanding of theoretical background behind the codes such as risk and reliability concepts; load rating of bridges and hands-on bridge design using computer software and hand calculations.

## CE 4500 Geodetic and Photogrammetric Surveying (3)

*Prereq.: CE 3500 or equivalent. 2 hrs. lecture; 3 hrs. lab.* Geodetic surveying for control surveys; photogrammetry and photointerpretation; calculation and field procedures used in ground control surveys and photogrammetry.

#### CE 4520 Advanced Surveying (3)

*Prereq.: CE 3500 or equivalent. 2 hrs. lecture; 3 hrs. lab.* Electronic surveying, simultaneous conveyances, subdivision surveys, flood plain management, state plane coordinates, solar azimuths, horizontal and vertical curves and earthwork.

#### CE 4530 Control Surveying with GPS (3)

*Prereq.: CE 3500 or equivalent surveying course. 2 hrs. lecture; 3 hrs. lab.* Understanding of spatial positioning capabilities available using satellite positioning system (GPS) receivers to calculate positions and to evaluate results; topics include classical geodetic methods, geometric geodesy, GPS receivers, static and kinematic GPS surveys, GPS computations, GPS mapping, vertical GPS and gravimetric geodesy; lab includes demonstration and hands-on use of GPS equipment and software.

#### CE 4550 Boundary Surveying (3)

*Prereq.: CE 3500 or equivalent. 2 hrs. lecture; 3 hrs. lab.* Designed to prepare engineers to complete Land Surveyor Registration requirements in Louisiana. Procedures and laws governing surveying of boundaries; emphasis on U. S. Land Survey System and Louisiana surveying laws and grids.

# CE 4560 Engineering Applications of Remote Sensing (3)

*Prereq.: consent of instructor. 2 hrs. lecture; 3 hrs. lab.* Photographic and digital image processes related to interpretation, principles, methods and techniques; engineering applications in materials, land use, energy, hydrology, transportation, geology, geomorphology and water resources.

### CE 4600 Geometric Design of Highways and Airports (3)

*Prereq.: CE 3600 or equivalent. 2 hrs. lecture; 3 hrs. lab.* Principles of design and practice for rural and urban highway facilities and airport installations; design criteria and controls, capacity analysis, cross-section selection, design of horizontal and vertical alignment, intersections, interchanges and computer applications to design problems.

## CE 4650 Introduction to Asphalt Mixture Design (3)

*Prereq.:* CE 3400 and credit or registration in CE 3700 (a grade of "C" or better is required in CE 3400). Principles of design and practice of hot mix asphalt mixture design; fundamental properties and analysis of binder rheology, aggregates and mixture design.

#### CE 4660 Infrastructure Condition Assessment (3)

*Prereq.: CE 3700 or equivalent.* Deterioration mechanisms in civil infrastructure systems, state-of-the-art nondestructive and sensoring technologies and applications, and use of new technologies to optimize infrastructure condition assessment and management.

#### CE 4670 Fundamentals of Pavement Design (3)

*Prereq.: CE 3600 or equivalent.* Flexible and rigid pavement design procedures; subgrade, base and surfacing characteristics; loads; stresses in pavement systems; material characterization; pavement response models; pavement performance models; structural design systems; effects of natural forces; and construction practices.

## CE 4745 Natural Hazards and the Built Environment (3)

*Prereq.: junior standing. Credit will not be given for both this course and CE 4445.* Engineering impacts and implications of hurricanes, floods, earthquakes and other natural hazards on the built environment; effects of hazards on buildings and infrastructure systems; damage mechanisms; principles of wind, flood and seismic resistant design; hurricane evacuation and sheltering; engineering preparedness, response and recovery issues; design strategies for life safety and damage mitigation; building codes, land use zoning, floodplain management and insurance as mitigation tools.

# CE 4750 Professional Issues and Concept Design in Civil Engineering (2)

*Prereq.: CE 2700 and senior standing. 1 hr. lecture; 2 hrs. lab.* Engineering Graphics. Civil engineering design processes and systems; constructability and sustainability; use of consultants and contractors; project management, scheduling; economics and costing; ethical, health and safety; social, political and environmental considerations.

#### CE 4760 Civil Engineering Design (3)

Prereq.: credit in EVEG 3200, CE 3300, CE 3600, CE 4410 or equivalent, CE 4750 and credit in at least one of the following courses: CE 4200, CE 4300, CE 4400, CE 4600 or CE 4670. 2 hrs. lecture; 3 hrs. lab. Design of civil engineering facilities; feasibility studies for subdivisions, airports, shopping centers, interchanges.

# CE 4780 Special Topics in Civil Engineering Science (3)

Prereq.: senior standing and departmental approval. May be taken for a max. of 6 hrs. of credit. More than one section may be taken concurrently for credit if topics differ. Topics in specialized civil engineering technical or analysis areas.

# CE 4781 Special Topics in Civil Engineering Design (3)

Prereq.: senior standing and departmental approval. May be taken for a maximum of 6 hrs. of credit when topics vary. More than one section of this course may be taken for credit concurrently when topics differ. Selected topics in civil engineering design.

# CE 7100 Theory and Operation of Wastewater Treatment Facilities (3)

*Prereq.: EVEG 3110 or equivalent undergraduate preparation, or consent of instructor.* Theoretical principles, design criteria and analysis of treatment systems for domestic and industrial wastewaters and sludges; includes modeling of ideal biochemical reactors and design criteria for suspended-growth and biofilm processes applicable to applicable to wastewater treatment.

# CE 7101 Physical/Chemical Processes in Water and Wastewater Treatment (3)

*Prereq.: EVEG 3110 or equivalent undergraduate preparation.* Theoretical principles, design criteria, and analysis of physical and chemical unit operations in water and wastewater treatment; includes process applications in municipal and industrial settings.

# CE 7105 Advanced Topics in Water Quality and Treatment (3)

Theory and application of advanced chemical principles to water quality and treatment; advanced equilibrium chemistry calculation; redox and colloidal chemistry as applied to environmental engineering.

## CE 7135 Advanced Topics in Biodegradation (3)

Biological waste treatment applications in civil and environmental engineering, including current and emerging techniques for characterization, analysis, control and mathematical modeling of biological processes in municipal and industrial waste treatment systems.

# CE 7145 Biological Treatment of Recirculating Systems in Aquaculture (3)

Theory, design and management of fixed film biofiltration processes used to recondition water in recirculating aquaculture systems and to provide tertiary treatment of domestic and industrial wastes characterized by low substrate regimes.

## CE 7180 Water Quality Simulations (3)

Water quality modeling from a perspective of practicality and reliability; emphasis on model calibration and verification procedures and methodologies for quantifying uncertainties associated with model predictions.

## CE 7255 Advanced Hydraulics (3)

*Prereq.: CE 2200.* Transportation of sediment, mixing current and other phenomena.

# CE 7265 Advanced Subsurface Hydrology and Hydraulics (3)

*Prereq.: CE 4250.* Properties of porous media and fluid mixtures; dynamics of flow in single phase and multiphase flow systems; miscible and immiscible flow; basic concepts in saturated and unsaturated flow; solution procedures and applications in engineering design; physics and mathematics of transport processes in ground water; governing equations, solution procedures and applications; waste management and pollution control in subsurface environments.

# CE 7275 Modeling for Management of Groundwater (3)

*Prereq.: CE 4250.* Identification of management problems; applications of systems theory to develop modeling techniques; analytical and numerical techniques of groundwater modeling; development and application of models and computer codes for simulation and optimization management of surface and groundwater systems.

## CE 7280 Modeling in Physical Hydrology (3)

*Prereq.: CE 4200.* Principles of mathematical physics applied to hydrologic processes; methods of solution and model building; application to water resource problems.

#### CE 7300 Advanced Geotechnical Engineering I: Stress Distribution, Seepage, Compressibility (3)

*Prereq.: CE 3300 and CE 3350.* Advanced theories of soil mechanics including stress distribution, seepage through soils, consolidation and settlement analysis; their applications in foundation engineering.

#### CE 7310 Advanced Geotechnical Engineering II: Shear Strength, Bearing Capacity, Slope Stability (3)

*Prereq.: CE 7300.* Shear strength of cohesive and cohesionless soils; stability problems including bearing capacity, slope stability and earth pressure distribution.

## CE 7315 Principles of Soil Behavior (3)

*Prereq.: CE 3300, CE 3350.* Analysis of the effect of compositional and environ-mental factors on conduction phenomena, volume change behavior, deformation, strength stress-strain-time behavior in soils; soil composition, mineralogy, soil-water electrolyte systems in identification of influencing variables.

## CE 7335 Soil Improvement and Stabilization (3)

*Prereq.: CE 4300.* Methodology and analysis of soil placement and improvement techniques; properties of mineral and organic salts, principles of soil compaction; methods of soil placement and improvement, chemical stabilization of soils, lime columns, stone columns, ultimate strength and bearing capacity of columns, compression by surcharging and drains, dynamic consolidation, vibro stabilization, thermal properties of soils, thermal stabilization.

# CE 7340 Theory and Practice of Geotechnical Laboratory Experiments (3)

*Prereq.:* CE 3300, CE 3350, and CE 4300 or equivalent. 2 *hrs. lecture; 3 hrs. lab* Theory and practice of laboratory experimental techniques used in geotechnical designs and analyses.

## CE 7405 Statically Indeterminate Structures (3)

*Prereq.: CE 4435.* Analysis of statically indeterminate structures by modern methods.

### CE 7409 Advanced Concrete Theory (3)

Analysis and design of reinforced concrete structural elements according to ultimate strength and limit design theories; prestressed indeterminate structures, shrinkage and creep.

#### CE 7410 Structural Reliability (3)

Fundamentals of reliability analysis of structures, load and resistance models, first-order reliability methods, probabilistic simulation techniques, calibration of design codes, system reliability, sensitivity analysis.

#### CE 7420 Limit Analysis and Design (3)

*Prereq.: credit or registration in CE 4435.* Analysis of steel structural behavior beyond elastic limit; design for ultimate load and use of load factors; application of linear programming and other computational techniques to optimization of structures designed by aid of concepts of limit analysis.

### CE 7425 Advanced Bridge Engineering (3)

Recent advancement in bridge engineering in terms of analysis, design, and performance assessment, including both practice and research aspects.

### CE 7430 Structural Design for Dynamic Loads (3)

Sources, intensities and methods of transmission of dynamic loads; response of structural systems to dynamic loading; modern computation techniques.

#### CE 7435 Random Vibrations (3)

Description and characterization of stochastic processes and random fields; classical random vibrations; response of linear elastic structural systems subject to stochastic excitations; structural design of random systems with applications to earthquake engineering and wind engineering.

## CE 7455 Finite Element Method in Engineering (3)

*Prereq.: CE 4450.* Finite element method as an extended Ritz technique based on variational concepts for continua with applications to heat transfer, flow through porous media, fluid dynamics, elasticity, plasticity and stability and vibrations of elastic systems.

## CE 7460 Theory of Plates (3)

*Prereq.: credit or registration in CE 4440.* Laterally loaded plates with various boundary conditions; approximate methods of plate analysis; large deflections of plates; elastic stability of plates.

## CE 7475 Solid Mechanics (3)

*Prereq.:* CE 4440 and credit or registration in MATH 4038 or MATH 4340 or ME 4563. Mathematical approach to statics and dynamics of deformable solids; tensors in curvilinear coordinates and variational calculus used to formulate elasticity and visco-elasticity theory; energy theorems and conservation laws.

### CE 7480 Plasticity and Viscoelasticity: Theory and Applications (3)

*Prereq.: CE 4440.* Elements of the theory of plasticity; yield criteria and stress-strain relations for perfectly plastic and strain hardening materials; boundary value problems of plasticity; the slip-line theory and applications; constitutive equations of viscoelastic bodies and methods of solution of the boundary value problems of viscoelasticity.

#### CE 7485 Mechanics of Composite Materials (3)

*Prereq.: CE 3400.* Modeling of the mechanical behavior of fibrous composites for application to structural components; emphasis on interlaminar stresses, strength and failure theories, thermal effects, nonlinear material response, test methods and micromechanics.

# CE 7490 Damage Mechanics in Metals and Matrix Composites (3)

*Prereq.:* CE 7480 and CE 7485 or equivalent. Theoretical formulation and application of the different constitutive models to metals and metal matrix composites but with consideration of other materials; analysis of isotropic and anisotropic damage in materials.

## CE 7600 Transportation Engineering Data Collection Methods (3)

*Prereq.: EXST 7003 or CE 3600 or equivalent.* Applications of sampling theory to data collections for transportation studies; determination of sample sizes; calculation of sampling error; expansion of sample survey data; survey methodologies, including interviews, counting programs, moving observer surveys, self-administered surveys. Simple panel surveys, etc.; design of survey instruments; conduct of data collection activities; data reduction techniques.

# CE 7610 Traffic Engineering Operations and Control (3)

*Prereq.: CE 3600 or equivalent.* Traffic regulations, operational problems and engineering organization; theory and practice of application, design, operation and maintenance of traffic control devices; methods and devices studied include signing, markings, delineation and illumination, signals and signal systems, one-way street and unbalanced-flow street operations, speed zoning and freeway monitoring and control.

# CE 7615 Advanced Highway Design and Traffic Safety (3)

*Prereq.: CE 4600 or consent of instructor.* Theoretical development and application of highway design principles, particularly as they relate to safety; analysis of accident statistics, diagnosis of high-hazard locations, risk management, tort liability and design treatments to address high accident locations; design principles of traffic calming, highway-railroad grade crossings, highway work zones and roadway cross-sections.

## CE 7621 Mass Transit Systems (3)

*Prereq.: CE 3600 or equivalent.* Historical development, role in society, federal participation and institutional and legislative development of transit; description of conventional and innovative forms, and characteristics of users; planning, vehicle scheduling, environmental impact and energy consumption; system costs, pricing and financing; future systems and policies.

# CE 7640 Urban Transportation Policy and Planning (3)

*Prereq.:* CE 3600 or equivalent. Introduction to and definition of transportation planning; transportation planning context; characteristics of travel; politics, decision-making and models of decision makers; systems analytic approaches to transportation planning; inventory, data management and spatial representation of data; land use and transportation; inputs to travel forecasting.

# CE 7641 Urban Transportation Planning Models (4)

*Prereq.: CE 7640, ECON 5600, EXST 7003 or equivalent. 3 hrs. lecture; 2 hrs. lab.* Theories of travel demand modeling; conventional four-step modeling procedures; network development for highways, transit, highoccupancy vehicles; development of trip generation, distribution and mode-choice models; highway and transit assignment procedures; use of current software for microcomputers.

## CE 7645 Transportation Systems Analysis (3)

*Prereq.: CE 7610 or equivalent.* Quantitative methods for analysis of transportation systems; basic network algorithms; macroscopic and microscopic traffic simulation models; dynamic traffic assignment approaches; network design problems with travel demand uncertainty; optimization concepts in transportation network modeling

## CE 7650 Bituminous Materials and Mixtures (3)

*Prereq.: CE 3700 or equivalent. 2 hrs. lecture; 3 hrs. lab.* Properties of asphalts and tars used in bituminous materials; historical developments; properties and design of bituminous mixtures; theory and practice of asphalt concrete mix design for pavements and bases including specification and construction methods for hot-mixes and surface treatments.

### CE 7655 Pavement Materials Characterization (4)

*Prereq.: CE 3700 or equivalent. 3 hrs. lecture; 3 hrs. lab.* laboratory and field test methods for determining engineering properties of pavement materials; interpretation of test data for selecting property values; use of fundamental engineering properties in design and analysis of pavement response to environmental and vehicular loads.

#### CE 7672 Pavement Management Systems (3)

*Prereq.: CE 3600 or equivalent.* Concepts of pavement, evaluation of pavement performance, serviceability concepts, structural evaluation, safety, maintenance and rehabilitation, economic considerations, selection of alternatives and life cycle cost analysis.

## CE 7700 Special Topics in Civil Engineering (3)

*Prereq.: permission of department. Each course may be taken for a max. of 6 hrs. of credit.* Specialized civil engineering areas.

## CE 7701 Special Topics in Civil Engineering (3)

*Prereq.: permission of department. Each course May be taken for a max. of 6 hrs. of credit.* Specialized civil engineering areas.

### CE 7740 Master's Report (3)

Comprehensive report with oral defense on subject approved by the major professor.

### CE 7750 Seminar (1)

*Pass-fail grading*. All graduate students are expected to enroll every semester. Only one semester hour of credit will be allowed toward degree.

#### **CE 8000 Thesis Research (1-12 per sem.)** "S"/"U"grading.

**CE 9000** Dissertation Research (1-12 per sem.) "S"/"U"grading.

## **Chemical Engineering**

Chemistry, Physics, Life Sciences and Mathematics Proficiency • A grade of "C" or better in each of the basic sciences preparatory courses–BIOL 1201; CHEM 1201 and CHEM 1202; PHYS 2110 and PHYS 2113; MATH 1550, MATH 1552, and MATH 2090–is required before students may register for any chemical engineering course other than CHE 1100 and CHE 2171.

## CHE 1100 Introduction to Chemical Engineering (1)

Overview of what chemical engineers do, including guiding principles of the discipline and basics of large-scale chemical engineering problem solving.

#### CHE 2171 Chemical Engineering Fundamentals: Material and Energy Balances (4)

*Prereq.: MATH 1550, CHEM 1202, and CHE 1100. 3 hrs. lecture; 3 hrs. lab.* Emphasis on basic principles and concepts used to make chemical engineering calculations; techniques used in these calculations applied to typical industrial problems. A three hour computer lab will reinforce lecture material and give practical experience with computer simulation packages.

# CHE 2176 Numerical Methods and Programming for Chemical Engineers (4)

*Prereq.: a grade of "C" or better* CHE 2171 and a grade of "C" or better in BIOL 1201, CHEM 1201, CHEM 1202, MATH 1550, MATH 1552, *MATH 2090 and PHYS 2110 and PHYS 2113. 3 hrs. lecture; 3 hrs. lab* Basic concepts and techniques in analysis of engineering processes; mathematical description of physical systems and application of modern computers to solution of resulting equations. A three-hour computer lab will reinforce lecture material and give practical experience in scripting/programming.

# CHE 3100 Chemical Equilibrium and Kinetics of Environmental Processes (3)

Also offered as EVEG 3120. Prereq.: CHEM 2060; EVEG 2000. Not open to chemical engineering majors. Introductory chemical thermodynamic concepts extended to heterogeneous equilibrium, dilute solutions, surfaces and colloids of significance in environmental engineering processes; chemical reaction kinetics concepts applied to the environment; applications to waste treatment process design; property estimations for elucidating the fate and transport of chemicals in the environment.

# CHE 3101 Transport Sciences: Momentum Transfer (3)

*Prereq.: A grade of "C" or better* CHE 2171 and a grade of "C" or better in BIOL 1201, CHEM 1201, CHEM 1202, MATH 1550, MATH 1552, *MATH 2090*, PHYS 2110 and PHYS 2113. Fundamentals of momentum transfer; applications to the fluid problems of engineering.

# CHE 3102 Transport Sciences: Heat and Mass Transfer (4)

*Prereq.*: A grade of "C" or better in *CHE 3101*. Fundamentals of heat and mass transfer; similarities of heat, mass and momentum transfer and their interrelation; engineering applications.

# CHE 3104 Engineering Measurements Laboratory (3)

Prereq.: credit with a grade of "C" or better or registration in CHE 3102 and CHE 3173. Laboratory work to accompany CHE 3101, CHE 3102, CHE 3172, and CHE 3173. 2 hrs. lecture; 3 hrs. lab.

# CHE 3171 Introduction to Design and Process Safety (3)

*Prereq.*: a grade of "C" or better in *CHE 2176 and credit* with a grade of "C" or better or registration in *CHE 3102 and CHE 3173*. Introduction to process design, equipment selection, capital and operating economics, optimization and process safety.

### CHE 3172 Chemical Engineering Thermodynamics (3)

*Prereq.: a grade of "C" or better in* CHE 2171 and a grade of "C" or better in BIOL 1201, CHEM 1201, CHEM 1202, MATH 1550, MATH 1552, *MATH 2090*, PHYS 2110 and PHYS 2113. Basic concepts and chemical engineering applications of thermodynamics; emphasis on flow processes and real gas thermodynamics.

### CHE 3173 Heterogeneous Equilibrium (3)

*Prereq.: a grade of "C" or better in CHE 3172.* Theory of vapor-liquid, liquid-liquid, and solid-liquid equilibrium, including the effects of chemical reactions; application of thermodynamic theory to the correlation of equilibrium data and the prediction of equilibrium compositions.

## CHE 3900 Independent Research I (3)

An honors course, CHE 3910, is also available. Prereq.: A grade of "C" or better in CHE 2171 and CHE 2176, an overall GPA of at least 3.0, and consent of instructor. Midterm presentation, final presentation, and final written report required. Credit will not be given for both this course and CHE 3910. Individual study of a specific chemical engineering problem or individual laboratory research.

## CHE 3901 Independent Research II (3)

An honors course, CHE 3911, is also available. Prereq.: A grade of "C" or better in CHE 3900, an overall GPA of at least 3.0, and consent of instructor. Midterm presentation, final presentation, final written report, and poster presentation at a recognized scientific event or contribution to a scientific manuscript required. Credit will not be given for both this course and CHE 3911. A continuation of CHE 3900, individual study of a specific chemical engineering problem or individual laboratory research.

## CHE 3910 Honors Independent Research I (3)

Same as CHE 3900 with special honors emphasis. Prereq.: A grade of "C" or better in CHE 2171 and CHE 2176, an overall GPA of at least 3.0, and consent of instructor. Midterm presentation, final presentation, and final written report required. Credit will not be given for both this course and CHE 3900.

#### CHE 3911 Honors Independent Research II (3)

Same as CHE 3901 with special honors emphasis. Prereq.: A grade of "C" or better in CHE 3910, an overall GPA of at least 3.0, and consent of instructor. Midterm presentation, final presentation, final written report, and poster presentation at a recognized scientific event or contribution to a scientific manuscript required. Credit will not be given for both this course and CHE 3901.

#### CHE 4151 Unit Operations Design (4)

*Prereq.: a grade of "C" or better in CHE 3102, CHE 3171, and CHE 3173. 3 hrs. lecture; 3 hrs. lab.* Unit operations analyzed as applications of chemical engineering fundamentals and transport sciences; use of these principles in design calculations.

#### CHE 4162 Unit Operations Laboratory (3)

Prereq.: a grade of "C" or better in CHE 3104 and credit or registration in CHE 4151. 1 hr. lecture; 6 hrs. lab. Obtaining and interpreting data needed to solve typical problems in design or operation of chemical engineering equipment.

#### CHE 4172 Process Design (4)

*Prereq.: CHE 4151 and CHE 4190. 3 hrs. lecture; 3 hrs. lab.* Chemical plant design from initial concept through preliminary estimate; flow diagrams, equipment cost estimation, economic analysis, safety, and environmental issues; computer-aided process design.

### CHE 4190 Chemical Reaction Engineering (3)

Prereq.: a grade of "C" or better in CHE 3102 and CHE 3173 or equivalent. Credit will not be given for both this course and CHE 3100. Basic principles of reactor design; selection of best design alternatives; achievement of optimum reactor operation.

### CHE 4198 Process Dynamics (3)

*Prereq.:* A grade of "C" or better in CHE 3171 and credit or registration in CHE 4151. Principles and practices of process dynamics and automatic control; mathematical modeling of process dynamics, feedback control and feed forward control.

### CHE 4210 Industrial Catalysis (3)

*Prereq.: credit or registration in CHE 4190.* Principles of the industrial utilization of heterogenous catalysis; topics include absorption phenomena, methodology in catalyst preparation, characterization and evaluation of catalysts, diffusion and reaction in porous catalysts and a survey of major industrial processes.

## CHE 4220 Genetic Engineering (3)

Prereq.: a grade of "C" or better in CHE 2171 (or equivalent) and BIOL 1201. Designed for engineers with little or no experience in the biological sciences. Introduction to the basic molecular biology topics including DNA, RNA, and protein synthesis; tools for studying and manipulating macromolecules and the application of these tools.

## CHE 4221 Senior Research (1)

Prereq.: credit with a grade of "C" or better or registration in CHE 3102, CHE 3104 and CHE 3173, GPA of at least 2.8 (in CHE) and consent of instructor. Not open to graduate students. May be taken for a max. of 2 sem. hrs. when topics vary. Comprehensive research or development project of a theoretical or experimental nature, involving a team effort over two semesters (spring and fall periods).

### CHE 4222 Senior Research (2)

Prereq.: CHE 4221 Not open to graduate students. May be taken for a max. of 4 sem. hrs. when topics vary. 6 hrs. lab. Comprehensive research or development project of a theoretical or experimental nature, involving a team effort over two semesters (spring and fall periods).

### CHE 4230 Advanced Process Control Systems (3)

*Prereq.: CHE 4198 or consent of instructor.* Advanced process control tools; modern industrial control technology; process optimization and control; integrated systems control.

## CHE 4253 Introduction to Industrial Pollution Control (3)

Prereq.: a grade of "C" or better in CHE 3102 or equivalent introductory course in transport science. Quantitative application of chemical engineering principles to removal of objectionable components from effluents, with emphasis on industrial processing effluents; currently available techniques for controlling air and water pollution and solid wastes; concept of pollution control through basic process alterations developed by specific examples.

### CHE 4260 Biochemical Engineering (3)

*Prereq.: credit with a grade of "C" or better in CHE* 2176 or equivalent. Application of chemical engineering fundamentals to microbiological and biochemical systems; problems peculiar to industrial operations involving microbial processes; growth conditions and requirements, metabolisms, product separations, enzyme catalysis, sterilization and aseptic operations.

### CHE 4263 Environmental Chemodynamics (3)

Prereq.: a grade of "C" or better in CHE 3102 or equivalent introductory course in transport science. Environmental chemodynamics: interphase equilibrium, reactions, transport processes and related models for anthropogenic substances across natural interfaces (airwater-sediment-soil) and associated boundary regions.

## CHE 4270 Processing of Advanced Materials (3)

*Prereq.: a grade of "C" or better in CHE 3102 or equivalent transport course.* Treatment of coupled chemical reaction and mass, energy and momentum transport in the manufacturing and processing of semiconductors and advanced ceramic materials; engineering models for chemical and physical vapor deposition methods and condensed phase processes.

# CHE 4272 Chemical Processing of Nanomaterials (3)

*Prereq.:* a grade of "C" or better in CHE 3102 or equivalent introductory course in transport science. Chemical engineering principles applied to preparation, handling and applications of nanomaterials. Emphasis will be on manufacturing and processing steps. Case studies will be developed to focus on specific device or material applications.

#### CHE 4275 Electrochemical Engineering (3)

*Prereq.: a grade of "C" or better in CHE 3102 or equivalent.* Introductory course in transport science. Principles of electrochemistry applied to engineering problems; potential distribution theory, kinetics, mass transport and thermodynamic principles; quantification of controlling factors in microfabrication, corrosion, battery design and electrochemical synthesis.

#### CHE 4285 Principles of High Polymers (3)

*Prereq.: a grade of "C" or better in CHE 3172 and CHEM 3491.* Solution and solid-state properties of high polymers; microstructure of polymer chains and effect on macromolecular physical properties of the final plastics.

# CHE 4410 Special Topics in Chemical Engineering Design (3)

*May be taken for a max. of 6 sem. hrs. when topics vary.* One or more phases of current chemical engineering design.

## CHE 4420 Special Topics in Chemical Engineering Science (3)

*May be taken for a max. of 6 sem. hrs. when topics vary.* One or more phases of current chemical engineering science.

# CHE 7100 Chemical Engineering Fluid Mechanics (3)

Foundations of continuum fluid mechanics and the equations of motion; solution methods for lubrication flows, creeping flows, boundary layer problems, laminar flows with strong convection; introduction to selected topics including: turbulence, non-Newtonian fluids, interfacial flows, computational fluid dynamics, microfluidics, particle motion, droplet dynamics.

## CHE 7110 Mathematical Methods in Chemical Engineering (3)

Review of physicochemical problem formulation; analytical and approximate techniques for the solution of linear and nonlinear differential equation models in chemical engineering systems.

#### CHE 7120 Chemical Engineering Thermodynamics (3)

Thermodynamic properties, first and second laws of thermodynamics, entropy, Maxwell relations, and relationship of thermodynamic properties to intermolecular forces; physical equilibrium with emphasis on partial free energy, fugacity, Raoult's law, K-values, equations of state, and activity coefficients; chemical equilibrium and free energies; fundamentals of statistical mechanics.

### CHE 7130 Fundamentals of Heat and Mass Transport (3)

Foundations of heat and mass transport in continua; modeling and solution techniques; transport by diffusion, convection, and turbulence; forced convection; buoyancydriven transport; introduction to computational modeling.

#### CHE 7140 Chemical Reactor Design Methods (3)

Basic principles of chemical kinetics, fluid flow, heat transfer and mass transfer used in design of chemical reactors; chemical equilibria, chemical kinetics, design of isothermal reactors, effects of nonideal flow, nonisothermal reactors and solid-gas catalytic reactions.

### CHE 7314 Optimization (3)

Techniques of optimization including analytical methods, linear and nonlinear programming, geometric and dynamic programming and variational methods with application to systems of interest to chemical engineers.

#### CHE 7542 Catalysis (3)

*Prereq.: CHE 7140 or equivalent.* Heterogeneous catalysis; adsorption phenomena, physical methods, solid state spectroscopies and reaction mechanisms as applicable to fundamental and industrially significant processes.

## CHE 7592 Design Problems in Chemical Engineering (3)

Prior to registration students should discuss a prospective design problem with faculty member under whom they plan to study and obtain departmental approval. Design problem cannot be directly related to student's research. Integration of technology into design of systems or plants for accomplishing specific objectives; emphasis on producing a design package considering technical, economic, manning and scheduling aspects of the project.

# CHE 7700 Advanced Topics in Chemical Engineering (3)

May be taken for a max. of 9 hrs. of credit with consent of *instructor*. One or more phases of advanced chemical engineering practice.

### CHE 7800 Seminar (1)

*Prereq.: graduate standing in engineering. Pass/fail grading.* Full-time graduate students are expected to enroll in this course every fall and spring semester. Only 1 semester hour of credit will be allowed toward degree.

### **CHE 7901 Speaking of Macromolecules (1)** See CHEM 7901.

### CHE 8000 Thesis Research (1-12 per sem.)

"S"/"U"grading.

### CHE 9000 Dissertation Research (1-12 per sem.)

"S"/"U"grading.

## Chemistry

Laboratory Expenses - Students registering for laboratory courses in chemistry are charged a laboratory usage deposit on their fee bill.

Corequisites - A student may not continue in a course if the corequisite course is dropped prior to the last day of the midsemester examination period.

#### **CHEM 1001 Chemical Fundamentals (3)**

[LCCN: CCEM 1103, Chemistry I (Non-Science Majors)] This is a General Education course. *Prereq.: ACT* mathematics score of at least 21 or eligibility for MATH 1021. For those students whose curricula require only one year of chemistry or physical science. Also may be taken as a preparatory course for CHEM 1201. An overview of chemical theory and principles with emphasis on the role of chemistry in the modern world.

## CHEM 1002 Chemistry of Life and the Environment (3)

[LCCN: CCEM 1113, Chemistry II (Non-Science Majors)] This is a General Education course. *Prereq.: CHEM 1001 or CHEM 1201 or CHEM 1421*. An overview of organic chemistry and biochemistry; emphasis on the molecular basis for the biological, materials and environmental sciences.

#### CHEM 1201 General Chemistry I (3)

[LCCN: CCEM 1123, Chemistry I (Science Majors)] This is a General Education course. *Prereq.: credit or registration in MATH 1022, MATH 1023, MATH 1431, MATH 1550 or MATH 1551. Credit will not be given for this course and CHEM 1421. For science/engineering curricula.* Modern chemical theories and principles; quantitative approach and problem solving; descriptive chemistry of selected elements and compounds.

#### CHEM 1202 General Chemistry (3)

[LCCN: CCEM 1133, Chemistry II (Science Majors)] This is a General Education course. *Prereq.: CHEM 1201 or CHEM 1421. Credit will not be given for both this course and CHEM 1422. For science/engineering curricula. Continuation of CHEM 1201.* Additional theory with emphasis on solution chemistry and a quantitative approach; descriptive chemistry of selected elements and compounds from the main groups and the first transition series.

## CHEM 1212 General Chemistry Laboratory (2)

[LCCN:CCEM 1132, Chemistry I+II Lab (Science Majors)] Prereq.: credit or registration in CHEM 1002, CHEM 1202 or CHEM 1422. Credit will not be given for both this course and CHEM 1431. Students registering for laboratory courses in chemistry are charged a laboratory usage deposit on their fee bill. 6 hrs. lab. Basic laboratory operations including selected experiments and introductory inorganic qualitative analysis.

### CHEM 1421 HONORS: General Chemistry (3)

This is a General Education course. *Prereq.: credit or registration in MATH 1550 or MATH 1551. Credit will not be given for both this course and CHEM 1201. Chemistry majors who qualify should take this course. For well-prepared students with a special interest in chemistry.* 

#### CHEM 1422 HONORS: General Chemistry (3)

This is a General Education course. *Prereq.: CHEM 1421* or CHEM 1201 with consent of department chair. Chemistry majors who qualify should take this course. Credit will not be given for both this course and CHEM 1202. Continuation of CHEM 1421.

## CHEM 1431 HONORS: General Chemistry Laboratory (2)

Prereq.: credit or registration in CHEM 1422 or credit or registration in CHEM 1202. Credit will not be given for both this course and CHEM 1212. For chemistry majors and other well-prepared students with special interest in chemistry. Students registering for laboratory courses in chemistry are charged a laboratory usage deposit on their fee bill.

6 hrs. lab/demonstration. Fundamental chemical operations, a selection of experiments and elementary quantitative techniques.

### CHEM 2001 Analytical Chemistry (3)

[LCCN: CCEM 2303, Analytical Chemistry] *Prereq.: CHEM 1202 or CHEM 1422.* Basic principles and practices of modern methods of analysis.

#### CHEM 2002 Analytical Chemistry Laboratory (1)

[LCCN: CCEM 2301, Analytical Chemistry Lab] Prereq.: CHEM 1212 or CHEM 1431; credit or registration in CHEM 2001. Students registering for laboratory courses in chemistry are charged a laboratory usage deposit on their fee bill. 3 hrs. lab. Experiments in modern methods of analysis.

#### CHEM 2060 Survey of Organic Chemistry (3)

[LCCN: CCEM 2203, Organic Chemistry, Survey] Prereq.: CHEM 1202 or CHEM 1422. Credit will not be given for both this course and CHEM 2261 and CHEM 2461. Aliphatic and aromatic compounds; biological aspects of organic chemistry.

#### CHEM 2261 Organic Chemistry (3)

[LCCN: CCEM 2213, Organic Chemistry I] *Prereq.: CHEM 1202 or CHEM 1422. Credit will not be given for both this course and CHEM 2060 and CHEM 2461.* Representative classes of organic compounds; emphasis on varied professional goals of students, e.g., life sciences, physical sciences, engineering.

## CHEM 2262 Organic Chemistry (3)

[LCCN: CCEM 2223, Organic Chemistry II] *Prereq.: CHEM 2261. Continuation of CHEM 2261.Credit will not be given for this course and CHEM 2462.* 

### CHEM 2364 Organic Chemistry Laboratory (2)

[LCCN: CCEM 2222, Organic Chemistry I+II Lab] Same as CHEM 2463. Prereq.: CHEM 1212 and CHEM 2060 or credit or registration in CHEM 2262 or CHEM 2462 Credit will not be given for this course and CHEM 2463. Students registering for laboratory courses in chemistry are charged a laboratory usage deposit on their fee bill. 6 hrs. lab. Fundamental laboratory operations of organic chemistry.

## CHEM 2461 HONORS: Organic Chemistry I (3)

Prereq.: a grade of "A" or "B" in CHEM 1202 or CHEM 1422. Chemistry majors who qualify should take this course. For well-prepared students with a special interest in chemistry. Credit will not be given for this course and CHEM 2060 or CHEM 2261. Studies of structure, mechanism and synthesis in organic chemistry.

## CHEM 2462 HONORS: Organic Chemistry II (3)

Prereq.: CHEM 2461 or a grade of "A" in CHEM 2261. Chemistry majors who qualify should take this course. For well-prepared students with a special interest in chemistry. Credit will not be given for both this course and CHEM 2262. Continuation of CHEM 2461.

# CHEM 2463 HONORS: Organic Chemistry Laboratory (2)

Same as CHEM 2364; primarily for chemistry majors. Credit will not be given for this course and CHEM 2364. Students registering for laboratory courses in chemistry are charged a laboratory usage deposit on their fee bill.

## CHEM 2900 Introduction to Research in Chemistry (1-2)

Prereq.: CHEM 1201 or CHEM 1421. Pass-fail grading. May be taken 6 times for credit; no more than 8 sem. hrs. of credit may be earned in CHEM 2900 and CHEM 3900. By permission of the department. Introduction to chemical research.

## CHEM 3491 Physical Chemistry I (3)

Prereq.: MATH 2057 or MATH 2090; PHYS 1202 or PHYS 2113; and CHEM 1202 or CHEM 1422; all three courses with a grade of "C" or better. Principles of physical chemistry including quantum mechanics, kinetics and thermodynamics.

### CHEM 3492 Physical Chemistry II (3)

Prereq.: CHEM 3491. Continuation of CHEM 3491.

### CHEM 3493 Physical Chemistry Laboratory (3)

Prereq.: PHYS 1209 or PHYS 2109; CHEM 1212 or CHEM 1431; and credit or registration in CHEM 3492. Students registering for laboratory courses in chemistry are charged a laboratory usage deposit on their fee bill. 1 hr. lecture; 6 hrs. lab. Selected experiments to accompany physical chemistry.

## CHEM 3900 Research in Chemistry (1-3)

Coreq.: CHEM 3492. May be taken for a max. of 6 sem. hrs. of credit; no more than 8 sem. hrs. of credit may be earned in CHEM 2900 and CHEM 3900. By permission of the department. Course requires 3 hours of lab work per credit hour. Chemical research under the direction of chemistry faculty mentor. Requires an oral presentation and a report of research work in the format of scientific paper.

#### CHEM 4003 Science Teaching in Secondary School III: Instructional Strategies in Science (1) See BIOL 4003.

#### **CHEM 4004 Seminar in Teaching Secondary School Science (3)** See BIOL 4004.

CHEM 4005 Science Research Methods (3) See BIOL 4005.

### CHEM 4010 Macromolecular Systems I (3)

*Prereq.: CHEM 2262 and CHEM 3492 or BIOL 4001 or equivalent.* 

2 hrs. lecture; 2 hrs. lab. Principles of large molecules and polymeric materials: physical states, morphology, strength, processing; synthesis and biosynthesis; characterization.

#### CHEM 4011 Macromolecular Systems II (3)

*Prereq.: CHEM 4010. 2 hrs. lecture; 2 hrs. lab.* Behavior of large molecules, emphasizing theory and practice of modern and classical methods for molecular characterization.

#### CHEM 4150 Environmental Chemistry (3)

*Prereq.: CHEM 2001 and CHEM 2261 or CHEM 2461 or CHEM 2060* Credit will not be given for this course and ENVS 4101. Applying the fundamentals of quantitative analysis and organic chemistry to understand the natural and human influenced chemical processes that occur in the environment.

#### CHEM 4160 Industrial Organic Chemistry (3)

*Prereq.: CHEM 2262 or CHEM 2462.* Review of major industrial processes with special emphasis on polymer synthesis and applications.

## CHEM 4552 Instrumental Characterization of Organic Compounds (2)

Prereq.: CHEM 2001, CHEM 2002 and credit or registration in CHEM 3491. Molecular analysis using NMR, IR, UV spectroscopy, mass spectrometry and chromatography.

## CHEM 4553 Instrumental Characterization of Organic Compounds Lab (2)

*Prereq.: CHEM 2001, CHEM 2002 and CHEM 4552. Laboratory usage deposit. 6 hrs. lab.* Applications of molecular analysis.

## CHEM 4556 Analytical Spectroscopy (3)

*Prereq.: CHEM 2001 and credit or registration in CHEM 3491.* Basic principles of spectroscopy for chemical analysis emphasizing optical methods: UV/VIS absorbance, fluorescence, vibrational spectroscopy and atomic spectroscopy.

## CHEM 4557 Analytical Separations (3)

*Prereq.: CHEM 2001 and credit or registration in CHEM 3492.* Basic principles of chemical separations emphasizing analytical separations and chromatography. Gas chromatography, liquid chromatography, electrophoresis and related detection techniques.

#### CHEM 4558 Mass Spectrometry (3)

*Prereq.: CHEM 2001 and credit or registration in CHEM 3492.* Fundamentals of mass spectrometry, including ion formation, mass separation, detection and structure determination.

### CHEM 4559 Electroanalytical Chemistry (3)

*Prereq.: CHEM 2001 and credit or registration in CHEM 3491.* Basic principles of electrochemical reactions, electroanalytical voltammetric methods for analysis, the chemistry of heterogeneous electron transfers, electrochemical instrumentation, micro- and nano- electrodes, surface modification for electro-catalysis and sensing.

## CHEM 4561 Physical-Organic Chemistry (3)

*Prereq.: CHEM 2262 or CHEM 2462 and CHEM 3492.* Understanding organic reaction mechanisms and kinetics using basic concepts of molecular orbital theory. Related topics include supramolecular chemistry and noncovalent interactions.

### CHEM 4562 Intermediate Organic Chemistry (3)

*Prereq.: CHEM 2262 or CHEM 2462.* Selected topics in organic synthesis, natural products chemistry, stereochemistry, and organic reactions.

### CHEM 4563 Organic Structure Elucidation (3)

*Prereq.: CHEM 2262 or CHEM 2462.* Focus on interpretation of multiple types of NMR spectra, mass spectra or other spectra relevant to structure elucidation; extensive utilization of actual spectra in problem solving sessions.

# CHEM 4564 Advanced Organic and Inorganic Laboratory (3)

Prereq.: CHEM 2364 or equivalent. Students registering for laboratory courses in chemistry are charged a laboratory usage deposit on their fee bill. 1 hr. lecture; 6 hrs. lab. Organic and inorganic preparations emphasizing modern synthetic methods and modern characterization techniques.

#### CHEM 4570 Inorganic Chemistry (3)

*Prereq.: credit or registration in CHEM* 3492. Principles in advanced inorganic chemistry; modern interpretations.

## CHEM 4571 Organometallic Chemistry (3)

*Prereq.: CHEM 2262 or CHEM 2462 and credit or registration in CHEM 3492.* Chemistry and principles of metal bonds with metal to carbon sigma and pi bonds; bonding concepts, electronic structure, periodic trends and fundamental reaction mechanisms; applications to homogeneous catalysis.

## CHEM 4581 Introduction to Mathematical Chemistry (3)

*Prereq.: MATH 2057 and credit or registration in CHEM 3491.* Mathematical methods of chemistry, with application to selected chemical problems.

## CHEM 4594 Introduction to Quantum Chemistry (3)

*Prereq.: CHEM 3492 and MATH 2057.* Basic ideas of quantum mechanics; application to atomic and molecular structure.

#### CHEM 4596 Chemical Thermodynamics (3)

*Prereq.: CHEM 2262 or CHEM 2462 and CHEM 3492.* Principles of macroscopic thermodynamics and application to systems of chemical relevance.

## CHEM 4597 Introduction to Statistical Thermodynamics (3)

*Prereq.: CHEM 3492 and MATH 2057.* Introductory quantum and classical statistical thermodynamics of some simple systems of chemical relevance.

#### CHEM 6001 Chemistry Instruction Through Demonstration and Experiments (3)

*Prereq.: one year of college chemistry. 2 hrs. lecture; 3 hrs. lab.* Demonstration techniques for junior and senior high school instruction; hands-on experience.

### CHEM 6002 Chemical Principles for Teachers (3)

*For elementary and middle school teachers.* A basic chemistry course with emphasis upon the principles relevant to effective use of educational materials developed by professional societies and national curricular development projects.

#### CHEM 6003 Laboratory Methods for Teachers (3)

For elementary and middle school teachers. 1 hr. lecture; 6 hrs. lab. Analysis of laboratory experiments in current elementary and middle school curricula; selected experiments in modern chemistry.

## CHEM 6691 Seminar in Current Developments in Chemistry (1-3)

Offered in Su *Prereq.: CHEM 1202 or CHEM 1422 or equivalent. May be taken for a max. of 6 sem. hrs. of credit when topics vary.* For high school and junior college teachers; part of the MNS degree program.

## CHEM 7010 Macromolecular Systems III (3)

*Prereq.: CHEM 4010.* Introduction to representative classes of macromolecules; emphasis on polymerization mechanisms and kinetics; advanced polymer synthesis techniques, including synthesis of inorganic polymers, biopolymers and conjugated polymers.

## CHEM 7011 Macromolecular Systems IV (3)

*Prereq.: CHEM 4011.* Structure property relationships for materials such as liquid crystals; polymer blends and block copolymers; polymer nanocomposites and nanotechnology related materials.

### CHEM 7221 Chemical Dynamics and Kinetics (3)

*Prereq.: CHEM 3491 and CHEM 3492.* Theories of chemical reaction rates in the gas phase and in solution; chemical dynamics; gas phase and solution kinetics; applications of kinetics and chemical dynamics to mechanistic studies; modern experimental techniques.

# CHEM 7292 Special Topics in Chemical Physics (2-3)

*May be taken 4 times for credit.* Specialized areas of physical chemistry.

## CHEM 7750 Special Topics in Analytical Chemistry (2-3)

*May be taken 4 times for credit*. Modern methods and techniques of analytical chemistry.

# CHEM 7760 Special Topics in Organic Chemistry (2-3)

*May be taken 4 times for credit.* Specialized areas of current interest in organic chemistry.

# CHEM 7770 Special Topics in Inorganic Chemistry (2-3)

May be taken 4 times for credit. Advanced treatment of areas of current interest in modern inorganic chemistry.

#### CHEM 7780 Special Topics in Macromolecular Chemistry (2-3)

*May be taken 4 times for credit.* Advanced treatment of specialized subjects of importance to current macromolecular research.

## CHEM 7800 Seminar (1)

*Pass-fail grading. May be taken 6 times for credit.* All graduate students are expected to participate in report and discussion groups in field of chemistry of their particular interest.

#### CHEM 7901 Speaking of Macromolecules (1)

Also offered as CHE 7901. Pass-fail grading. May be taken for a max. of 3 sem. hrs. of credit. Multidisciplinary seminar that explores current research concerning macromolecules.

## CHEM 8000 Thesis Research (1-12 per sem.)

"S"/"U"grading. Students who receive 6 hrs. of credit for this course cannot obtain more than 9 hrs. of credit for CHEM 8900.

# CHEM 8900 Procedures and Problems in Chemical Research (1-12)

Pass-fail grading. Open only to students of proven ability or exceptional potential. Students who receive 6 hrs. of credit for CHEM 8000 cannot obtain more than 9 hrs. of credit in this course. Experimental research methods, design and execution of experiments and analysis and correlation of experimental data.

### CHEM 9000 Dissertation Research (1-12 per sem.)

Prereq.: 6 hrs. of credit in CHEM 8000 or CHEM 8900. "S"/"U"grading.

## **Child and Family Studies**

#### CFS 2050 Family Dynamics (3)

A systems approach to examining family processes and development throughout the life span.

## CFS 2065 Management of Family Systems and Services (3)

A systems perspective of contemporary families and their processes including environmental influences, elements of family management and management of school and community resources and services.

## CFS 3055 Development of Young Children in Context (4)

Also offered as EDCI 3055. Prereq.: BIOL 1001. Credit will not be given for both this course and EDCI 3055. 3 hrs. lecture; 2 hrs. field observations. Development of children from prenatal to age eight in the family and other developmental contexts; field observations with infants and toddlers, observations and practical experience in the School of Human Ecology's Preschool Laboratory and in other early childhood settings.

# CFS 3056 Young Children's Cognitive and Linguistic Development (3)

Also offered as EDCI 3056. Prereq.: CFS 3055/EDCI 3055. Credit will not be given for both this course and EDCI 3056. An introductory survey of current theory and research on young children's cognitive and linguistic development; special attention is given to the development of oral language, reading skills and mathematical concepts in young children; emphasis on implications for the early childhood education classroom.

### CFS 3065 Adult-Child Relationships (3)

*Prereq.: CFS 2050 and CFS 3055. For CFS majors only or consent of instructor.* Parent-child and other adult-child interactions and relationships; emphasis on the development and interactive nature of adult-child relationships including the influence of adult-child relationships on child outcomes and adult behavior.

# CFS 3067 Field Experience in Child and Family Studies (3)

Prereq.: CFS 2050 or CFS 2065, credit or concurrent enrollment in CFS 3090, and credit or concurrent enrollment in CFS 3055. For CFS majors only. 6 hrs. field experience per week. Supervised professional experience designed to integrate academic learning with practice.

# CFS 3090 Professional Seminar in Child and Family Studies (2)

Prereq.: credit or registration in CFS 3067. For majors only. Pre-internship seminar.

## CFS 4051 The Adolescent and the Family (3)

*Prereq.: CFS 2050, CFS 2065, CFS 3055 or equivalent. For CFS majors only or permission of instructor.* Growth, development and guidance of the adolescent in the home, family and community.

### CFS 4052 Families: Policy and Law (3)

Prereq.: POLI 2051 or POLI 2070 or HIST 3071 or equivalent. For CFS majors only or permission of instructor. Marriage and family as legal institutions; history and development of family law principles; overview of the public policy process; emphasis on family policy issues.

## CFS 4062 Family Finance and Consumer Law (3)

*Prereq.: ECON 2030 or AGEC 2003 or equivalent.* Development of bases for decision making related to family income, saving, and spending, with special emphasis on low-income families and the working poor.

### CFS 4064 Family Stress Management (3)

*Prereq.: CFS 2050 or CFS 2065. For CFS majors only or permission of instructor.* Strategies used by families to manage stress; current family stress management theory and research.

## CFS 4065 Family Life Education (3)

Prereq.: CFS 2050; CFS 2065; Credit or concurrent enrollment in CFS 3065; for CFS majors only or permission of instructor. Overview of family life education history, philosophy and topics; planning, implementation and evaluation of family life education programs in diverse settings.

# CFS 4067 Internship in Child and Family Studies (8)

Prereq.: CFS 3090, CFS 3055, CFS 3065, and CFS 3067. For CFS majors only, senior standing. 2 hrs. lecture; 12 hrs. practicum. Supervised professional observation and experience in child and family studies.

## CFS 7051 The Contemporary Family (3)

Also offered as EDCI 7051. Credit will not be given for this course and EDCI 7051. Effects of change on family integration; adaptive responses in family lifestyles, roles and relationships to political, social and technological change.

# CFS 7052 Topics and Issues in Family and Consumer Sciences (3)

Also offered as EDCI 7052. Credit will not be given for this course and EDCI 7052. May be taken for a max. of 6 sem. hrs. of credit when topics vary. Lectures and research on topics not covered in other family or consumer science courses.

## CFS 7055 Human Development (3)

*Prereq.: consent of instructor. Also offered as EDCI 7055. Credit will not be given for both this course and EDCI 7055. May be taken for a max. of 6 hrs. of credit when topics vary.* Dynamics of human development and practical implications.

## CFS 7056 Theories of Child Development (3)

Also offered as EDCI 7056. Credit will not be given for both this course and EDCI 7056. Research and theory in child development; relation to the major domains in the child's ecology–child development, the family, services and the environment.

## CFS 7057 Theories in Family Science (3)

Also offered as EDCI 7057. Credit will not be given for both this course and EDCI 7057. Historical and contemporary theories and conceptual frameworks in family science.

## Chinese

### CHIN 1101 Beginning Mandarin Chinese (4)

This is a General Education course. *Persons with prior knowledge of Mandarin may not take this course for credit. Native speakers of Chinese will not receive credit for this course.* Basic lexicon and structure of Chinese; development of speaking and listening skills.

### CHIN 1102 Beginning Mandarin Chinese (4)

This is a General Education course. *Native speakers of Chinese will not receive credit for this course.* Basic lexicon and structure; emphasis on communicative language use.

## CHIN 2001 Intermediate Mandarin Chinese (4)

This is a General Education course. *Prereq.: CHIN 1102. Native speakers of Chinese will not receive credit for this course.* Continuation of the study of basic lexicon and structures of Chinese; emphasis on further development of speaking, writing and reading skills.

### CHIN 2002 Intermediate Mandarin Chinese (4)

This is a General Education course. *Prereq.: CHIN 2001. Native speakers of Chinese will not receive credit for this course.* Continuation of the study of basic lexicon and structures of Chinese; emphasis on further development of speaking, writing and reading skills.

## CHIN 2020 Chinese for Travelers (3)

Credit not applicable to a minor in Chinese. Does not count toward satisfying the foreign language requirement for undergraduates. Basic communication patterns, practical everyday vocabulary, with exercises in comprehension and conversation.

## CHIN 2070 Chinese Cinema (3)

This is a General Education course. Chinese cinema from 1896 to the present; emphasis on the New Chinese cinema since 1980s; screening and analysis of representative films; knowledge of Chinese not required.

#### CHIN 3101 Advanced Chinese (3)

*Prereq.: CHIN 2002 or equivalent.* Introduction of authentic materials of increasing complexity on a variety of topics; emphasis on the use of relatively sophisticated structures of vocabulary in complex communication.

### CHIN 3102 Advanced Chinese (3)

*Prereq.: CHIN 3101 or equivalent.* Introduction of authentic materials of increasing complexity on a variety of topics; emphasis on the use of relatively sophisticated structures vocabulary in complex communication.

#### CHIN 3801 Traditional East Asian Literature (3)

Also offered as JAPN 3801. Taught in English; knowledge of East Asian languages not required. Introduction to the genres, themes and representative works of traditional Chinese and Japanese literature; emphasis on critical reading.

#### CHIN 4915 Independent Work (1-3)

May be taken for a max. of 6 semester hours of credit when topics vary. Permission of department required. Directed readings in classical Chinese or Chinese literature.

## **Classical Studies**

#### CLST 2070 Ancient World in the Cinema (3)

An examination of how the cinema has interpreted the history and myths of Greece and Rome.

#### CLST 2080 Women in Antiquity (3)

*Knowledge of Greek or Latin not required.* The role of women in Greek and Roman society; readings from historical, legal, medical and religious documents.

## CLST 2090 Greek and Roman Mythology (3)

*Taught in English; knowledge of the Greek and Latin languages not required.* Survey of the principal myths of the Greeks and Romans.

#### CLST 2092 Greek and Latin Word Study (3)

No previous knowledge of Greek or Latin required; credit not applicable toward a major in foreign languages. Etymology of common and scientific words derived from Greek and Latin; emphasis on medical terminology.

## **CLST 2101 Ancient Greek Civilization (3)**

This is a General Education course. *Knowledge of Greek and Latin languages not required*. Survey of literature, philosophy, art and culture of ancient Greece from its beginnings to the death of Alexander the Great.

#### CLST 2102 Ancient Roman Civilization (3)

This is a General Education course. *Knowledge of Greek and Latin languages not required.* A survey of the literature, philosophy, art and culture of ancient Rome from its beginnings to the death of Marcus Aurelius.

#### CLST 3020 Classical Epic in Translation (3)

*Knowledge of Greek and Latin languages not required.* Growth and development of the Greek and Latin epic; basic themes, the nature of a hero and relevance to modern reader.

## CLST 3032 Greek and Roman Tragedy in English Translation (3)

*Taught in English; knowledge of Greek and Latin languages not required.* Drama of Greece and Rome; origins, major examples and relevance; plays of Aeschylus, Sophocles, Euripides and Seneca.

## CLST 3040 Greek and Roman Comedy in English Translation (3)

*Knowledge of Greek or Latin languages not required.* Masters of stage comedy from the ancient world, with special attention to Aristophanes, Menander, Plautus and Terence; origins and growth of comedy as an art form; problems in staging; social nature of comedy in the ancient world.

#### CLST 3050 Special Topics in Classical Studies (3)

May be repeated for a max. of 6 sem. hrs. of credit when topics vary. Taught in English, knowledge of Greek and Latin languages not required.

### CLST 3090 Comparative Mythology (3)

Also offered as REL 3090. Introduction to myths from around the world with comparisons to Greek and Roman mythology.

#### CLST 4999 Senior Seminar (3)

*Prereq.: four semesters of Greek or Latin or permission of instructor.* An examination of the influence of the Classical world on Western culture. Focus on literature, history, politics, art and architecture.

## **Construction Management**

A grade of "C" or better is required in all CM courses. Registration in any CM course above CM 2101 is restricted to students admitted to a senior college with a declared CM major or minor.

# CM 1011 Introduction to Construction Management (3)

A survey of the construction industry to include an orientation to essential elements of professional practice and development in construction management.

# CM 1020 Engineering Graphics for Mechanical Engineering (2)

Credit will not be given for both this course and CM 1030. Not open to construction management majors. 4 hrs. lab. Conception, visualization and communication of creative design concepts; introduction to engineering drafting and USA Standards Institute standards; freehand sketching; three-dimensional forms used in solution of engineering problems; use of solid modeling software in design and design communication.

## CM 1030 Honors Engineering Graphics (2)

Same as CM 1020, with special honors emphasis for qualified students. Credit will not be given for both this course and CM 1020. 6 hrs. lab.

## CM 1102 Construction Plan Reading (3)

2 hrs. lecture; 2 hrs. lab. Principles of graphic communication applied to reading construction plans with emphasis on residential, commercial, industrial, and heavy highway plans.

## CM 1112 Construction Materials and Methods I (3)

*Credit will not be given for this and CM 2100.* Principal materials and methods used in building construction, emphasizing common construction systems such as light wood frames, masonry bearing walls, steel frames and reinforced concrete as well as project planning, work methods, materials, equipment, and sustainability. Drawing identification and quantity take off will be introduced.

## CM 2100 Construction Materials and Methods I (3)

Credit will not be given for this course and CM 2101. Intended for post-baccalaureate leveling for non-CM majors. Principal materials and methods used in building construction, emphasizing common construction systems such as light wood frames, masonry bearing walls, steel frames, and reinforced concrete as well as project planning, work methods, materials, equipment, and sustainability.

## CM 2101 Construction Materials and Methods I (3)

*Credit will not be given for this course and CM 2100. Prereq.: CM 1011 and CM 1102.* Principal materials and methods used in building construction, emphasizing common construction systems such as light wood frames, masonry bearing walls, steel frames, and reinforced concrete as well as project planning, work methods, materials, equipment, and sustainability.

## CM 2102 Construction Equipment (3)

*Prereq.: CM 2101.* Overview of construction equipment, including economy, selection, and productivity of common construction equipment for commercial, industrial, and heavy civil construction.

# CM 2103 Construction Materials and Methods II (3)

*Prereq.: CM 1102.* Basic fundamentals of materials and methods used in the industrial and highway construction sectors.

## CM 2105 Construction Surveying (3)

*Prereq.: MATH 1550 and CM 1011. 2 hrs. lecture; 2 hrs. lab.* Principles of construction surveying, fundamental measuring procedures, error analysis, leveling, traverse measurements, horizontal curves, vertical curves, and earthwork calculations.

# CM 2112 Construction Materials and Methods II (3)

Basic fundamentals of materials and methods used in the industrial and highway construction sectors. Drawing identification, quantity take off and BIM will be introduced.

## CM 2113 Construction Equipment (3)

*Prereq.: CM 1112; CM 2112.* Overview of construction equipment, including economy, selection, and productivity of common construction equipment for commercial, industrial, and heavy civil construction.

## CM 2116 Construction Plan Reading (3)

*Prereq.: CM 1112; CM 2112 (CM Majors only) 2 hrs. lecture; 2 hrs. lab.* Principles of graphic communication applied to reading construction plans with emphasis on residential, commercial, industrial and heavy highway plans. Introduction to BIM.

## CM 2215 Construction Safety (3)

Construction safety relating to accident causation; contractual obligations; project management and coordination.

### CM 2500 Structural Principles and Practices (3)

*Credit will not be given for this course and CM 2501. Intended for post-baccalaureate leveling for non-CM majors.* Statics and strengths of materials; design of ordinary timber, steel, and reinforced concrete for construction applications.

### CM 2501 Structural Principles and Practices (3)

Credit will not be given for this course and CM 2500. Prereq.: MATH 1550 or equivalent, or ARCH 1002 or ARCH 1102; and PHYS 2001 or PHYS 2110. Statics and strengths of materials; design of ordinary timber, steel, and reinforced concrete for construction applications.

## CM 3110 Construction Estimating (3)

*Credit will not be given for this course and CM 3111. Intended for post-baccalaureate leveling for non-CM majors.* Fundamentals of estimating including document review, quantity survey, material, equipment, and labor pricing, and bid package preparation for construction projects.

## CM 3111 Construction Estimating (3)

*Credit will not be given for this course and CM 3110. Prereq.: CM 2113, CM 2116 and MATH 1550. 2 hrs. lecture; 2 hrs. lab.* Fundamentals of estimating including document review, quantity survey, material, equipment and labor pricing and bid package preparation for construction projects.

## CM 3145 Commercial Estimating (3)

*Prereq.*: CM 3111. 2 *hrs. lecture;* 2 *hrs. lab.* Principles of estimating including quantity surveys, pricing analysis, and bid package preparation for commercial projects.

### CM 3165 Highway Construction (3)

*Prereq.: CM 2103, CM 2105, and CM 3111.* Basic fundamentals of highway construction including earthmoving, drainage, road paving, bridge and retaining walls, interpretation of plans and specifications, materials, equipment and estimating.

#### CM 3200 Mechanical and Electrical Systems (3)

*Credit will not be given for this course and CM 3201. Intended for post-baccalaureate leveling for non-CM majors.* For residential and commercial buildings; design and construction of building MEP systems; emphasis on basic terminology, equipment and installation procedures, management of the complete MEP process, code compliance, and quality control issues.

### CM 3201 Mechanical and Electrical Systems (3)

*Credit will not be given for this course and CM 3200. Prereq.: PHYS 2002.* For residential and commercial buildings, design and construction of building MEP systems; emphasis on basic terminology, equipment, and installation procedures; management of the complete MEP process, code compliance and quality control issues.

#### CM 3235 Residential Development (3)

*Prereq.: CM 3111.* Introduction to the principles and procedures of residential development. Land development, market research, and residential company start-up practices are explored; focusing on a multi-team based residential project.

## CM 3236 Residential Design Codes and Specifications (3)

*Prereq.: majors only. 2 hrs. lecture; 2 hrs. lab.* A study of residential design theory, techniques, and application as it relates to the International Residential Code for one and two family dwellings.

#### CM 3355 Maintenance and Turnarounds (3)

*Prereq.*: CM 2103. Principles of industrial maintenance and turnarounds including facility types, process equipment, work order systems, safety, preventive maintenance programs, roles, planning, and facility shutdown concepts.

#### CM 3356 Industrial Construction Estimating (3)

*Prereq.:* CM 2103 and CM 3111. 2 hrs. lecture; 2 hrs. lab. Principles of estimating including quantity surveys, pricing analysis, and bid package preparation for industrial construction.

#### CM 3502 Construction and Civil Materials (3)

*Prereq.: CM 2501 and CM 2103.* Fundamentals involved in design, evaluation, testing, and construction of asphalt, concrete, aggregates, steel, and wood.

## CM 3503 Soils in Construction (3)

*Prereq.: CM 2105 and CM 3502.* In depth coverage of engineering behaviors of soil, soil testing, and characterization, pore water pressure, stresses in soil, consolidation, excavation support, shear strength of soil, soil investigation and exploration; compaction, and retaining walls, and construction of shallow and deep foundations.

### CM 3504 Applied Structural Design (3)

*Prereq.:* CM 2501 ; CM 3503 or ARCH 3001 or ARCH 3101. Structural design of ordinary timber, steel, and reinforced concrete buildings and other structures in accordance with appropriate design code specifications; emphasis on contemporary design methodologies and provisions to achieve safe and serviceable resistance to vertical and lateral load effects.

## CM 4100 Construction Scheduling and Cost Control (3)

*Credit will not be given for this course and CM 4101. Intended for post-baccalaureate leveling for non-CM majors.* Fundamentals of planning and scheduling including network-based schedules, resource scheduling, probabilistic scheduling, and computer applications. Project control emphasis on goals, flow of information, time and cost control, and change management.

## CM 4101 Construction Scheduling and Cost Control (3)

Credit will not be given for this course and CM 4100. Prereq.: CM 3111. 2 hrs. lecture; 2 hrs. lab. Fundamentals of planning and scheduling including network-based schedules, resource scheduling, probabilistic scheduling, and computer applications. Project control emphasis on goals, flow of information, time and cost control, and change management.

### CM 4110 Construction Productivity (3)

*Prereq.: CM 4101.* Productivity measurement and improvement; project organization, stakeholders roles, quantifying labor and equipment productivity.

### CM 4202 Construction Enterprise (3)

*Prereq.:* CM 3201 or ARCH 3008, and CM 4101. Senior standing; only for graduating seniors in their last semester of coursework. 2 hrs. lecture; 2 hrs. lab. A comprehensive study of construction management as it relates to a single construction enterprise.

## CM 4206 Special Topics in Construction Management (3)

*May be taken for a max. of 6 sem. hrs. when topics vary.* Advanced topics, current issues or recent developments in the construction industry.

#### CM 4207 Independent Study (3)

*Prereq.: consent of a faculty member. May be taken for a max. of 6 sem. hrs. of credit when topics vary.* Research on a construction topic as chosen by the student under direct supervision of a chosen faculty member.

# CM 4208 Internship in the Construction Industry (3)

Prereq.: consent of instructor. Pass/fail grading. A minimum of 8 weeks of full-time employment (320 hrs. min.) or a minimum of 16 weeks of part-time employment (320 hrs. min.) by a construction company participating in the CM Internship Program. Selected job positions/descriptions in the construction industry.

## CM 4210 Construction Contracting (3)

Credit will not be given for this course and CM 4211. Intended for post-baccalaureate leveling for non-CM majors. Principles and theory of construction company ownership and organization, the estimate and bid process, construction contracts, bonds, insurance, business methods and plans, management, administration, labor law and relations, safety, and avoidance of claims.

### CM 4211 Construction Contracting (3)

*Credit will not be given for this course and CM 4210. Prereq.: junior standing or higher.* Principles and theory of construction company ownership and organization, the estimate and bid process, construction contracts, bonds, and insurance, business methods and plans, management, and administration, labor law and relations, safety, and avoidance of claims.

## CM 4221 Construction Project Management (3)

*Prereq.: CM 4101 and CM 4211.* Field management of a project from inception to completion, including personnel needed, business aspects, estimating and bidding aspects, communication, record keeping, monitoring and control of project, risk and claims management, safety, and close out.

### CM 4302 Sustainable Construction (3)

Prereq.: EVEG 4154 or CM 3502.

*Credit will not be given for this course and ID 4772.* Green building technologies as it applies to residential, commercial and heavy highway construction. Design and construction of high performance structures. Economical and ecological benefits of green buildings. U.S. green LEED, NAHB green guidelines and Green roads.

## CM 4303 Life Cycle Assessment (3)

Prereq.: EVEG 4154 or CM 3502.

Computational structure and data sources for SETAC LCA, input-output LCA and hybrid LCA as tools selects a superior alternative on the basis of pollution prevention and resource conservation.

### CM 4355 Driven Pile Construction (3)

*Prereq.: senior standing and Construction Management major; or consent of instructor.* Materials, construction techniques, and testing procedures used in the driven pile construction industry. Topics include: review of geotechnical parameters and testing methods, crane and hammer equipment selection, common construction practices, pile drivability, pile load testing, and dynamic pile testing.

## CM 4357 Industrial Project Controls (3)

*Prereq.: CM 3356 and CM 4101.* Fundamentals of information management required for effective project control on an industrial construction project; data requirements, data collection, and data processing involved in measuring, evaluating, calculating, and reporting job performance from inception of project through closeout.

## CM 4358 Industrial Electrical Installations (3)

*Prereq.: CM 3201 or ARCH 3008.* Fundamentals of electrical and instrumentation concepts, systems, plans, and installations relevant to industrial facilities and applications.

## CM 7010 Research Methods in Construction Management (3)

*Prereq.: Graduate standing or permission of instructor.* Identification and formation of construction management research problems, design of a research process, research information resources, numerous research methods, data collection and analysis methods, and presentation and dissemination of research results and findings.

## CM 7030 Project Delivery (3)

Advanced concepts of project delivery, including project delivery systems, associated contractual methodologies, roles and responsibility of parties, feasibility analysis, project documentation, effective project execution, risk management and mitigation, and innovative construction practices.

### CM 7110 Advanced Construction Productivity (3)

*Prereq.: CM 4110 or consent of instructor.* A comprehensive systems approach to construction productivity management and advanced improvement methods such as work sampling, crew balance methods, process flow charts, improved project organization, roles of the individual stakeholders, quantifying labor, equipment, and job site productivity, change orders, overmanning, stacking of trades, and other contemporary issues in construction productivity.

### CM 7111 Advanced Construction Scheduling (3)

Advanced techniques in schedule development and implementation for effective project management during the planning and construction phases of a project, including monitoring, updating, and controlling the project schedule and computer software applications.

### CM 7112 Construction Simulation (3)

*Prereq.: consent of instructor.* Decision-making using simulation in the planning and scheduling phases in the construction industry and using simulation languages to model construction operations.

# CM 7150 Decision Making Tools in Construction Management (3)

Reviewing decision-making techniques that can be used by construction managers to assist in making decisions under uncertainty; decision-making techniques include financial and decision theory techniques along with sensitivity analysis; examples drawn from the construction industry as well as engineering.

# CM 7206 Special Topics in Construction Management (3)

*Prereq.: consent of instructor. May be taken for a max. of 9 sem. hrs. when topics vary.* Graduate level advanced topics, current issues or recent developments in the construction industry.

# CM 7207 Independent Study in Construction Management (3)

*Prereq.: consent of instructor. May be taken for a max. of 6 sem. hrs. of credit.* Independent study in specialized areas of construction management. Research on a construction topic as chosen by the student under direct supervision of a chosen graduate faculty member.

## CM 7211 Construction Dispute Resolution (3)

Recognizing the origins of construction disputes, ways to avoid disputes through quality control, communications, and negotiation, and the alternate dispute resolution methods available.

## CM 7213 Soils in Construction (3)

*Prereq.: consent of instructor.* An in-depth understanding of geotechnical principles as it applies to soil construction activities.

### CM 7214 Concrete Materials in Construction (3)

*Prereq.: graduate standing or permission of instructor.* Portland cement concrete materials as it applies to the construction of pavements and structures. Overview of mix proportioning process; fresh and hardened characteristics of concrete and durability parameters; importance for longevity.

# CM 7220 Building Information Modeling for Construction Management (3)

Concepts related to the implementation of BIM in construction projects from the perspective of the general contractor; topics include applications of BIM for visualization, marketing, quantity take-off, scheduling, coordination, and facilities management.

### CM 7230 Lean Construction (3)

Production management-based approach to improve the Architecture/Engineering/Construction (AEC) process and product; lean process foundations, management, measurement, tools/techniques, and practices.

# CM 7250 Natural Hazard Resistant Construction (3)

Materials, construction techniques, and code requirements used in the construction industry to make buildings resistant to natural hazards, including wind, flood, hurricanes, and other hazards; emphasis on construction practices for residential buildings that are sustainable, longterm solutions to our hazard-filled environment.

### CM 7302 Advanced Sustainable Construction (3)

*Prereq.: consent of instructor. Continuation of CM 4302.* Sustainable construction. Emphasis on Green technologies as it applies to construction projects. LEED, NAHB, Green guidelines, Green roads, Green Lites, etc.

# CM 7303 Environmental Life Cycle Assessment (3)

*Prereq.: CM 4303, EVEG 4154, or consent of instructor.* Life Cycle Assessment (LCA) as a science-based technique to guide policy and decision-making that enhances sustainability. Computational structure and data sources for SETAC LCA; Input-output LCA and Hybrid LCA as tools to select a superior alternative on the basis of pollution prevention and resource conservation.

#### CM 8000 Thesis Research (1-12 per sem.) "S/U" grading.

## **Communication Studies**

## CMST 1061 Fundamentals of Communication (3)

[LCCN: CCOM 1013, 2013, 2113, 2213, 2313, Fundamentals of Communication, Public Speaking, Argumentation and Debate, Interpersonal Communication, Business and Professional Communication] This is a General Education course. The practice of rhetoric, performance studies and communication theory; extensive practical and performance applications of communication skills in addition to lectures and readings.

# CMST 1150 Introduction to Communication Studies (3)

*Not a substitute for CMST 1061, CMST 2010, CMST 2040, CMST 2060 or CMST 2064.* Fundamental principles and subject areas in the study of human communication.

### **CMST 2010 Interpersonal Communication (3)**

This is a General Education course. Theories and research in human communication; one-to-one interactions.

## CMST 2012 Introduction to Film (4)

*3 hrs. lecture; 3 hrs. lab.* Nature and function of film as a mode of communication; basic language of cinema; selected films screened and studied.

# CMST 2040 Introduction to Performing Literature (3)

This is a General Education course. The study of literature through performance; reading, analysis and performance of prose, poetry and drama.

### CMST 2060 Public Speaking (3)

This is a General Education course. Theory and skills needed by the effective communicator and critical consumer of speech; analysis of other speakers and practice in speaking.

## CMST 2061 Communication for Business and the Professions (3)

For students in the professional colleges, particularly the *E.J. Ourso College of Business*. Communication used in business and professional organizations; proposal presentations, group decision making, parliamentary procedure and interviewing.

#### CMST 2063 Argumentation and Debate (3)

This is a General Education course. Principles of argumentation and debate; analysis, briefing, evidence, reasoning and refutation; debating on vital questions.

### CMST 2064 Small Group Communication (3)

Aspects of group leadership; group discussion and the problems of communication in human relations.

## CMST 2200 Practicum in Communication Studies (1-3)

Prereq.: permission of department. Pass-fail grading. May be taken for a max. of 3 sem. hrs.; however, no more than a total of 3 sem. hrs. in CMST 2200 and CMST 4200 may be taken for undergraduate credit. Practical experience in major interdepartmental activities outside the classroom under direct faculty supervision.

#### CMST 3012 History of Film (4)

*3 hrs. lecture; 3 hrs. lab.* Historical, cultural, artistic and technological development of the film industry; selected films screened and studied.

### CMST 3013 Topics in Film Genres (4)

May be taken for a max. of 8 sem. hrs. of credit when topics vary. 3 hrs. lecture; 3 hrs. lab. Cultural history, structure, rhetoric and performance of particular film genres.

## **CMST 3040 Performance Composition (3)**

*Prereq.: CMST 2040.* Study of the rhetorical and aesthetic elements of solo and group performance, including performances of literature, cultural performances and experimental performances.

#### CMST 3041 Performance in Everyday Life (3)

Communication-centered study of performance and theatricality in daily life.

### CMST 3060 Advanced Public Speaking (3)

*Prereq.: grade of "B" or better in CMST 1061 or CMST 2060.* Refined development in platform speaking.

#### CMST 3106 Communication and Power (3)

How power is created, maintained and subverted through the strategic use of discourse.

## CMST 3107 Rhetoric of the Contemporary Media (3)

Various forms of media (television, pulp novels, pop music); their promotion of cultural values and modes of conduct; study of major rhetorical critics and theorists.

## CMST 3112 Personal Relationships and Social Networks (3)

How personal relationships exist within a web of other personal and social relationships; examining how thirdparties (whether individuals or social groups) influence the initiation, maintenance, and deterioration of personal relationships and how our personal relationships influence our networks.

#### CMST 3113 Conversation (3)

Analysis of verbal processes in conversation; emphasis on theory and research concerning language, messages and social interaction.

#### CMST 3114 Communication Research (3)

Techniques and procedures in communication research; topic development, research design, data collection, data analysis; examination of recent research in communication.

#### CMST 3115 Communication and Gender (3)

*Prereq.: CMST 2010 or equivalent.* Gender differences, sex roles and sexual stereotypes in communication.

### CMST 3118 Intercultural Communication (3)

*Prereq.: CMST 2010 or equivalent.* Theories and research of how people of different cultures communicate; emphasis on developing a critical sensitivity and foundations for increased effectiveness appropriate to a multicultural society.

#### CMST 3167 Rhetoric and Civilization (3)

Role of oratory in the formation, mobilization and destruction of human communities from ancient to modern times.

#### CMST 3168 Rhetoric of Propaganda (3)

*Prereq.: CMST 2060 or CMST 2063.* Common persuasive strategies employed in propagandistic discourse.

#### CMST 3169 The Rhetoric of Social Movements (3)

*Prereq.:* CMST 2063, CMST 3106, CMST 3107 or CMST 3167. Persuasive strategies used to build social identities and collectively agitate for social change.

## CMST 3210 Computer Mediated Communication (3)

*Prereq.: CMST 2010.* Theories of communication as they apply to communication by computerized means. The effects of CMC on daily human activity, interpersonal relationships and work life.

#### CMST 3300 Rhetorical Criticism (3)

*Prereq.: CMST 2060.* History and practice of criticism as a means of inquiry in rhetorical studies. Theoretical and methodological underpinnings of major schools of criticism examined.

### CMST 3810 Independent Study (1-3)

Prereq.: permission of department. May be taken for a max. of 3 hrs. of credit on a communication topic not duplicated in regular course offerings. Course may be taken for a max. of 6 hrs. of credit in the major.

## CMST 3900 Selected Topics in Communication Studies (3)

Prereq.: consent of instructor. May be taken for a max. of 6 hrs. of credit when topics vary. Consult Schedule of Classes for current offering.

#### CMST 4012 Communication and Relationships (3)

*Prereq.: CMST 2010 or equivalent.* Survey of theories of interpersonal communication and misunderstandings in relational development and deterioration; more effective communication.

## **CMST 4100 Political Communication (3)**

Factors and strategies in contemporary political communication in the U.S.; emphasis on electronic communication, candidates and images, campaign management, speech making and advertising; study of recent and current elections.

#### CMST 4101 Organizational Communication (3)

*Prereq.: CMST 2010.* Theories surrounding how people communicate within the organizational setting, as well as how communication relates to the process of organizing; examines relevant theories and research.

#### CMST 4102 Communication and Careers (3)

*Prereq.: CMST 2010 or equivalent.* Examines theoretical and practical discourses surrounding careers on individual and group levels; includes key career issues: meanings of work, work/life balance, mentorship, career analogies.

## CMST 4107 Communication as Culture (3)

*Prereq.: CMST 3106, CMST 3107 or CMST 3167.* Creation, maintenance and alteration of cultural norms, institutions and values through both mass mediated spectacle and intimate communication ritual.

#### CMST 4111 Intrapersonal Communication (3)

*Prereq.: CMST 2010.* Examination of mental imagery, imagined interaction and listening across a variety of contexts.

#### CMST 4112 Health Communication (3)

Communication in the health care context; application to pragmatic problems in the healthcare industry; critical examination of health messages in popular culture.

## CMST 4113 Communication and Leadership in Teams (3)

Analysis of communication processes in groups and teams; includes examination of theories and research findings; addresses individual and team participation, leadership and decision-making skills.

## CMST 4114 Contemporary Theories of Communication (3)

Current methods and theories of human communication; research literature; behavioral antecedents and consequences of messages and their variations; how messages interact with communicators to produce behavioral outcomes.

## CMST 4118 Modeling Communication Within Marital and Family Relationships (3)

*Also offered as SOCL 4402. Prereq.: CMST 2010.* Role of communication within marriages and other family arrangements.

#### CMST 4119 Nonverbal Communication (3)

*Prereq.: CMST 2010 or equivalent.* Nonverbal message systems such as kinesics and proxemics; relationship between nonverbal and verbal communication.

## CMST 4130 Communication Skills Training and Assessment (3)

Provides students with a theoretically-based understanding of training communication skills.

# CMST 4140 Analysis and Performance of Poetry (3)

*Prereq.: CMST 2040.* Advanced study of selected forms, styles, and genres of oral and written poetry through solo and group performance.

## CMST 4141 Analysis and Performance of Narrative (3)

*Prereq.: CMST 2040.* Advanced study of selected novels, short stories and oral narratives through solo and group performance; stylistic and rhetorical analyses.

## CMST 4142 Selected Topics in Performance Studies (3)

Prereq.: CMST 2040 and CMST 3040 or equivalent. May be taken for a max. of 6 hrs. of credit when topics vary.

### CMST 4143 Performance of Southern Fiction (3)

*Prereq.: CMST 2040 or equivalent.* Study of selected texts of contemporary southern fiction through solo and group performance; literary criticism of texts performed; relevant narrative and performance theory.

## CMST 4144 Performance Art (3)

*Prereq.: CMST 2040 and CMST 3040 or equivalent.* History, theory, criticism and practice of 20th century avant-garde performance and performance art.

### CMST 4145 Group Performance (3)

*Prereq.: CMST 2040 and CMST 3040 or equivalent.* Theory and techniques of adapting and staging nondramatic literature and other materials for group performance; directing for Reader's Theatre, Chamber Theatre, Story Theatre and other forms.

### CMST 4147 Body Performance Culture (3)

*Prereq.: CMST 2040 and CMST 3040 or equivalent.* Theories and uses of the body as a site of cultural production and communication in everyday life and more formal performance events.

## CMST 4150 Tourism as Communication & Performance (3)

Communication and performance-centered study of contemporary tourism and travel.

### CMST 4160 Persuasive Communication (3)

*Prereq.: CMST 1061, CMST 2060, CMST 2063 or equivalent.* Nature of persuasive communication; the role of message, source and recipient factors in persuasive impact.

### CMST 4162 Crime, Communication & Culture (3)

Explores rhetorical dimensions of crime and incarceration in the United States; special attention to historical and contemporary expressions of race, class, gender, sexuality, national identity, etc. in and around the criminal justice system.

## CMST 4165 History and Criticism of American Public Address (3)

*Prereq.: CMST 2060 or CMST 2063 or CMST 4160.* American public address from colonial times to the present; speeches of outstanding American statesmen, lawyers and clergymen and sources of their effectiveness.

## CMST 4167 Contemporary Rhetorical Theory (3)

*Prereq.: CMST 1061 or CMST 2060 or CMST 4160 or equivalent.* Developments in rhetoric from contemporary theoretical and critical perspectives; key concepts in the philosophy of rhetoric.

### CMST 4168 Rhetoric and the Arts (3)

*Prereq.:* CMST 2040, CMST 3041, CMST 3106, CMST 3107 or CMST 3167. The arts as a means of transforming experience and influencing social change.

### CMST 4169 Visual Rhetoric (3)

*Prereq.: CMST 2060 or CMST 2063.* Methodological approaches useful in understanding how images communicate messages and make arguments.

## CMST 4200 Practicum in Communication Studies (1-3)

Prereq.: permission of department. Pass-fail grading. May be taken for a max. of 3 sem. hrs. of undergraduate credit; no more than a total of 3 sem. hrs. of CMST 2200 and CMST 4200 may be taken for undergraduate credit. May be taken for a max. of 9 sem. hrs. of graduate credit in Communication Studies. Practical experience in major interdepartmental activities outside the classroom under direct faculty supervision.

## CMST 4201 Communication Internship (3)

*Prereq.: permission of department. Pass/fail grading.* For students who have a secured internship in a professional area of communication. Preparation, assessment, and mentorship.

## CMST 4312 Topics in Critical Media Theory and Practice (3)

Prereq.: CMST 2012, CMST 3012, CMST 3107 or permission of department. May be taken for a max. of 6 sem. hrs. of credit when topics vary. Topics such as "Basic Concepts of Cinema," "Aesthetics of Film and Video," and "Cyberculture Theory."

#### CMST 4971 Special Topics in Mass Communication (3)

Prereq.: consent of instructor. See MC 4971.

## CMST 7900 Introduction to Graduate Study in Communication Studies (3)

Required of all master's students and of doctoral students on advice of their major professors.

#### CMST 7901 Seminar in Pedagogy for the Communication Classroom (1)

Information and support for first time college teachers; teaching skills; core teaching values and instructional strategies.

### **CMST 7902 Professional Development (1)**

*Pass/fail grading. May be repeated for a max. of 2 sem. hrs. of credit when topics vary.* A CMST core course required of all CMST graduate students in their first two academic semesters; provides information and support for new graduate students.

## CMST 7903 Research Writing in Communication Studies (3)

Professional development seminar for graduate students in Communication Studies. Emphasis on refining research and writing skills for careers in the discipline.

#### CMST 7910 Seminar in Interpersonal Communication Theory (3)

*Prereq.: CMST 4012 or equivalent. May be taken for a max. of 12 hrs. credit when topic vary.* Current theoretical approaches to interpersonal communication, including developmental approaches, cognitive and relational theories.

#### CMST 7911 Communication and the Individual (3)

Prereq.: permission of department. May be taken for a max. of 6 hrs. of credit when topics vary. Current theoretical approaches to the role of the individual in communication. Topics such as individual differences, imagined interaction, and listening.

## CMST 7912 Communication and Relationships (3)

*Prereq.: permission of department. May be taken for a max. of 6 hrs. when topics vary.* Examination of theoretical perspectives and concepts over the life cycle of interpersonal relationships across contexts including relationship types, roles, emotion, conflict, third-party influences, deception, persuasion, and dissolution processes.

#### CMST 7913 Seminar: Communication Theory (3)

May be taken for a max. of 6 hrs. of credit when topics vary. Foundational and contemporary theories in communication.

# CMST 7914 Communication in Health Care Contexts (3)

*Prereq.: permission of department. May be taken for a max. of 6 sem. hrs. of credit when topics vary.* Topics such as interpersonal communication in health care contexts, intersections of family and health communication, and social support and health communication.

## CMST 7915 Seminar: Research in Communication Theory (3)

*Prereq.: CMST 4114 or equivalent. May be taken for a max. of 9 sem. hrs. credit when topics vary.* Research literature on advanced topics in communication theory.

#### CMST 7923 Seminar in Qualitative Research Methods in Communication Studies (3)

*May be taken for a max. of 6 sem. hrs. of credit when topics vary.* Theoretical and practical considerations of current methods of qualitative research in the discipline.

## CMST 7940 Performance Theories and Methods (3)

Survey of theories and methods of twentieth and twentyfirst century performance practices in western cultures.

## CMST 7941 Seminar: Studies in the History of Performance (3)

Historical development of select Western performance practices outside the institution of theatre; methods of historical research in performance studies.

### CMST 7943 Seminar: Performance and Culture (3)

Theories and research exploring the relations between performance and culture central to the field of Performance Studies. Emphasis on two main trajectories: performance as a subject of cultural inquiry and performance as a method of cultural invention.

#### CMST 7944 Performance and Media (3)

May be taken for a max. of 6 sem. hrs. credit when topics vary. Critical, historical and/or creative research in topics related to media in performance in contexts such as media theatre, film, video, television, Internet and virtual reality.

## CMST 7945 Seminar: Contemporary Theories and Research in Performance Studies (3)

May be taken for a max. of 12 hrs. of credit when topics vary. Topics related to solo and group performance of literature; performance theory and criticism; interrelationships of performance and culture; experimental performance forms; qualitative research methods.

# CMST 7946 Theory and Performance of Narrative Discourse (3)

*Prereq.: CMST 4141, CMST 4142 or equivalent.* Narrative theory in literature and performance; rhetoric of narrative discourse.

# CMST 7961 Seminar: Evolution of Rhetorical Theory, Classical Period (3)

### CMST 7962 Seminar: Rhetorical Criticism (3)

Types of speech criticism, criteria and measures of effectiveness of public address.

#### CMST 7965 Rhetoric & Social Theory (3)

Survey of key social theorists relevant to rhetorical theory and criticism.

# CMST 7966 Problems in Rhetorical Theory, Criticism and History (3)

Prereq.: consent of instructor.

May be taken for a max. of 12 sem. hrs. of credit when content varies. Selected problem that goes beyond present advanced course offerings in public address; topic to be announced.

## CMST 7967 Development of Contemporary Rhetorical Theory (3)

Pivotal questions in contemporary theory from I. A. Richards through postmodernism; future of rhetorical theory and its relationship to the humanities.

### CMST 7968 Rhetoric and Public Culture (3)

Scope and function of rhetoric in formation and dissolution of publics and public opinion; the reciprocal influence of rhetoric and culture.

#### CMST 7969 Visual Culture (3)

May be taken for a max. of 6 sem. hrs. of credit when content varies. Intellectual genealogies, theories of the visual and problems in a visual culture.

### CMST 7970 Rhetoric & Citizenship(s) (3)

Addresses the concept of citizenship in rhetorical studies; role of rhetoric in defining citizenship; ways concepts of citizenship include and exclude different communities.

#### CMST 7976 Rhetoric and Aesthetics (3)

The relationship between form and function in rhetorical discourse; the constitutive nature of aesthetics in language and the arts.

# CMST 7998 Professional Practice Projects in Communication Studies (3-6)

*Prereq.: Permission of department. May be taken for a max. of 6 sem. hrs. of credit.* Project-based course for MA students pursuing a field-based, professional practice experience as an alternative to the thesis.

# CMST 7999 Independent Research in Communication Studies (1-3)

*Prereq.: permission of department. May be taken for a max. of 6 sem. hrs. credit.* For advanced graduate students to pursue research on special topics.

## CMST 8000 Thesis Research (1-12 per sem.)

"S"/"U"grading.

**CMST 9000 Dissertation Research (1-12 per sem.)** *"S"/"U"grading.* 

## **Communication Disorders**

### COMD 1751 COMD Goes to the Movies (3)

Introduction to the diverse communication disorders and differences served by the fields of speech-language pathology and audiology (SLP&A) through movies, including how reality may differ from stereotypes.

### COMD 2050 Introduction to Language (3)

This is a General Education course. *Also offered as LING 2050.* Linguistic study of the principal interrelated levels of language structure: phonetics, phonology, morphology, syntax and semantics; related topics such as writing systems and dialects.

## COMD 2051 Introduction to Manual Communication (4)

*3 hrs. lecture; 2 hrs. lab.* Basic linguistic structure, educational and cultural aspects and reading and transmitting messages in manual communication systems; American Sign Language as well as English-based systems.

# COMD 2081 Introduction to Communication Disorders (3)

Required initial course for undergraduates concentrating in speech pathology and audiology. Observations in Speech and Hearing Clinic required. Processes involved in speech production; definition, description and incidence of speech and hearing disorders; overview of the profession, including agencies, related professionals, job opportunities, publications, professional associations and certification.

## COMD 3057 Research Methods for COMD (3)

Introduction to scientific literature and research methods employed in studies of human communication development and disorders across the lifespan.

## COMD 4150 Phonetics (3)

Also offered as LING 4150. Prereq.: COMD 2050. Principles of phonemics; articulatory phonetics; description and classification of sounds; transcription at different levels of detail; production and perception.

## COMD 4153 Acoustics of Speech and Hearing (4)

Also offered as LING 4153. Prereq.: COMD 2050 or equivalent. 3 hrs. lecture; 2 hrs. lab. Production, transmission and perception of speech acoustics in communication; acoustic phonetics and psycho-acoustics.

### COMD 4190 Introduction to Audiology (3)

*Prereq.: COMD 2081 and credit or registration in COMD 4153.* Interaction of hearing and speech, effects of hearing loss on speech and language development, types of hearing loss and evaluation processes.

## COMD 4250 Anatomy and Physiology of Speech and Hearing (3)

*Prereq.: COMD 2050.* Functional anatomy of structures associated with speech production and reception.

# COMD 4380 Speech and Language Development (4)

Also offered as LING 4380. 3 hrs. lecture; 1 hr. lab. Language acquisition and behavior, language and cognitive development, verbal learning and structural properties of speech; theories of language development in the normal child.

### COMD 4381 Basic Articulation Disorders (3)

*Prereq.: COMD 2081, COMD 4150.* Introduction to articulatory physiology, development, etiology, evaluation and treatment of disorders.

### COMD 4382 Basic Language Disorders of Children (3)

*Prereq.: COMD 4380 or equivalent and consent of instructor.* Differential diagnosis and remediation of major language disorders of children.

### COMD 4383 Basic Fluency Disorders (3)

*Prereq.: COMD 4381 or equivalent. For clinical practicum take COMD 4683, COMD 4684 or COMD 4685.* Stuttering and allied disorders; emphasis on symptomatology, testing, rehabilitation and prevention.

# COMD 4590 Auditory Rehabilitation in Children (3)

*Prereq.: COMD 4153, COMD 4190.* Methods of management including modes of communication, auditory and speech-reading training, amplification issues, early identification and intervention and educational placement.

## COMD 4681 Clinical Preparation and Observation Laboratory (1)

*For majors in communication sciences and disorders. 2 hrs. lab.* Study of clinic rules and procedures, codes of ethics; observation of various types of therapy and evaluation.

# COMD 4683 Clinical Practice: Therapeutic Techniques (1-6 each)

Prereq.: credit in course work related to practicum-specific speech, language or hearing disorder. May be taken for a max. of 8 sem. hrs. of credit each. On- and off-campus practica in speech, language and hearing disorders.

# COMD 4684 Clinical Practice: Therapeutic Techniques (1-6 each)

Prereq.: credit in course work related to practicum-specific speech, language or hearing disorder. May be taken for a max. of 8 sem. hrs. of credit each. On- and off-campus practica in speech, language and hearing disorders.

# COMD 4685 Clinical Practice: Therapeutic Techniques (1-6 each)

Prereq.: credit in course work related to practicum-specific speech, language or hearing disorder. May be taken for a max. of 8 sem. hrs. of credit each. On- and off-campus practica in speech, language and hearing disorders.

# COMD 4750 Independent Research in Speech Science or Linguistics (1-3)

Also offered as LING 4750. May be taken for a max. of 3 hrs. of credit. Readings in speech science or linguistics directed by a senior faculty member.

# COMD 4751 Special Topics in Communication Disorders (3)

May be taken for a max. of 6 hrs. undergraduate or graduate credit when topics vary.

# COMD 4752 Survey of Adult Neurogenic Communication Disorders (3)

*Prereq.: COMD 2050.* Biopsychosocial model of health provides structure for study of basic neuroanatomy, assessment, treatment and social consequences of adult neurogenic communication disorders.

# COMD 4753 Undergraduate Seminar in Speech Perception (3)

*Prereq.: COMD 4190.* Not for graduate credit. Introduction to problems in speech perception across the human lifespan, in both typical and atypical listeners.

# COMD 4754 Bilingual Language Development and Disorders (3)

*Prereq.*: COMD 4382. Nature of bilingual language development as well as language and reading disorders of bilingual children.

## COMD 4755 Autism and Augmentative and Alternative Communication (3)

The speech-language pathologist's role in diagnosis, treatment, and advocacy of individuals with autism and those using AAC.

# COMD 7153 Research Design in Communication Science and Disorders (3)

Empirical research design problems in speech and hearing; emphasis on measurement validity and reliability.

# COMD 7281 Acquired Neurogenic Language Disorders (3)

Neuroscience, assessment, and treatment of acquired neurogenic language disorders (aphasia and dementia).

#### COMD 7282 Acquired Neurogenic Cognitive-Communicative Disorders (3)

Neuroscience, assessment, and treatment of acquired neurogenic cognitive communicative disorders (TBI and RHD).

## COMD 7381 Language and Learning Disorders (3)

*Prereq.: COMD 4382.* Language disorders and the communicative aspect of language; current research and treatment models for language intervention; relationship between language and learning; emphasis on school-aged child.

## COMD 7382 Voice Disorders (3)

Incidence, etiology, concomitant problems; assessment and management of vocal dysphonias, aphonias and laryngectomees.

## COMD 7383 Cleft Palate/Orofacial Disorders (3)

*Prereq.: COMD 4250, COMD 4380.* Orofacial anatomy, physiology and embryology; etiology and classification of orofacial cleft; surgical, dental, speech, hearing and psychosocial concomitants and their management.

## COMD 7384 Early Communicative Intervention (3)

*Prereq.: COMD 4382 or equivalent. For clinical practicum, take COMD 7684 or COMD 7685.* Cognitive, social, and environmental conditions associated with "high risk" for communicative disorders; intervention approaches (prevention, evaluation, direct stimulation of child-caregiver interactions) and service delivery models (homebased, center-based).

## COMD 7385 Neuropathologies of Speech (3)

*Prereq.: COMD 4250, COMD 4381 or equivalent.* Physiological and anatomical bases of dysarthria, apraxia and related speech disorders due to neuropathology in the adult population; emphasis on diagnosis, description and clinical management.

# COMD 7480 Measurement and Diagnosis of Communication Disorders (3)

Psychological and behavioral measurement of communicative functioning and treatment planning for common speech/language disorders.

# COMD 7683 Graduate Clinical Practicum (1-6 each)

Prereq.: credit or enrollment in the course dealing with the specific disorder in which practicum is to be taken. May be repeated for credit in order to obtain the clock hours necessary for certification by the American Speech, Language, Hearing Association. Only 6 sem. hrs. of academic credit may be counted toward the degree, although all practicum hours count for professional certification. 2-8 hrs. clinic. On- and off-campus graduate practicum in specific areas (articulation, language, fluency, voice, aural rehabilitation, early intervention, diagnostic audiology, oral-facial anomalies, neurological disorders).

# COMD 7684 Graduate Clinical Practicum (1-6 each)

Prereq.: credit or enrollment in the course dealing with the specific disorder in which practicum is to be taken. May be repeated for credit in order to obtain the clock hours necessary for certification by the American Speech, Language, Hearing Association. Only 6 sem. hrs. of academic credit may be counted toward the degree, although all practicum hours count for professional certification. 2-8 hrs. clinic. On- and off-campus graduate practicum in specific areas (articulation, language, fluency, voice, aural rehabilitation, early intervention, diagnostic audiology, oral-facial anomalies, neurological disorders).

# COMD 7685 Graduate Clinical Practicum (1-6 each)

Prereq.: credit or enrollment in the course dealing with the specific disorder in which practicum is to be taken. May be repeated for credit in order to obtain the clock hours necessary for certification by the American Speech, Language, Hearing Association. Only 6 sem. hrs. of academic credit may be counted toward the degree, although all practicum hours count for professional certification. 2-8 hrs. clinic. On- and off-campus graduate practicum in specific areas (articulation, language, fluency, voice, aural rehabilitation, early intervention, diagnostic audiology, oral-facial anomalies, neurological disorders).

## COMD 7750 Special Topics in Linguistics (3)

Also offered as LING 7750. May be taken two times for credit for the master's degree and four times for the doctorate when topics vary. Topics to be announced.

## COMD 7756 Independent Research: Phonetics and Linguistics (1-3)

Also offered as LING 7756. Prereq.: consent of instructor. May be taken for a max. of 6 sem. hrs. of credit. For advanced graduate students who wish to pursue research on special problems exclusive of thesis or dissertation.

# COMD 7780 Seminar in Communication Disorders (3)

*Prereq.: consent of instructor. May be repeated for max of* 6 sem. hrs. credit when topics vary. Selected topics in communicative disorders.

# COMD 7781 Independent Research: Speech Science (1-3)

Prereq.: consent of instructor. May be taken for a max. of 6 sem. hrs. of credit. For advanced graduate students who wish to pursue research on special problems exclusive of thesis or dissertation.

# COMD 7782 Individual Research in Communication Disorders (1-3)

Prereq.: consent of instructor. May be taken for a max. of 6 sem. hrs. of credit. For advanced graduate students who wish to pursue research on special problems exclusive of thesis or dissertation.

## COMD 7783 Dysphagia (3)

*Prereq.: COMD 4250.* Characteristics, assessment and management of swallowing disorders in children and adults occurring secondary to neurological or structural deficits.

## COMD 7784 Augmentative and Alternative Communication (3)

Use of AAC and related assistive technology to aid individuals with complex communication needs.

# COMD 7880 Advanced Seminar in Language Disorders (3)

*May be taken for max 6 sem. hrs. credit when topics vary.* Theory, contemporary issues and research related to language disorders as a method of inquiry and intervention; evaluation of research methodology.

#### COMD 7882 Advanced Individual Research in Communication Science and Disorders (1-6)

Prereq.: admission to PhD program and consent of instructor. May be taken for a max. of 6 hrs. of credit. Research topics ancillary or extraneous to dissertation research.

**COMD 8000 Thesis Research (1-12 per sem.)** "S"/"U"grading.

**COMD 9000 Dissertation Research (1-12 per sem.)** *"S"/"U"grading.* 

## **Comparative Literature**

### CPLT 2201 Introduction to World Literary Traditions (3)

This is a General Education course. *Also offered as ENGL 2201*. Study of the world's most influential literary classics in Western and non-Western traditions from beginnings to 1650; emphasis on reading and writing about literature.

## CPLT 2202 Introduction to Modern World Literature (3)

This is a General Education course. *Also offered as ENGL 2202.* Overview of the literature of the world from 1650 to the present day; introduction of the concept and theory of world literature.

# CPLT 7010 Research Methods and Bibliography (3)

Instruction in methods of research; specific projects in bibliography geared toward scholarship in comparative literature.

## CPLT 7020 History and Theory of Criticism (3)

Historical survey of major works in literary theory from the classical through the modern period designed to ground subsequent work in criticism.

## CPLT 7120 Topics in Theory of Criticism (3)

May be taken for a max. of 9 hrs. of credit when topics vary. Study of a particular school of critical thought as it applies to specifically comparative literary scholarship.

## CPLT 7130 Topics in Comparative Literature (3)

May be taken for a max. of 9 hrs. of credit when topics vary. Basic techniques of studying a literary topic through the comparative method; examples taken from different national literary traditions.

## CPLT 7140 Topics in the Interdisciplinary Study of Literature (3)

May be taken for a max. of 9 hrs. of credit when topics vary. Relationship between literature and other domains, such as art, religion and film.

#### CPLT 8000 Thesis Research (1-12 per sem.)

"S"/"U"grading.

### CPLT 8900 Independent Study (1-3)

May be taken for a max. of 3 hrs. in the master's program and 9 hrs. in the doctoral program.

**CPLT 9000 Dissertation Research (1-12 per sem.)** *"S"/"U" grading.* 

## **Computer Science**

#### CSC 1100 Computers in Society (3)

Prereq.: credit in MATH 1021 or registration in MATH 1023. Credit will not be given for this course and ISDS 1100 or ISDS 1101 or ISDS 1102 or LIS 2001 or EXST 2000. 2 hrs. lecture; 2 hrs. lab. Introduction to computers, their applications and impact on people and social institutions; the Internet, e-mail, news groups, ftp, telnet, World Wide Web, multimedia, word processing, spreadsheets, databases.

## CSC 1240 Statistics and Graphics with MATLAB (3)

This is a General Education course. *Prereq.: MATH 1021* or placement in MATH 1022, MATH 1023, MATH 1431, MATH 1550 or MATH 1551. Credit will not be given for both this course and CSC 2262 or CSC 2533 or OCS 2011. Not for degree credit for computer science majors. 2 hrs. lecture; 2 hrs. lab. Introduction to MATLAB programming with applications in statistics and graphics.

#### CSC 1250 Introduction to Programming (3)

*Credit will not be given for this course and CSC 1253 or CSC 1350.* Fundamentals of problem solving, program design, algorithms and programming using a high-level language.

### CSC 1253 Computer Science I with C++ (3)

Prereq.: credit or registration in MATH 1550 or credit in MATH 1431. Credit will not be given for both this course and CSC 1250 or CSC 1350.

Fundamentals of algorithm development, program design and structured programming using an object-oriented language.

## CSC 1254 Computer Science II with C++ (3)

*Prereq.: CSC 1253; credit or registration in MATH 1550. Credit will not be given for both this course and CSC 1351.* Develops solutions to problems using an object-oriented approach and emphasizes the concepts of recursion; dynamic memory; data structures (lists, stacks, queues, trees); exception handling.

#### CSC 1350 Computer Science I for Majors (4)

Prereq.: credit or registration in MATH 1022 or MATH 1023 or MATH 1550 or MATH 1551 or MATH 1552. Credit will not be given for both this course and CSC 1250 or CSC 1253. 3 hrs. lecture; 3 hrs. lab. Fundamentals of algorithm development, program design and structured programming using an object-oriented language.

#### CSC 1351 Computer Science II for Majors (4)

Prereq.: CSC 1350; credit or registration in MATH 1550. Credit will not be given for both this course and CSC 1254. 3 hrs. lecture; 3 hrs. lab. Develops solutions to problems using an object-oriented approach and emphasizes the concepts of recursion; dynamic memory; data structures (lists, stacks, queues, trees); exception handling.

#### CSC 2259 Discrete Structures (3)

*Prereq.: credit or registration in CSC 1254 or CSC 1351 and MATH 1552.* Set algebra including mappings and relations; algebraic structures including semigroups and groups; elements of the theory of directed and undirected graphs; Boolean algebra and propositional logic; these structures applied to various areas of computer science.

#### CSC 2262 Numerical Methods (3)

Prereq.: MATH 1552 and CSC 1254 or CSC 1351. Credit will be given for only one of the following: CSC 1240, 2262, CSC 2533 or IE 2060. Computer- oriented methods for solving numerical problems in science and engineering; numerical solutions to systems of simultaneous linear equations, nonlinear algebraic equations (root solving), differentiation and integration, ordinary differential equations, interpolation and curve fitting.

#### CSC 2463 Programming Digital Media (3)

Prereq.: MATH 1021; credit or registration in CSC 1253, CSC 1350, or IE 2060 or ART 2050 or MUS 2732 or permission of instructor. Programming concepts motivated by digital media applications: real-time graphics, audio processing, simple hardware devices, integration of technologies into interactive systems.

## CSC 2533 Introduction to Engineering Computation (3)

Also offered as ME 2533. Prereq.: MATH 1550. Credit will not be given for both this course and CSC 1240 or CSC 2262 or OCS 2011. 2 hrs. lecture; 3 hrs. lab. Problem solving techniques and structured programming tools for engineering synthesis and analysis; application of symbolic solvers and technical computing toolkits.

# CSC 2610 Cloud Fundamentals & Web Programming (3)

*Prereq.:* CSC 1254 or CSC 1351 or ISDS 3107. Characteristics, theory and fundamentals of cloud computing and related technologies; cloud types, services and architectures; principles of application protocols and collaborative web platforms; applications in the areas of mobile and social computing; lightweight programming models; socket programming.

## CSC 2700 Special Topics in Computer Science (1-3)

Prereq.: CSC 1254 or CSC 1351 or permission of department. May be taken for a max. of 6 hrs. of credit when topics vary. Total credit earned in CSC 2700 and CSC 4700 should not exceed 9 hrs. Specialized areas of current interest in computer science.

## CSC 2730 Data Science and Analytics (3)

*Prereq.: CSC 1254 or CSC 1351 or ISDS 3107.* Effective and efficient strategies for data capture; the relational database model, queries, and web programming; data mining and data warehousing process; descriptive statistics and visualization techniques; introduction to computational analysis and multidimensional analysis.

# CSC 3102 Advanced Data Structures and Algorithm Analysis (3)

*Prereq.:* CSC 1254 or CSC 1351 and credit or concurrent enrollment in CSC 2259 or EE 2741. Description and utilization of formal ADT representations, especially those on lists, sets, and graphs; time and space analysis of recursive and nonrecursive algorithms, including graph and sorting algorithms; algorithm design techniques.

## CSC 3200 Ethics in Computing (1)

*Prereq.:* ENGL 1005 or ENGL 2000 or HNRS 2000; CSC 3102. For majors only. Introduction to ethics theory, ethical decision-making as it relates to the computing professional, licensing, intellectual property, conflicts of interest, freedom of information and privacy, security.

## CSC 3380 Object Oriented Design (3)

*Prereq.: CSC 1254 or CSC 1351.* Advanced object oriented software development; emphasis on the use of the unified modeling language as a design tool.

### CSC 3501 Computer Organization and Design (3)

*Prereq.:* CSC 2259. Credit will not be given for both this course and EE 3752 or EE 3755. Computer arithmetic, design of high-speed adders and multipliers, CPU concepts, instruction fetching and decoding, hardwired control, microprogramming control, main memory, I/O organization, assembly language programming techniques, CPU instruction sets and addressing modes.

# CSC 3991 HONORS: Undergraduate Research in Computer Science (3)

*Prereq.: CSC 3102; consent of department; admittance to Upper Division Honors Program.* Individual research on problems in computer science.

# CSC 3992 HONORS: Undergraduate Thesis in Computer Science (3)

*Prereq.: CSC 3991; consent of department; admittance to Upper Division Honors Program.* Writing and formal defense of a research thesis in computer science. Defense committee of three faculty members must be approved by department.

# CSC 3999 Independent Undergraduate Research (1-3)

*Prereq.: consent of department chair. May be taken for a max. of 4 hrs. of credit.* Individual readings, conferences and program development in computer science.

## CSC 4101 Programming Languages (3)

*Prereq.: CSC 3102.* Principles of programming language design; specification of syntax and semantics; underlying implementation of block structured languages; dynamic memory allocation for strings, lists and arrays; imperative versus applicative programming; logic programming; modern programming languages.

## CSC 4103 Operating Systems (3)

*Prereq.: CSC 3102.* Design techniques, process management, processor scheduling; deadlocks, memory management, secondary memory management, file management; I/O systems, Unix systems.

## CSC 4243 Interface Design and Technology (3)

*Prereq.: CSC 1253 or CSC 1350 or equivalent programming background.* Human-computer interaction provides the bridges across which humans engage with computation. An overview and experience with the design of such interfaces. Programming and design projects employing both traditional graphical interfaces; handheld graphical interfaces; and tangible and embedded interfaces. All programming in Java languages.

## CSC 4263 Video Game Design (3)

*Prereq.: ART 2050 or CSC 3102 or MUS 2732 or permission of instructor.* The essentials of video game design and implementation, including planning, graphics, sound, programming and testing. Focus is on a semesterlong, small-team, interdisciplinary project to develop and present a complete full-featured game.

## CSC 4304 Systems Programming (3)

*Prereq.: CSC 4103.* Batch process systems programs, their components, operating characteristics, user services and limitations; implementation techniques for parallel processing of input-output and interrupt handling; overall structure of multiprogramming systems on multiprocessor hardware configurations; addressing techniques, core management, file system design and management, system accounting and other user-related services; traffic control, interprocess communication, design of system modules and interfaces; system updating, documentation and operation.

## CSC 4330 Software Systems Development (3)

*Prereq.: CSC 3102, CSC 3380.* Software requirements analysis; design representation, programming methodologies; verification, validation, maintenance and software planning.

### CSC 4351 Compiler Construction (3)

*Prereq.: CSC 4101 or equivalent.* Program language structures, translation, loading, execution and storage allocation; compilation of simple expressions and statements; organization of compiler including compile-time and run-time symbol tables, lexical scan, syntax scan, object code generation, error diagnostics, object code optimization techniques and overall design; use of compiler writing languages and bootstrapping.

### CSC 4356 Interactive Computer Graphics (3)

*Prereq.*: CSC 3102. Analytical treatment of computer graphics; graphical display and input devices; computer graphics systems and standards; three-dimensional transformations; geometric modeling; lighting; shading; interaction; basic data structures; realism in 3D graphics; future trends.

#### **CSC 4357 Applied Computer Graphics (3)** See ME 4583.

# CSC 4360 Malware Analysis and Reverse Engineering (3)

*Prereq.: CSC 4103 or equivalent.* Legal and ethical issues; categorization of malware; static methods for malware analysis and reverse engineering, including disassembly and decompilation; dynamic analysis strategies including debugging, sandboxes, and binary instrumentation circumvention of obfuscation and anti-analysis techniques.

### CSC 4370 Software Modeling Techniques (3)

*Prereq.:* CSC 4330. Examination of modern modeling techniques for complex/high quality software including static/dynamic software models and project management models.

### CSC 4402 Database Systems (3)

*Prereq.: CSC 3102.* Fundamentals of the relational data model; the SQL query language; E-R modeling and database design theory; storage structures and query optimization; transaction processing and concurrency control.

#### CSC 4444 Artificial Intelligence (3)

*Prereq.: CSC 3102.* Theorem proving and inferencing techniques, production systems, knowledge representation, approximate reasoning, nonmonotonic reasoning, natural language understanding, scene analysis, planning, game playing and learning.

#### CSC 4501 Computer Networks (3)

*Prereq.: CSC 3102.* Introduction to local, metropolitan and wide area networks using the standard OSI reference model as a framework; introduction to the Internet protocol suite and network tools and programming; discussion of various networking technologies.

# CSC 4512 Optimization: Modeling Approaches, Algorithms and Applications (3)

*Prereq.: MATH 2085 or MATH 2090 or permission of instructor.* Optimization as a modeling tool with emphasis on modeling approaches, fundamental algorithms and applications in many diverse domains.

## CSC 4585 Multicore Programming (3)

*Prereq.: CSC 3102.* Multi-core processor architecture; shared-memory programming models; thread-level parallelism; efficient synchronization and performance monitoring; parallel programming design and implementation.

#### CSC 4610 Cloud Systems and Virtualization (3)

*Prereq.:* CSC 2610, CSC 4103, and credit or registration in CSC 4501. Advanced problems and challenges in defining, developing, and building a cloud system; virtualization; open source computing; provisioning; fairness, reliability, security, and monitoring.

#### CSC 4700 Special Topics in Computer Science (3)

Prereq.: CSC 3102 or permission of department. May be taken for a max. of 9 cr. hrs. when topics vary. Total hrs. earned in CSC 2700 and 4700 should not exceed 9 hrs. Specialized areas of current interest in computer science.

## CSC 4740 Big Data Technologies (3)

*Prereq.: CSC 2730.* Advanced analytics and management techniques applied to large-scale datasets; Hadoop/MapReduce, NoSQL and cloud technologies; applied data mining techniques; applications to social, web and mobile data, and bioinformatics.

## CSC 4890 Introduction to Theory of Computation (3)

*Prereq.: CSC 2259.* Introduction to finite automata, regular expressions and languages; push-down automata and context-free languages; selected advanced language theoretical topics; emphasis on technique.

## CSC 4999 Advanced Independent Undergraduate Research (1-3)

*Prereq.: consent of department chair. May be taken for a max. of 4 hrs. of credit.* Individual readings, conferences and program development in computer science.

## **CSC 7080** Advanced Computer Architecture (3) *See EE 7720.*

#### CSC 7090 Design Project (1-9)

*Prereq.*: permission of department. *S/U grading*. Individual design, development, implementation, and documentation of a computer science project addressing a problem in the student's specialization.

## CSC 7101 Programming Language Structures (3)

*Prereq.: CSC 4101.* Advanced study of data specification, storage management and control in programming languages; includes coverage of formal specification languages; languages for concurrent processing; languages that support program verification techniques; and in-depth study of applicative languages.

## CSC 7103 Advanced Operating Systems (3)

*Prereq.: CSC 4103.* Concurrent programming: shared memory, communication and operation-oriented models; concurrent, distributed and network programming; distributed operating systems; synchronization and deadlock detection in distributed systems.

### CSC 7135 Software Engineering (3)

*Prereq.: CSC 4330.* Formal specification techniques, design techniques, abstraction, information hiding, modularity, software testing, automated testing tools, maintainability factors and cost estimation.

## CSC 7150 Program Analysis and Model Checking (3)

*Prereq.*: CSC 4890 or CSC 7101 or equivalent. Automata on infinite objects; Buechi Automata; Muller Automata; Rabin Automata; safety and liveness properties; linear temporal logic (LTL), from LTL to automoata; branching time logics; Knaster-Tarski fixpoint theorem; abstract interpretation.

## CSC 7300 Algorithm Design and Analysis (3)

Characteristics of an algorithm; problems of algorithm existence; the design, implementation and complexity of algorithms; algorithm case studies.

### CSC 7333 Machine Learning (3)

*Prereq.:* CSC 4444. Fundamental principles of machine learning; inductive learning; explanation-based learning; computational approach to Boolean function learning; learning formal languages and recursive theories; neural network learning and genetic algorithms; applications of machine learning.

### CSC 7343 Deep Learning Systems (3)

Deep neural networks, including convolutional and recurrent/recursive neural networks, deep belief networks and autoencoders; related hardware and software support; applications such as image and natural language understanding.

### CSC 7351 Advanced Compiler Design Theory (3)

*Prereq.: CSC 4351 or equivalent.* Automatic generation of LL (1), LR (1), LALR (1) parsers, syntax directed translation of high-level control structures, error recovery, optimization of branching, local code optimization using directed acyclic graphs, loop optimization, global data flow analysis and object-code optimization.

## CSC 7360 Memory Forensics (3)

*Prereq.: CSC 4103 or equivalent.* Memory acquisition strategies; operating systems internals; techniques for locating forensic artifacts in memory; application of memory forensics techniques to incident response, malware analysis, and traditional digital forensics investigations.

## CSC 7402 Data Base Management Systems (3)

*Prereq.:* CSC 4402. Implementation of database systems (physical model and its mapping to conceptual model); data structures and their influence on performance, concurrency control, distributed databases; advanced database systems.

## CSC 7442 Data Mining and Knowledge Discovery (3)

*Prereq.: CSC 7333.* Introduction to data mining and knowledge discovery in databases; data cleaning, statistical techniques, association rule learning; time series and spatial data mining algorithms, clustering algorithms, data visualization.

#### CSC 7443 Scientific Information Visualization (3)

*Prereq.: CSC 7300 or equivalent.* Study of computer visualization principles, techniques and tools used for explaining and understanding information; includes visualization algorithms, techniques and applications.

## CSC 7444 Advanced Artificial Intelligence (3)

*Prereq.: CSC 4444.* Temporal and nonmonotonic logic; truth maintenance systems; probabilistic reasoning; deductive databases; automated learning, planning and tutoring; story understanding; structure of domain dependent expert systems.

### CSC 7481 Information Retrieval Systems (3)

Also offered as LIS 7610. Prereq.: CSC 3102 or equivalent. Topics include commercially available retrieval systems, text content analysis, query processing models and current research problems.

## CSC 7600 High Performance Computing I (3)

*Prereq.: consent of instructor.* Fundamental computational techniques required for scientific computing; important algorithms for parallel computation; high performance computing.

#### CSC 7601 Design Issues in High-Speed Networks: Multicast, Pricing and Control (3)

*Prereq.: CSC 4501.* Multicasting architectures, protocols and applications; ATM and Internet solutions; scalable reliable multicast; distributed sensor networks; Internet pricing and economics of communication; game theoretic approaches to congestion control.

#### CSC 7602 Wireless Networks (3)

*Prereq.: CSC 4501.* Radio systems and ad-hoc wireless networks; relevant concepts in terms of mobility, migration and service levels and their impact on system design; wireless network communication; packet radio techniques; ad-hoc networks; nomadic computing; issues in cellular networks; TCP/IP over wireless.

### CSC 7700 Special Topics in Computer Science (3)

May be taken for a max. of 12 hrs. of credit when topics vary. Specialized areas of current interest in computer science.

#### CSC 7701 Sensor Networking Concepts (3)

*Prereq.: CSC 4501.* Self-organizing sensor networks; querying, and data aggregation; routing; energy-efficient communication protocols; sensor network security.

## CSC 7800 Computer Science Research Seminar (1)

*Pass-fail grading. May be taken for a max. of 2 hrs. of credit when topics vary.* Student presentations and discussions on research topics in computer science.

## CSC 7999 Selected Readings in Computer Science (1-3)

Prereq.: consent of department. "S"/"U" grading. May be taken for a max. of 6 sem. hrs. of credit.

#### CSC 8000 Thesis Research (1-12)

Prereq.: Permission of department. "S"/"U" grading.

#### CSC 9000 Dissertation Research (1-12 per sem.) "S"/"U"grading.

## **Digital Media Arts & Engineering**

Digital Media Arts & Engineering

#### DMAE 7110 Principle Production Workshop (3)

*Prereq.: consent of department. 6 hrs. studio.* Team-based collaborative production using tools and software development methods related to professional digital fields.

#### DMAE 7115 Digital Media Production & Project Management (4)

*Prereq.: consent of department. 3 hrs. lecture; 3 hrs. lab.* Production and management principles encompassing the entire project cycle.

## DMAE 7120 Interactive Design, Rapid Prototyping & Innovation (4)

*Prereq.: consent of department. 3 hrs. lecture; 3 hr. lab.* Students produce and analyze minimum technology thresholds to validate abstract creative concepts in professional media projects.

#### DMAE 7150 Interactive Production Team I (3)

*Prereq.: DMAE 7110 or equivalent. 6 hrs. studio.* Contemporary design challenges analyzed and executed in a team-based collaborative unit; emphasis on management and execution of the entire development cycle.

## DMAE 7155 Advanced Programming & Digital Art I (5)

*Prereq.: DMAE 7120 or equivalent. 4 hrs. lecture; 2 hrs. lab.* Advanced programming and digital arts concepts with an emphasis on contemporary tools and techniques. Students will begin work on a professional portfolio.

## DMAE 7175 Digital Media Internship (3)

Prereq.: Consent of instructor. A minimum of 8 weeks of full-time employment (40 hrs. per week or equivalent) in the media arts industry. Hands-on experience in a professional work environment on a relevant digital media project.

#### DMAE 7250 Interactive Production Team II (3)

*Prereq.: DMAE 7150 or equivalent. 6 hrs. studio.* Interactive team-based collaborative production based on an external client's needs and specifications.

# DMAE 7255 Advanced Programming & Digital Art II (5)

*Prereq.: DMAE 7155 or equivalent. 4 hrs. lecture; 2 hrs. lab.* Advanced programming and digital arts concepts with an emphasis on contemporary tools and techniques. Students will complete a professional portfolio.

#### DMAE 7270 Capstone Production Team (6)

*Prereq.: DMAE 7250 or equivalent. 12 hrs. studio.* Teambased collaborative production that synthesizes a culmination of skills and knowledge through an approved final project.

## **Disaster Science & Management**

## DSM 7000 Policies and Practices of Emergency Management (3)

The evolution of hazard and disaster policies and emergency management organizational practices and their economic, social and environmental impacts; the impacts of natural and man-made hazard and disaster policies, and issues in the public, private and non-profit sectors.

## DSM 7910 Disaster Science and Management Seminar (1)

May be repeated for a max. of 2 sem. hrs. of credit as sessions vary for fall and spring semesters. Reports and discussions with students and faculty concerning a broad range of issues, problems and topics related to natural and man-made hazards, disasters and emergency management.

## **Economics**

#### ECON 2000 Principles of Microeconomics (3)

[LCCN: CECN 2223, Microeconomics] This is a General Education course. *An honors course, ECON 2001, is also available. Credit will not be given for both this course and ECON 2001 or ECON 2030.* Study of how households and firms make decisions and how they interact in specific markets; theories of production price determination, trade, externalities and public goods.

### ECON 2001 HONORS: Principles of Microeconomics (3)

This is a General Education course. Same as ECON 2000, with special honors emphasis for qualified students. Credit will not be given for this course and ECON 2000.

## ECON 2010 Principles of Macroeconomics (3)

[LCCN: CECN 2213, Macroeconomics] This is a General Education course. An honors course, ECON 2011, is also available. Credit will not be given for both this course and ECON 2011 or ECON 2030. Prereq.: ECON 2000 or ECON 2001. Study of economy-wide phenomena, including inflation, unemployment, the monetary system, economic growth, international trade and finance.

### ECON 2011 HONORS: Principles of Macroeconomics (3)

This is a General Education course. Same as ECON 2010, with special honors emphasis for qualified students. Credit will not be given for this course and ECON 2010.

#### **ECON 2030 Economic Principles (3)**

[LCCN: CECN 2113, Economic Principles] This is a General Education course. *An honors course, ECON 2031, is also available. Credit will not be given for both this course and ECON 2000 or ECON 2010 or ECON 2031.* Economic understanding of both micro- and macroeconomic principles; problems associated with monetary policy, fiscal policy, public finance, government and business, labor, international trade, economic growth and comparative economic systems.

#### ECON 2031 HONORS: Economic Principles (3)

This is a General Education course. Same as ECON 2030, with special honors emphasis for qualified students. Credit will not be given for this course and ECON 2030.

## ECON 2035 Money, Banking and Macroeconomic Activity (3)

[LCCN: CECN 2313, Money, Banking & the Economy (Upper Level)] An honors course, ECON 2036, is also available. Credit will not be given for both this course and ECON 2036. Prereq.: ECON 2000 or ECON 2001 and ECON 2010 or ECON 2011 or ECON 2030. Role of commercial banks, other financial institutions and the central bank in affecting the performance of the economy; relationships of money and fiscal policy to prices, production, and employment; internal and external effects of U.S. fiscal and monetary policy.

## ECON 2036 HONORS: Money, Banking and Macroeconomic Activity (3)

Same as ECON 2035, with special honors emphasis for qualified students. Credit will not be given for this course and ECON 2035.

# ECON 3999 Independent Study: Economic Problems (1-3)

May be taken for credit for a max. of 6 sem. hrs. For undergraduate students with a grade point average of 3.00 or above and permission of department. Independent economic research and study under the direction of a faculty member.

## ECON 4070 Economic Growth (3)

*Prereq.: ECON 2000 and ECON 2010; or ECON 2030.* Analysis of the determinants of economic growth through development of theoretical and empirical models of economic growth; discussion of both old and new growth theory and convergence of income levels across countries.

## ECON 4075 American Economic History to 1860 (3)

See HIST 4075.

# ECON 4076 American Economic History: 1860 to the Present (3)

See HIST 4076.

## ECON 4110 Public Finance (3)

*Prereq.: ECON 2000 and ECON 2010; or ECON 2030.* Economic theory applied to the private market and to the public sector; public goods, efficiency, voting, externalities, principles of taxation, benefit-cost analysis and policy analyses of current issues.

### ECON 4130 Urban and Regional Economics (3)

*Prereq.: ECON 2000 and ECON 2010; or ECON 2030.* Economic analysis of the location and growth of urban and regional areas; emphasis on public policy issues; land-use patterns, measurement and change in regional economic activity and urban problems such as transportation, housing and poverty.

#### ECON 4220 Wage and Employment Analysis (3)

*Prereq.: ECON 2000 and ECON 2010; or ECON 2030.* The labor market; labor supply and demand, human capital, racial and sex discrimination, effects of minimum wage laws, causes of various wage and employment differentials.

#### ECON 4290 Sports Economics (3)

Also offered as KIN 4290. Prereq.: ECON 2000 and ECON 2010; or ECON 2030. Microeconomic principles used to examine the sports industry; topics include sports leagues and organizations, revenue sharing, ticket pricing, advertising and broadcasting rights, competitive balance, antitrust policy, image and integrity, economic impact of sporting events, and other aspects.

### ECON 4320 Environmental Economics (3)

*Prereq.: ECON 2000 and ECON 2010; or ECON 2030.* Market failure and government failure, benefit cost analysis, the economics of energy, the efficient allocation of pollution, stationary and mobile source air pollution, water pollution and toxic wastes.

### ECON 4325 Applied Resource Economics (3)

*Prereq.: ECON 2000 and ECON 2010; or ECON 2030.* Analysis of environmental and resource problems; costbenefit and other empirical techniques used to examine these problems.

# ECON 4400 Industrial Organization and Public Policy (3)

*Prereq.: ECON 2000 and ECON 2010; or ECON 2030.* Theory of the firm, perfect competition, monopoly, collusion and collusive strategies, strategic interaction, auctions, durable goods, predation, antitrust and experimental economics.

## ECON 4421 Health Care Economics (3)

*Prereq.: ECON 2000 and ECON 2010; or ECON 2030.* Economics of health care with particular emphasis on hospitals, physicians and other health care providers, as well as government programs.

## ECON 4445 Internship in Economics (3)

*Prereq.: permission of department. Pass-fail grading.* On-the-job experience in approved positions with economic content.

## ECON 4520 International Trade (3)

*Prereq.: ECON 2000 and ECON 2010; or ECON 2030.* Introduction to the basic theories of international trade including classical, neoclassical and post-neoclassical theories; discussion on how these theories relate to current economic events and policies; brief overview of major U.S. trade law; overview and analysis of major bilateral and multilateral trading agreements including the North American Free Trade Agreement, the European Union and the World Trade Organization.

### ECON 4550 International Finance (3)

*Prereq.: ECON 2035 or equivalent.* Exchange rates and the foreign exchange market; exchange rate determination in the short run and in the long run; alternative international currency systems, macroeconomic policy coordination under fixed and floating exchange rates.

# ECON 4560 Central Banking and Monetary Policy (3)

*Prereq.: ECON 2035.* History, economic functions, operating techniques and policies of central banks; the role of monetary policy in promoting economic stability and growth; the Federal Reserve System and current problems of monetary policy and control.

# ECON 4610 Introduction to Mathematical Economics (3)

*Prereq.: ECON 2000 and ECON 2010, or ECON 2030; and college algebra or equivalent. Not normally open to students who have had differential calculus.* Mathematical techniques used by economists; their application to economic analysis.

# ECON 4610 Introduction to Mathematical Economics (3)

*Prereq.:* (ECON 2000 or ECON 2001) and (ECON 2010 or ECON 2011), or ECON 2030, or ECON 2031. Mathematical principles with frequent applications to economics; functions, derivatives, differentials, integrals, Taylor's series, matrix algebra, determinants, roots, quadratic forms, constrained and unconstrained optimizations and principles of linear and nonlinear equation systems.

## ECON 4620 Game Theory and Applications (3)

*Prereq.: ECON 2000 and ECON 2010; or ECON 2030.* Methods to analyze optimal or strategic behavior in situations with multiple interactive decision makers. Topics range from the formal analysis of parlor games, cold war, auctions, voting behavior to pricing decisions of firms.

### ECON 4630 Introduction to Econometrics (3)

Prereq.: ECON 2000 or ECON 2001 and ECON 2010 or ECON 2011, or ECON 2030 or ECON 2031; MATH 1431 or MATH 1550; and ISDS 2000 or ISDS 2010 or EXST 2201 Not open to students with credit in ECON 7630. For students interested in a basic knowledge of econometrics. Techniques of econometrics; estimating the basic linear model and hypothesis testing; empirical illustrations by reference to contemporary economic questions.

## ECON 4631 Econometric Methods (3)

*Prereq.: ECON 4630.* Applications of econometric methods; treatment of heteroskedacity, autocorellation, and generalized least squares; the use of instrumental variables and two-stage least squares for models with endogeneity, simultaneous equations, regression using time-series data, the analysis of panel data, binary and multinomial choice models, and models for simple selection.

## ECON 4633 Time Series Data Analysis (3)

*Prereq.: ECON 4630.* Applications of methods used in business and economic forecasting; economic and financial time-series modeling, regression analysis and combination forecasting.

## ECON 4710 Aggregate Economic Analysis (3)

*Prereq.: ECON 2035 or equivalent.* The focus is on the factors determining the aggregate level of national income, employment and prices; models of business cycles and long-run growth are developed and compared and the macroeconomic effects of monetary and fiscal policy are analyzed.

# ECON 4720 Intermediate Microeconomic Theory (3)

*Prereq.: ECON 2000 and ECON 2010; or ECON 2030.* Price determination, resource allocation and pricing in a market economy.

ECON 4900 Selected Topics in Economics (3) Prereq.: ECON 2000 and ECON 2010; or ECON 2030.

May be taken for a max. of 6 sem. hrs. when topics vary.

# ECON 5600 Microeconomic Theory for Policy Analysis (3)

Also offered as PADM 5600.

## ECON 7071 Economic Growth (3)

*Prereq.: ECON 7718.* Long run economic growth at an advanced graduate level with focus on both theoretical and applied approaches to explaining the central question in economic growth- the sources of cross-country income differences, role of various factors such as technological progress, factor accumulation, labor markets, institutions, and international trade on economic growth.

### ECON 7240 Seminar in Labor Economics (3)

Theoretical and empirical effects of trade unions and other labor organizations on individuals, firms, government policies and the economy.

## ECON 7255 Labor Economics (3)

Neoclassical wage and employment theory and its application to the labor market; labor markets, human capital, job search models, globalization, and inequality.

# ECON 7260 Seminar in Applied Microeconomics (3)

Empirical microeconomic research tools, state-of-the-art methods and subjects in applied microeconomics including topics in labor, health, public economics, and law and economics.

# ECON 7320 Seminar in Environmental and Resource Economics (3)

Market failure and government failure, non-market valuation techniques, benefit cost analysis, the economics of energy, the efficient allocation of pollution, stationary and mobile source air pollution, water pollution and toxic wastes, environmental policy analysis.

### ECON 7420 Health Care Economics (3)

*Prereq.: ECON 4720 or equivalent.* Economics of health care with particular emphasis on demand and supply of health care services; roles of insurance and government in provision of health care services.

## ECON 7590 Seminar in Monetary and Fiscal Policy (3)

*Prereq.: ECON 7717 or ECON 7718 and ECON 7631.* Determining, implementing and evaluating monetary and fiscal policy; estimating the effect of monetary and fiscal policy on the economy.

# ECON 7591 Advanced Topics in Macroeconomics (3)

Prereq.: ECON 7718 and ECON 7719 and permission of department. May be taken for a max. of 6 sem. hrs. of credit when topics vary.

### ECON 7610 Mathematics for Economists (3)

Mathematical principles with frequent applications to economics; functions, derivatives, differentials, integrals, Taylor's series, matrix algebra, determinants, roots, quadratic forms, constrained and unconstrained optimizations and principles of linear and nonlinear equation systems.

## ECON 7629 Applied Econometrics (3)

*Prereq.: ECON 2000 and ECON 2010 or ECON 2030; MATH 1431 or equivalent; ISDS 2000 or equivalent.* A survey of methods used in analyzing cross-sectional, timeseries, and panel data, including least squares estimation, generalized least squares, two-stage least squares, simultaneous equations, panel data, and qualitative choice models.

## ECON 7630 Econometric Methods (3)

Prereq.: calculus and linear algebra or concurrent enrollment in ECON 7610. For students interested in developing research skills in econometrics. Probability theory; distributions of random variables and their properties; mathematical expectation; estimation using method of moments, least squares, maximum likelihood; Bayesian methods; asymptotic theory; numerical optimization and simulation; bootstrapping; hypothesis testing.

## ECON 7631 Econometric Methods II (3)

*Prereq.: ECON 7630 or equivalent.* Econometric techniques of regression; heteroskedasticity; regression with time series data; autocorrelation; random regressors and moment based estimation; instrumental variables; generalized method of moments and systems of equations.

## ECON 7632 Microeconometrics (3)

*Prereq.: ECON 7631 and either ECON 7610 or differential calculus and linear algebra.* Emphasis on the analysis of models for panel data; fixed and random effects and dynamic panels; models for qualitative, choice, and count data; models for limited or partially observed dependent variables.

### ECON 7633 Dynamic Econometric Theory (3)

*Prereq.: ECON 7631.* Time-series analysis; testing and model selection; distributed lags; dynamic properties of simultaneous equation model; autoregressive and moving average process; nonstationarity; autoregressive conditional heteroskedasticity; causality and exogeneity; unit root, cointegration and error correction.

### ECON 7701 Introduction to Advanced Microeconomics (3)

Development of microeconomic models of the individual and firm, including a nonmathematical approach.

### ECON 7702 Advanced Microeconomics I (3)

Technology, profit maximization, profit function, cost minimization, cost function, utility maximization, choice, demand, consumer surplus, competitive markets, exchange, and production.

### ECON 7703 Advanced Microeconomics II (3)

*Prereq.: ECON 7702.* Uncertainty, monopoly, oligopoly, game theory, public goods, externalities, adverse selection, and moral hazard.

# ECON 7717 Introduction to Advanced Macroeconomics (3)

*Prereq.: ECON 7610 or equivalent.* Introduction to economic growth, heuristic dynamic macroeconomic models, consumption and saving, investment, money demand, and introduction to macroeconomic policy.

## ECON 7718 Advanced Macroeconomics I (3)

Focus is on the microeconomic foundations of macroeconomics and the theory of economic growth; consumption and savings, investment, and overlapping generations models.

## ECON 7719 Advanced Macroeconomics II (3)

*Prereq.: ECON 7718.* Advanced dynamic general equilibrium models; includes recursive methods, real business cycle models, new-Keynesian economics, and asset pricing models.

## ECON 7799 Seminar in Advanced Economic Problems (3)

May be taken for a max. of 6 hrs. of credit.

## ECON 8900 Pre-dissertation Research (1-9)

Pass-fail grading. May be repeated for credit.

**ECON 9000 Dissertation Research (1-12 per sem.)** *"S"/"U"grading.* 

## **Curriculum & Instruction**

When utilizing the course offerings application EDCI courses will be listed under Curriculum & Instruction. Admission to courses at the 3000-level and above is restricted to students formally admitted to a teacher education program/concentration.

# EDCI 1000 Introduction to the Study of Education (3)

Field experience in multicultural settings in secondary schools. Credit will not be given for both this course and MUED 1000. Historical foundations, organization and administration of American public education.

### EDCI 1001 Introduction to College Study (3)

*Intended for entering freshmen.* College-level readings and techniques for organizing text and lecture information for effective study; critical thinking and reading; time management; preparation for tests.

## EDCI 2001 Education, Schooling and Society (3)

This is a General Education course. Introduction to contemporary educational issues, especially as these are situated historically, culturally, socially and politically; topics include history, theory and politics of education, especially as related to gender, race, class and technology.

## EDCI 2030 Teaching, Schooling and Society (3)

Prereq.: admission to Grades PK-3 or 1-5 teacher certification program. 2 hrs. lecture; 2 hrs. field experience in elementary schools. Experiences that join theory to practice; teaching as it operates in elementary school culture; a reflective approach to pedagogy; discussions of teaching in the historical and philosophical dimensions of discourse/practice.

# EDCI 2045 Principles and Practices in K-12 Programs (4)

Prereq.: EDCI 1000 and enrollment in a program leading to teacher certification in grades K-12. Credit will not be given for both this course and MUED 2045. 3 hrs. lecture; 2 hrs. lab/field experience in multicultural settings. Managerial aspects of instruction; application of learning principles to the classroom setting.

### EDCI 2081 PK-3 Program Overview (2)

*Pass-fail grading. 1 hr. lecture; 2 hrs. field experience.* The nature of PK-3 instruction and expectations of the PK-3 teacher education program.

# EDCI 2083 Introduction to Early Childhood Education (3)

An introduction to the field of early childhood education (ECE), encompassing the years from birth through age eight.

## EDCI 2271 Art Education for Elementary Schools (3)

*Coreq.: EDCI 3625. 2 hrs. lecture; 2 hrs. lab.* Critical analysis and evaluation of past and present concepts of art education; development of a functional art program for elementary schools in Louisiana; art materials, techniques and activities recommended for elementary school grades.

# EDCI 2272 Art Education for Elementary Schools (3)

*Prereq.: ART 2271 is prerequisite for 2272. 2 hrs. lecture; 2 hrs. lab.* Critical analysis and evaluation of past and present concepts of art education; development of a functional art program for elementary schools in Louisiana; art materials, techniques and activities recommended for elementary school grades.

## EDCI 2400 Education and Diverse Populations (3)

Prereq.: admission to 1-5 teacher education certification program. 2 hrs. lecture; 2 hrs. lab/field experience in multicultural settings. Differences among elementary students (grades 1-5) associated with their developmental levels, cultural and ethnic backgrounds and gender.

## EDCI 2500 Knowing and Learning in Mathematics and Science (3)

This is a General Education course. Introduction to multiple disciplinary perspectives on knowing and learning as guidance for pedagogical practice. Includes field experiences in area schools.

## EDCI 2700 Characteristics of Learners with Exceptionalities (3)

Requires feld experience in a school environment containing learners with exceptionalities. 2 hrs. lecture; 2 hrs. lab/field experience. An introductory course on differences of learners with various exceptionalities; characteristics, educational programs and resources for education and support.

## EDCI 3000 Children's Literature (3)

Survey of children's literature across time, genres and media; focus on wide reading in children's literature and an appreciation of the value of literature for children.

### EDCI 3001 Student Development and Diversity (3)

Prereq.: credit or concurrent enrollment in EDCI 2001 and concurrent enrollment in one of the following: ENGL 3203, FREN 3401, HIST 3001, or SPAN 3001. 2 hrs. lecture; 3 hrs. lab/field experience in multicultural settings. Differences among secondary students (grades 6-12) associated with their development levels, cultural and ethnic backgrounds, genders, learning abilities and special needs.

## EDCI 3055 Development of Young Children in Context (4)

See CFS 3055.

EDCI 3056 Young Children's Cognitive and Linguistic Development (3) *See CFS 3056.* 

## EDCI 3057 Learning Environments for Infants, Toddlers and Preschool Children (3)

*Prereq.: CFS 2065, EDCI 2083 and CFS 3055; concurrent enrollment in EDCI 3058. 2 hrs. lecture; 3 hrs field experience.* Planning and preparing environments and learning experiences to support optimal physical, social, emotional and cognitive development of young children.

## EDCI 3058 Social-Emotional Growth & Socialization: Culture, Family & Providers (3)

Prereq.: CFS 2065, EDCI 2083 and CFS 3055; concurrent enrollment in EDCI 3057. 1 hr. lecture; 6 hrs. lab. Planning and providing instruction in consideration of infant temperament, stages of emotional development, responsive care-giving and guidance and discipline in the context of culture and identity formation, dealing with cultural differences, program policies for culturally sensitive care and creating partnerships with parents.

## EDCI 3124 Curriculum Discipline: Mathematics Theory and Practice (6)

Prereq.: Professional Practice Block I; 12 sem. hrs. of mathematics, including MATH 1201 and MATH 1202; 11 sem. hrs. of natural science; and concurrent enrollment in EDCI 3125 and MATH 2203. 3 hrs. lecture; 6 hrs. lab/field experience in multicultural, multi-level settings. Structures of the discipline of mathematics applied to teaching mathematics in grades 1-6; standards-based pedagogical strategies, techniques and materials are coordinated with basic principles of learning.

## EDCI 3125 Curriculum Discipline: Science (3)

Prereq.: Professional Practice Block I, 11 sem. hrs. of natural science, 12 sem. hrs. mathematics, and concurrent enrollment in EDCI 3124 and MATH 2203. 2 hrs. lecture; 2 hrs. lab/field experience in multicultural, multi-level settings. Structures of science disciplines applied to teaching science in grades 1-6; standards-based pedagogical strategies, techniques and materials coordinated with basic principles of learning.

# EDCI 3127 Curriculum Disciplines: Social Studies (3)

Prereq.: EDCI 2400, EDCI 3000 and concurrent enrollment in EDCI 3137, EDCI 3200 and either EDCI 4460 or EDCI 4705.

2 hrs. lecture; 2 hrs. lab/field experience in multicultural, multi-level settings. Structures of the social science disciplines applied to teaching social studies in grades 1-5; standards-based pedagogical strategies, techniques and materials coordinated with basic rationales and principles of learning.

## EDCI 3136 Reading in the Content Areas (3)

Content area reading problems and solutions; the reading process, approaches, skills and materials.

## EDCI 3137 Assessing and Guiding Classroom Reading Instruction (3)

Prereq.: EDCI 2400, EDCI 3000 and concurrent enrollment in EDCI 3200, EDCI 3127 and either EDCI 4460 or EDCI 4705.

2 hrs. lecture; 2 hrs. lab/field experience in multicultural, multi-level settings. Advanced reading instruction experience with particular emphasis on assessment in diverse and multicultural settings.

### EDCI 3200 Reading, Writing and Oral Communication in the Elementary School (6)

Prereq.: EDCI 2400, EDCI 3000 and concurrent enrollment in EDCI 3127, EDCI 3137 and either EDCI 4460 or EDCI 4705. 3 hrs. lecture; 6 hrs. lab/field experience in multicultural, multi-level settings. Principles and practices of an effective program in reading, writing and the oral language arts in grades 1-5.

#### **EDCI 3223 Adolescent Literature (3)** See ENGL 3223.

### EDCI 3381 Early Childhood Curriculum (3)

Prereq.: EDCI 2083 and concurrent enrollment in EDCI 3382, EDCI 3383, and CFS 3055/EDCI 3055. 2 hrs. lecture, 3 contact hrs. lab/field experience in multi-level multicultural setting. Comprehensive integrated curriculum content for children birth through kindergarten: reading/language arts, mathematics, science, social studies and the arts.

### EDCI 3382 Early Childhood Pedagogy (3)

Prereq.: EDCI 2083 and concurrent enrollment in CFS 3055, EDCI 3381 and EDCI 3383. 2 hrs. lecture; 3 hrs. lab/field experience in multilevel, multicultural settings. Ways of instructing children from birth to kindergarten.

# EDCI 3383 Assessment and Planning for Reflective Instruction: EC (3)

Prereq.: EDCI 2083; concurrent enrollment in EDCI 3381, EDCI 3382, and CFS 3055/EDCI 3055. 2 hrs. lecture; 3 contact hrs. lab/field experience in multi-level, multi-cultural settings. The process of building the teaching and learning cycle (assessing, planning, teaching, reflecting) into integrated instruction of children birth through kindergarten.

#### EDCI 3481 Curriculum in Grades 1-3 (3)

Prereq.: EDCI 3381, EDCI 3382, EDCI 3383; membership in PK-3 teacher education program; and concurrent enrollment in CFS 3056/EDCI 3056, EDCI 3482 and EDCI 3483. Comprehensive, integrated curriculum content for children in grades 1-3: reading/language arts, mathematics, social studies, science and the arts.

### EDCI 3482 Pedagogy in Grades 1-3 (3)

Prereq.: CFS 3055; EDCI 3381, EDCI 3383; membership in PK-3 teacher education program; and concurrent enrollment in CFS 3056, EDCI 3481 and EDCI 3483. 2 hrs. lecture; 3 hrs. lab/field experience in multi-level, multicultural settings. Instructional strategies and materials for children in grades 1-3.

### EDCI 3483 Assessment and Planning for Reflective Instruction: Grades 1-3 (3)

Prereq.: CFS 3055/EDCI 3055; EDCI 3381, EDCI 3382, EDCI 3383; membership in PK-3 teacher education program; and concurrent enrollment in CFS 3056/EDCI 3056, EDCI 3481 and EDCI 3482. 1 hr. lecture; 6 hrs. lab/field experience in multi-level, multicultural settings. The process of building the teaching and learning cycle (assessing, planning, teaching, reflecting) into integrated instruction of children in grades 1-3.

#### EDCI 3550 Classroom Interactions (3)

Prereq.: BASC 2011 and EDCI 2500. 2 hrs. lecture; 2 hrs. field experience in multicultural settings. Classroom interactions in secondary mathematics and science education understood as a process of concept acquisition that encompasses learner's knowledge and emphasizes student thinking as well as illuminating the critical role of reflection and language in the construction of knowledge. Students in classroom interactions study classroom events that impact learning in mathematics and science and critical issues of student equity.

### EDCI 3625 Student Teaching in the Elementary Grades (9)

Prereq.: passage of PRAXIS II Elementary Content and PRAXIS II Principles of Learning and Teaching. 1 hr. lecture; 24 hrs. lab in diverse multicultural settings. All day, all semester student teaching experiences, including observation, participation and a minimum of 180 actual clock hours of teaching (with a substantial portion of the 180 hrs. in full-day teaching) under the professional supervision of an assigned public school mentor teacher.

# EDCI 3630 Student Teaching in the Elementary and Secondary Grades (12)

Prereq.: See "Requirements for Student Teaching" Passfail grading. 2 hrs. lecture; 30 hrs. lab.

#### EDCI 3640 Dual Certification General/Special Education Student Teaching: Grades 1-5 (9)

Prereq.: See "Requirements for Student Teaching." Passfail grading. 1 hr. lecture; 24 hrs. lab in diverse multicultural settings. All day, all semester student teaching experiences in general and special education, including observation, participation, and a minimum of 180 actual clock hours of teaching (with a substantial portion of the 180 hours in a full day teaching) under the supervision of an assigned public school mentor teacher.

### EDCI 3701 Assessment for Special Education Instructional Practice (3)

Prereq.: EDCI 2700 and admission to a Teacher Education Program. Requires practical field experience with student(s) with disabilities in a school environment. Does not satisfy the Louisiana requirements for certification as an Exceptional Diagnostician. 2 hrs. lecture; 2 hrs. lab/field experience. Assessing performance of students with disabilities; interpreting standardized test results; designing and using assessment in the classroom; instructional design based on assessment data.

# EDCI 3702 Instructional Practice for Students with Disabilities I (3)

*Prereq.: EDCI 3701. 2 hrs. lecture; 2 hrs. lab.* Instructional methods, procedures and materials for teaching students with mild to moderate learning and behavior problems; overview of various methods and introductory procedures for explicit instruction and ongoing assessment.

### EDCI 3703 Instructional Practice for Students with Disabilities II: Reading and Literacy (3)

*Prereq.: EDCI 3702. 2 hrs. lecture; 2 hrs. lab.* Instructional methods, procedures and materials for teaching reading and literacy to students with mild to moderate learning and behavior problems; includes the use of explicit instruction in academic subjects and ongoing assessment techniques in the context of relevant reading and literacy competencies; emphasis on reflective practice and making informed instructional decisions.

### EDCI 3704 Improving Language Skills in Students with Exceptionalities (3)

*Prereq.*: EDCI 2700 *and admission to a teacher certification program.* Overview of the basic principles of language intervention and disorders, including etiological categories associated with different profiles of atypical development.

# EDCI 3712 Secondary Methods and Transition Planning in Special Education (3)

*Prereq.: EDCI 3702. 2 hrs. lecture; 2 hrs. lab.* Application of foundational knowledge in secondary programs for students with mild to moderate disabilities; focus on the design, delivery and evaluation of transition services to post-school environments.

# EDCI 4003 Curriculum and Pedagogy in Secondary Disciplines (3)

Prereq.: EDCI 3136 and concurrent enrollment in one of the following: ENGL 4204, FREN 4403, HIST 4403, or SPAN 4003 or permission of instructor. May be repeated for credit in a second subject area. Credit will not be given for both this course and EDCI 4465. 2 hrs. lecture; 3 hrs. lab/field experience in multicultural settings. Applying instructional approaches in particular subject areas for middle and high school students.

# EDCI 4004 Critical Issues in Secondary School Content Area Teaching (3)

Prereq.: EDCI 4003 or permission of instructor. May be repeated for credit in a second subject area. Credit will not be given for both this course and EDCI 4466. 2 hrs. lecture; 3 hrs. lab/field experience in multicultural settings. Critical issues in the nature of knowledge and inquiry in specific school subjects.

# EDCI 4005 Student Teaching in Grades 6-12 Humanities (9)

Prereq.: EDCI 4003, ENGL 4204 and concurrent enrollment in EDCI 4004 and in one of the following: FREN 4404, HIST 4404, SPAN 4004. 1 hr. lecture; 24 hrs. lab/field experience in diverse multicultural settings. All day, all semester student teaching experiences, including observation, participation, and a minimum of 180 actual clock hours of teaching (with a substantial portion of the 180 hrs. in a full day teaching) under the supervision of an assigned public school mentor teacher.

#### EDCI 4006 Student Teaching in Grades 6-12 Mathematics and Sciences (9)

Prereq.: EDCI 4500, passage of applicable Praxis II content exam and Praxis II Principles of Learning & Teaching. 1 hr. lecture; 24 hrs. lab/field experience in diverse multicultural settings. All day, all semester student teaching experiences, including observation, participation, and a minimum of 180 actual clock hours of teaching (with a substantial portion of the 180 hours in a full day teaching) under the supervision of an assigned public school mentor teacher.

# EDCI 4060 Organization and Administration of Early Childhood Programs (3)

*Prereq.: EDCI 2083 or consent of department.* Historical, cultural, and philosophical foundations; finances, budgeting, staff duties, policies and legal aspects, equipment and physical plant, parent education and communication, public relations.

### EDCI 4269 Art Education Workshop (3)

Art as an integral part of the school curriculum; art activities and classroom procedures, materials and techniques.

#### EDCI 4272 Current Practices in Art Education (3)

Contemporary trends and practices in art education; critical review of texts, journals and other information sources.

# EDCI 4273 Art Education in the Elementary and Secondary Schools (3)

*For students concentrating in art education.* Development of a functional art program for elementary and secondary schools; philosophy of art education, curriculum construction, teaching methods, planning and measurement of the results of instruction.

# EDCI 4381 Student Teaching: Practice and Reflection in PK/K (12)

*Prereq.: EDCI 3481, EDCI 3482 and EDCI 3483; concurrent enrollment in EDCI 4382. 4 hrs. lecture; 24 hrs. lab/field experience in multi-level, multicultural settings.* Designed to partially fulfill student teaching requirements and to prepare students to be effective classroom teachers in PK/K settings.

# EDCI 4382 Critical Issues in Early Childhood Education (3)

*Prereq.: EDCI 2083 or consent of department.* Historical and contemporary perspectives on developmental, sociocultural and pedagogical issues in early childhood education.

# EDCI 4450 Principles and Practices in Secondary Education (3)

*Prereq.: cohort membership or consent of instructor.* Analysis of criticisms of secondary education and of current proposals for reform; conflicting conceptions of teaching, learning, cognition and related approaches to curriculum, instruction and evaluation; current theoretical and research approaches; implications for educational policy and practice.

# EDCI 4460 Planning, Managing and Evaluating School Instruction (3)

*Prereq.:* EDCI 2400, EDCI 3000 and concurrent enrollment in EDCI 3127, EDCI 3137 and EDCI 3200. 2 hrs. lecture; 2 hrs. lab. Exploration and observation of skills and techniques for organizing and assessing learning in schools.

# EDCI 4465 Seminar: Reflective Teaching in Secondary Subjects (3)

Prereq.: cohort membership or consent of instructor. May be taken for a max. of 6 sem. hrs. when topics vary. Credit will not be given for both this course and EDCI 4003. Critical issues and pedagogical practices related to the reflective teacher of English, social studies, science or mathematics.

# EDCI 4466 Seminar: Critical Issues in Secondary School Teaching (3)

May be taken for a max. of 6 sem. hrs. when topics vary. Credit will not be given for both this course and EDCI 4004. Critical issues in the nature of knowledge and inquiry in school subjects: English, mathematics, science and social studies.

# EDCI 4481 Student Teaching: Practice and Reflection in Grades 1-3 (12)

*Prereq.: EDCI 4381 and EDCI 4382; concurrent enrollment in EDCI 4482. 4 hrs. lecture; 24 hrs. lab/field experience in multi-level, multicultural settings.* Designed to partially fulfill student teaching requirements and to prepare student to be effective classroom teachers in grades 1-3.

# EDCI 4482 Capstone Seminar in Early Childhood Education (3)

*Prereq.: EDCI 4381 and EDCI 4382; concurrent enrollment in EDCI 4481.* Critically analyzing epistemology and contexts of learning; conducting action research; communicating teaching expertise.

# EDCI 4500 Instructional Models for Mathematics and Science (3)

*Prereq.: EDCI 3550.* Applying instructional approaches in mathematics and science for middle and high school students. Includes supervised field experiences in multicultural settings and/or informal learning environments.

### EDCI 4630 Student Teaching in K-12 Grades (9)

Prereq.: See "Requirements for Student Teaching." Passfail grading. 1 hr. lecture; 35 hrs. lab. Student teaching practicum in diverse, multicultural K-12 settings.

### EDCI 4635 Internship in Curriculum and Instruction (3-12)

Prereq.: permission of the College of Human Sciences & Education Office of Field Experiences. Pass-fail grading. Specific teaching or practicum experience in a public school setting; periodic evening seminars.

# EDCI 4701 Trends and Issues in Educating Learners with Exceptionalities (3)

Offered in Su *Requires field experience with student(s) with exceptionalities in a school environment.* Exceptionality and special education; characteristics, educational needs and instructional practice; current trends and issues in service provision.

#### EDCI 4703 School and Classroom Management Applied to Students with Exceptionalities (3)

*Prereq.: EDCI 2700 or equivalent. 2 hrs. lecture; 2 hrs. lab.* Skills for behavior management of children with exceptionalities in school settings, emphasizing evidence-based school-wide and classroom application.

#### EDCI 4705 Learning and Behavior Principles Applied to Students with Exceptionalities (3) *Prereq.: EDCI 2700.*

2 hrs. lecture; 2 hrs. lab/field experience. Development of intervention programs based on the principles of applied behavior analysis; emphasis on proactive strategies that promote learning and prosocial behavior.

#### EDCI 4710 Consultation, Collaboration and Coteaching (3)

*Prereq.: EDCI 2700 or EDCI 4701.* Professional roles; models and practices in building cooperative and inclusive environments for education; emphasis on consulting teacher, collaborative consultation, co-teaching and building effective communications among educators, parents and other professionals in providing education and other services to children with exceptionalities.

# EDCI 4800 Teaching in the Multicultural Classroom (3)

Strategies and resources for teaching students of cultural diversity in the classroom; development of units and activities of cultural variety.

# EDCI 4900 Special Topics in Curriculum and Instruction (1-3)

*Prereq.: consent of instructor. May be taken for a max. of 9 sem. hrs. of credit.* Methods, trends and issues in curriculum and instruction.

### EDCI 5880 Special Topics in Education (1-3)

*Prereq.: consent of instructor. May be taken for a max. of 9 sem. hrs. of credit.* New methods, trends and techniques.

### EDCI 6701 Foundations of Applied Behavioral Analysis in Education (3)

An introduction to behavior analytic principles, definitions, characteristics, processes, and concepts. An introduction to behavioral consultation.

#### EDCI 6702 Measurement of Behavior: Analysis and Evaluation of Behavior Change in Education (3)

*Prereq.:* EDCI 6701. A basic introduction to behavioral assessment and the measurement, display, analysis, and evaluation of behavioral data.

### EDCI 6703 Promoting Positive Behavior Change in Education (3)

*Prereq.*: EDCI 6702. Behavior change procedures and systems support in applied behavior analysis.

# EDCI 6704 Applied Behavior Analysis Practicum in Education (3)

*Prereq.*: EDCI 6703. Supervised practicum in the application of behavior analytic practices in an educational setting.

# EDCI 7008 Trends and Issues in Emotional and Behavioral Disturbance (3)

An in-depth examination of issues and trends in emotional and behavioral disturbance including diagnosis, etiology, current theory and delivery systems.

# EDCI 7009 Advanced Evaluation and Assessment for Students at-Risk (3)

Prereq.: EDCI 3701 or equivalent. Requires practical field experience with students with disabilities in a school environment. Identification and diagnosis of learning and behavior problems; IDEA and Section 504 legal requirements; administration and interpretation of individually administered standardized tests, design of classroom-based assessments and methods of comparative analysis; instructional and service recommendations based on multifaceted assessment.

# EDCI 7010 Advanced Practicum in Evaluation and Assessment (3)

*Prereq.: EDCI 7009.* Supervised experience in educational evaluation and assessment; practical and in-depth approach; procedures for prereferral screening, for conducting individual assessments, including evaluating for eligibility, interpreting data for instructional decision-making and for designing ongoing data collection systems.

# EDCI 7017 Explicit Instructional Models for Students with Disabilities (3)

*Prereq.: ELRC 4249. 2 hrs. lecture; 2 hrs. lab.* Evaluating the research base and theories supporting the use of instructional and assessment models, including Direct Instruction Model and curriculum-based assessment.

# EDCI 7018 Strategic Instructional Models for Students with Disabilities (3)

*Prereq.: ELRC 4249. 2 hrs. lecture; 2 hrs. lab.* Evaluating the research base and theories supporting the use of strategic instructional and assessment models; emphasis on the use of strategic instruction with students with mild to moderate disabilities.

# EDCI 7021 Legal and Ethical Issues in Special Education (3)

Offered in Su Legal and ethical issues in special education; specific emphasis on IDEA, Section 504, case law, regulatory issues, professional responsibilities and CEC standards for professional practice.

# EDCI 7051 The Contemporary Family (3) *See CFS 7051.*

EDCI 7052 Topics and Issues in Family and Consumer Sciences (3) See CFS 7052.

### EDCI 7053 Infant Behavior and Development (3)

Infant personality, development and socialization; major transactions in the infant's life; family and home; child-care facilities and caregivers; support systems within larger societies.

#### EDCI 7054 Child Guidance and Behavior (3)

*Prereq.: EDCI 7056 or consent of instructor.* Normal, agerelated behavior patterns; child guidance practices and their consequences; techniques and procedures for successful parenting and for improved classroom management; theoretical bases.

### **EDCI 7055 Human Development (3)** See CFS 7055.

**EDCI 7056 Theories of Child Development (3)** *See CFS 7056.* 

**EDCI 7057** Theories in Family Science (3) *See CFS 7057.* 

### EDCI 7059 Parent Involvement in Early Childhood Education (3)

2 hrs. lecture; 2 hrs. lab. Interpersonal relationships and involvement of parents in early childhood education programs; research and existing models of parent involvement.

# EDCI 7105 Teaching Reading in the Elementary School (3)

Current instructional procedures and research in reading instruction in the elementary school; approaches and ideas for teaching reading to culturally different students.

# EDCI 7106 Teaching Reading to Students with Diverse Cultural Backgrounds (3)

*Prereq.: EDCI 7105 or EDCI 7135 or consent of instructor.* Characteristics of learners from different cultural settings; analysis of methods and materials that support reading instruction for these students.

### EDCI 7107 Topics in Reading Education (3)

*Prereq.: EDCI 7105 or EDCI 7135 or equivalent. May be taken for a max. of 6 sem. hrs. of credit when topics vary.* Issues and practices in elementary through adult reading education.

# EDCI 7109 Studies in the Teaching of Elementary School Mathematics (3)

Techniques and materials for teaching elementary school mathematics; relationship between learning theories and acquisition of mathematical skills and concepts.

### EDCI 7111 Studies in the Teaching of Elementary School Language Arts (3)

Practices and curricula in the teaching of elementary school language arts.

# EDCI 7112 Early Literacy Development and Instruction (3)

Current research on early literacy development and learning, with an emphasis on pre-conventional stages of literacy.

### EDCI 7129 Writing Seminar: From Idea to Manuscript (3)

Current research on scholarly writing productivity with emphasis on expertise, competence, organization, skill sets, supports, and tools for producing manuscripts for publication, prospectuses, presentation proposals, or grants; demonstration and student production.

# EDCI 7130 Techniques and Resources for Reading Instruction (3)

*Prereq.: EDCI 7105 or EDCI 7135 or equivalent.* Methods and materials in all areas of reading; demonstration and student production; application of materials and methods for effective reading instruction.

# EDCI 7131 Developing Learning Skills through Content Reading (3)

Relationships between learning skills and content areas; the reading process; materials and research related to reading.

# EDCI 7135 Techniques for Teaching Reading in the Middle and Secondary School (3)

Reading skills appropriate for the upper levels; approaches for teaching reading; techniques for improving the school reading program.

### EDCI 7140 Studies in the Teaching of Social Studies in Secondary Schools (3)

Theory and research with practical application to areas of study needed to teach social studies in the secondary school.

# EDCI 7141 Studies in the Teaching of Mathematics in Secondary Schools (3)

Practices and issues in techniques and materials for teaching mathematics in secondary schools; relationship between learning theories and acquisition of mathematical skills and concepts.

### EDCI 7142 Studies in the Teaching of Composition in Secondary Schools (3)

Theory and research with practical application to the teaching of composition in secondary schools.

### EDCI 7143 The Teaching of Literature in Secondary Schools (3)

### EDCI 7147 Studies in the Teaching of Secondary School Science (3)

*Prereq.: science teaching experience.* Instructional materials, evaluation practices and science teaching skills for grades 6-12.

# EDCI 7149 Studies in the Teaching of Foreign Languages (3)

*Prereq.: completion of an undergraduate foreign language methods course and/or teaching experience; or consent of instructor.* Principles and current research related to the teaching of foreign languages.

# EDCI 7205 Critical Analysis of Current Research in Reading (3)

*Prereq.: 12 hours of graduate reading courses or equivalent.* Evaluation of current and needed research; application of research findings in the instructional program.

### EDCI 7247 Teaching in the Science Laboratory (3)

2 hrs. lecture; 2 hrs. lab. Interpreting research in laboratory science instruction; use of results to generate creative laboratory activities.

# EDCI 7307 Topics in Curriculum and Instruction (3)

May be taken for a max. of 6 hrs. of credit when topics vary.

### EDCI 7308 Topics in Science Education (3)

May be taken for a max. of 6 hrs. of credit when topics vary.

### EDCI 7309 Topics in Mathematics Education (3)

Prereq.: EDCI 7109 or EDCI 7141 or consent of instructor. May be taken for a max. of 6 hrs. of credit when topics vary.

### EDCI 7311 Topics in Language Arts Education (3)

Prereq.: EDCI 7111 or EDCI 7142 or equivalent. May be taken for a max. of 6 hrs. of credit when topics vary. Selected topic in a specific subject matter, level of instruction or a methodological problem in teaching English language arts.

### EDCI 7312 Diagnostic and Prescriptive Teaching in Mathematics (3)

*Prereq.: EDCI 7109 or EDCI 7141.* Techniques for assessing students' skill levels and understanding in K-12 mathematics and for tailoring instruction to individual needs.

### EDCI 7313 Teaching Literature in the Elementary School (3)

Role of literature in elementary education; relevant teaching issues and strategies; integration of literature into the elementary curriculum.

### EDCI 7314 Teaching Written Composition from PK through Grade 6 (3)

Practices and curricula in the teaching of written composition in PK through Grade 6; its relationship to English language arts and literacy instruction.

# EDCI 7315 Teaching Multicultural Children's Literature (3)

Multicultural literature for children from elementary through junior high school; historical and contemporary perspectives; implications for the classroom.

### EDCI 7455 Foundations of Secondary or K-12 Educational Theory, Policy and Practice (3)

*Prereq.: cohort membership and completion of EDCI 7460, EDCI 7461 or consent of instructor.* Social contexts, history and philosophy of current and perennial issues in education; conflicting purposes and functions of public schooling; economic and political analysis of educational policy; implications of conflicting approaches to teaching and learning; current theory and research.

# EDCI 7460 Fall Practicum in Secondary or K-12 Schools (6)

Prereq.: cohort membership or consent of instructor. Passfail grading. 1 hr. lecture; 10 hrs. lab. First of two practica in local schools.

# EDCI 7461 Spring Practicum in Secondary or K-12 Schools (6)

Prereq.: cohort membership or consent of instructor. Passfail grading. 1 hr. lecture; 10 hrs. lab. Second of two practica in local schools.

# EDCI 7465 Seminar: The Teacher-Researcher in Secondary School Subjects (3)

*Prereq.: cohort membership or consent of instructor. May be taken for a max. of 6 sem. hrs. when topics vary.* Study of teacher-researcher literature; its application to secondary teaching and curriculum in the subject area (English, mathematics, science or social studies).

# EDCI 7475 Research Project in Secondary or K-12 Teacher Education (3)

Prereq.: cohort membership and completion of EDCI 7460 and EDCI 7461 or consent of instructor. May be taken for a max. of 6 sem. hrs. of credit when topics vary. 2 hrs. lecture; 2 hrs. lab. Development, completion and presentation of a research problem in curriculum and instruction that grows out of fifth-year clinical experiences and precedes course work.

### EDCI 7480 Teaching Practicum I (6)

Prereq.: cohort membership or consent of instructor and concurrent enrollment in EDCI 7482, EDCI 7484. Pass-fail grading. 20 hrs. lab. Along with the Seminar in Teaching Research and the Master's Project, this course is designed to partially fulfill student teaching requirements and to prepare students to be effective classroom teachers.

### EDCI 7481 Teaching Practicum II (6)

Prereq.: cohort membership or consent of instructor and concurrent enrollment in EDCI 7483, EDCI 7485. Pass-fail grading. 20 hrs. lab. Along with the Seminar in Teaching Research and the Master's Project, this course is designed to partially fulfill student teaching requirements and to prepare students to be effective classroom teachers.

#### EDCI 7482 Seminar in Teaching Research I (3)

*Prereq.: cohort membership or consent of instructor and concurrent enrollment in EDCI 7480, EDCI 7484. 2 hrs. lecture; 2 hrs. lab.* An integral part of the fifth-year teaching research project; along with the Teaching Practicum and the Master's Project, this course partially fulfills student teaching requirements.

### EDCI 7483 Seminar in Teaching Research II (3)

Prereq.: cohort membership or consent of instructor and concurrent enrollment in EDCI 7481, EDCI 7485. 2 hrs. lecture; 2 hrs. lab. An integral part of the fifth-year teaching research project; along with the Teaching Practicum and the Master's Project, this course partially fulfills student teaching requirements.

### EDCI 7484 Master's Project I (3)

*Prereq.: cohort membership or consent of instructor and concurrent enrollment in EDCI 7480, EDCI 7482.* Development and completion of a research problem in curriculum and instruction that grows out of the first semester's clinical experience.

### EDCI 7485 Master's Project II (3)

*Prereq.: cohort membership or consent of instructor and concurrent enrollment in EDCI 7481, EDCI 7483.* Development and completion of a research problem in curriculum and instruction that grows out of the second and culminating semester's clinical experience.

### EDCI 7610 Advanced Seminar and Practicum in Curriculum and Instruction (3-6)

The student, major professor and a committee will structure experiences around the student's needs and interests.

# EDCI 7682 Assessment Techniques and Practicum in Reading (3)

*Prereq.: EDCI 7105, EDCI 7135, or equivalent. 2 hrs. lecture; 2 hrs. lab.* Mastery level skills for evaluating reading strengths and weaknesses of elementary and secondary school students; theoretical models and a practicum for applying techniques.

### EDCI 7683 Guiding Classroom Instruction and Practicum in Reading (3)

*Prereq.: EDCI 7105 and EDCI 7682 or equivalent. 2 hrs. lecture; 2 hrs. lab.* Procedures for guiding instruction in reading; theory and practice.

#### EDCI 7684 Advanced Internship in Reading (6)

Prereq.: permission of department, advanced standing in the specialist or doctoral program or equivalent. Field experiences in various job-related settings. 1 hr. lecture; 10 hrs. lab. Teaching experiences at the local school and university levels; administrative experience at the parish level and consultant experience at the state level.

#### EDCI 7685 Applied Research in Reading (3)

*Prereq.: enrollment in advanced graduate program and ELRC 4249 or equivalent.* Individual research projects.

# EDCI 7701 Advanced Seminar in Special Education I (3)

*Prereq.: ELRC* 4249. Current trends and issues in special education, including legal/ethical considerations, history, theory and seminal research.

# EDCI 7705 Applied Learning Theory for Exceptional Learners (3)

A study of the development of human learning theories, experimental research, and the application of these theories and research to evaluating and modifying the behavior of exceptional learners in modern classrooms.

# EDCI 7713 Individual Study in Special Education (3)

### EDCI 7760 Nature and Needs of the Gifted and Talented (3)

Historical perspective, social, emotional and educational characteristics; administrative considerations; sociological and psychological studies; special populations.

# EDCI 7761 Models and Strategies for Teaching the Gifted (3)

*Prereq.: EDCI 7760 or equivalent.* Examination of models, teaching strategies and resources for planning appropriate learning experiences for gifted and talented students in diverse settings.

### EDCI 7762 Creative Behavior (3)

Nature and analysis of creative behavior; appraisal and implementation of specific processes designed to encourage creative productivity.

# EDCI 7763 Developing Curriculum for the Gifted (3)

Offered in Su *Prereq.: EDCI 7761*. An examination of curricular theories and models for use in gifted education programs, including the development and evaluation of educational plans for individuals and groups.

# EDCI 7764 Social and Emotional Development of the Gifted (3)

*Prereq.: EDCI 7760.* In depth study of the social and emotional development of the gifted; specific emphasis on underachievement, counseling, youth with special needs and working with other mental health professionals in the school setting.

# EDCI 7768 Practicum in Education for the Gifted (3-6)

*Prereq.: EDCI 7760, EDCI 7761 and EDCI 7762.* Planning, implementing and evaluating teaching strategies, materials and counseling techniques in a school program.

# EDCI 7811 Seminar in Current Trends in Education Literature (3)

May be taken for a max. of 6 hrs. of credit when topics vary. Seminar for beginning doctoral students in curriculum and instruction.

# EDCI 7821 Problems in Curriculum and Instruction (2-4)

For advanced graduate students who are qualified to undertake individual problems.

# EDCI 7822 Problems in Curriculum and Instruction (2-4)

For advanced graduate students who are qualified to undertake individual problems.

### EDCI 7824 Elementary School Curriculum (3)

Content, organization and evaluation of the elementary school curriculum.

### EDCI 7825 Secondary School Curriculum (3)

Content, organization, and evaluation of the secondary school curriculum.

### EDCI 7843 Early Childhood Education (3)

See HUEC 7843. Historical, theoretical, philosophical and programmatic issues that affect contemporary early childhood education.

### EDCI 7901 Curriculum Theory (3)

Means for strengthening the curriculum; links between past and current concepts of curriculum.

#### EDCI 7902 Analysis of Research on Teaching (3)

*Prereq.: ELRC 7006 or equivalent.* Theory of design and application of research related to systematized instruction.

### EDCI 7903 Curriculum Planning (3)

*Prereq.: EDCI 7901 or equivalent.* Principles of curriculum needs assessment, design, implementation, and evaluation.

### EDCI 7904 Education and Cognition (3)

Understanding human cognition and cognitive change; implications for educational theory, practice and research.

#### EDCI 7910 Traditions of Inquiry in Education (3)

*Prereq.: ELRC 7299 or permission of instructor.* Theoretical and methodological issues related to research traditions in education; development of major traditions.

# EDCI 7920 Analysis of Research in Curriculum and Instruction (3)

Prereq.: ELRC 7241 or equivalent. A max. of 6 sem. hrs. may be earned in this series; only 3 sem. hrs. may be earned in any one area. Factors influencing research and critical analysis of selected research in one of the following areas: curriculum, mathematics, science, language arts, social or early childhood education.

### EDCI 7921 Analysis of Research in Curriculum and Instruction (3)

Prereq.: ELRC 7241 or equivalent. A max. of 6 sem. hrs. may be earned in this series; only 3 sem. hrs. may be earned in any one area. Factors influencing research and critical analysis of selected research in one of the following areas: curriculum, mathematics, science, language arts, social or early childhood education.

# EDCI 7930 Seminar: Curriculum and Instruction (1-6)

A max. of 6 sem. hrs. may be earned in this series when topics vary. Trends and issues in one of the following areas: curriculum, mathematics, science, language arts, social or early childhood education.

# EDCI 7931 Seminar: Curriculum and Instruction (1-6)

A max. of 6 sem. hrs. may be earned in this series when topics vary. Trends and issues in one of the following areas: curriculum, mathematics, science, language arts, social or early childhood education.

#### EDCI 8000 Thesis Research (1-12 per sem.)

"S"/"U"grading.

#### EDCI 9000 Dissertation Research (1-12 per sem.)

"S"/"U"grading.

### Education

Please note that Curriculum & Instruction courses are listed under the EDCI rubric.

### EDUC 2000 Special Topics in Education (1-3)

Prereq.: consent of instructor. May be taken for a max. of 9 sem. hrs. of credit. Methods, trends and issues in education.

### **Electrical Engineering**

### EE 1810 Introduction to Engineering: Electrical and Computer Engineering (2)

*Pass-fail grading. 1 hr. lecture, 2 hrs. lab.* Survey of engineering concepts with specific focus on the electrical and computer engineering discipline.

### EE 2120 Circuits I (3)

Prereq.: credit or registration in EE 1810, MATH 2070, and PHYS 2113 or consent of division. Time-domain analysis of electrical networks.

#### EE 2130 Circuits II (3)

*Prereq.: EE 2120, PHYS 2113, and MATH 2070.* Frequency domain analysis of electrical networks.

#### EE 2230 Electronics I (3)

*Prereq.: EE 2120.* Terminal behavior of semiconductor devices and basic circuits.

#### EE 2231 Electronics Laboratory I (2)

Prereq.: credit or registration in EE 2230. 1 hr. lecture; 2 hrs. lab.

#### EE 2731 Digital Logic Laboratory (2)

*Prereq.*: EE 2740. *1 hr. lecture; 2 hrs. lab.* Familiarization with conventional logic gates and flip-flops; design and testing of various combinational and sequential circuits.

#### EE 2740 Digital Logic (3)

*Prereq.: MATH 1550.* Boolean algebra; logic gates; minimization methods; analysis and synthesis of combinational and sequential logic circuits; design examples; practical impact of design choices.

### EE 2741 Digital Logic I (3)

*Prereq.: MATH 1550. 2 hrs. lecture; 2 hrs. lab.* Boolean algebra; logic gates; analysis and synthesis of combinational logic circuits; introduction to sequential circuits.

#### EE 2742 Digital Logic II (2)

*Prereq.: EE 2741. 1 hr. lecture; 2 hrs. lab.* Analysis and synthesis of sequential logic circuits; standard logic elements such as multiplexers, counters and registers.

### EE 2810 Tools in Electrical and Computer Engineering (2)

*Prereq.: CSC 1253 and credit or registration in EE 2130 and EE 2231. 1 hr. lecture; 2 hrs. lab.* Contemporary tools in the area of electrical and computer engineering.

### EE 2950 Comprehensive Electrical Engineering (3)

*Prereq.: MATH 1552 or equivalent. For nonelectrical engineering majors.* Elementary circuits, devices and systems in electrical engineering.

#### EE 3000 Special Topics in Electrical and Computer Engineering (3)

May be taken for a max. of 6 hrs. of credit when topics vary. Prerequisites will vary depending on the topic.

#### EE 3001 Special Topics in Electrical and Computer Engineering with Lab (3)

May be taken for a max. of 6 hrs. of credit when topics vary. Prerequisites will vary depending on the topic. 2 hrs. lecture; 2 hrs. lab.

#### EE 3060 Special Projects (2)

*Prereq.: consent of department. Pass-fail grading.* Individual work with instructor on special project selected by instructor and student.

#### EE 3061 Special Projects (2)

*Prereq.: consent of department. Pass-fail grading.* Individual work with instructor on special project selected by instructor and student.

#### EE 3070 Engineering Practice (3)

Prereq.: permission of department and either completion of one co-op session or six months of full time employment in an appropriate area. Pass-fail grading. Written final report required. Work experience in solving electrical and computer engineering problems in an engineering environment.

### EE 3150 Probability for Electrical and Computer Engineering (3)

*Credit will not be given for this course and MATH 3355. Prereq.: MATH 2057.* Basic concepts of probability theory and statistics with applications to electrical and computer engineering; axioms of probability, continuous, discrete, and conditional probability density and distribution functions, expectations, statistical inference, and random processes.

### EE 3160 Introduction to Digital Signal Processing (3)

*Prereq.: EE 2130 and EE 2810 or equivalent.* Digital processing of continuous-time signals; Discretetime Fourier transform; z-transform, signals and systems in the transform domains; Digital filter design techniques; Discrete Fourier transform and FFT algorithm.

#### EE 3220 Electronics II (3)

*Prereq.: EE 2130, EE 2230 and EE 2231.* Analysis and design of electronic circuits; emphasis on concepts and device models.

#### EE 3221 Electronics Laboratory II (2)

*Prereq.: EE 2231 and concurrent registration in EE 3220. I hr. lecture; 2 hrs. lab.* 

#### EE 3232 Solid State Devices I (3)

*Prereq.: EE 2230 and EE 2130.* Physics and analysis of basic semiconductor devices; principles of integrated circuit fabrication.

#### EE 3320 Electrical and Magnetic Fields (3)

*Prereq.: MATH 2057 and EE 2130.* Maxwell's equations; wave propagation and reflection in isotropic media; static fields.

### EE 3410 Electric Power (3)

*Prereq.: EE 2130.* Basic principles of electromechanical energy conversion and power system analysis.

#### EE 3530 Introduction to Control Engineering (3)

Prereq.: EE 2130 and EE 2810.

Modeling, simulation, realization, analysis and feedback control design of dynamic systems.

### EE 3610 Signals and Systems (3)

*Prereq.: EE 2130 and EE 2810.* Methods of analysis of continuous time signals and systems.

### EE 3710 Communications in Computing (3)

*Prereq.: EE 2741. Coreq.: EE 3150 or equivalent.* Theoretical and practical factors in designing computer communications networks; communication principles and codes; network topology and architecture; protocol layers; security; current and advanced applications.

#### EE 3752 Microprocessor Systems (3)

*Prereq.: CSC 1253 and EE 2742. 2 hrs. lecture; 2 hrs. lab.* Theory and design of microprocessors; seminconductor technologies, architectures, assembly language, software development, input/output design, applications, and interfacing.

#### EE 3755 Computer Organization (3)

*Prereq.: EE 2742 or equivalent. Credit will not be given for both this course and CSC 3501.* Structure and organization of computer systems; instruction sets; arithmetic; data path and control design.

### EE 3950 Electronics (2)

*Prereq.: EE 2950. For nonelectrical engineering majors.* Basic electronics and instrumentation.

### EE 4000 Special Topics in Electrical Engineering (3)

May be taken for a max. of 6 hrs. of credit when topics vary. Students in curricula other than electrical engineering should consult the instructor. ABET category: 3 hrs. engineering science. Selected topics of current interest.

# EE 4002 Special Topics in Electrical Engineering (3)

May be taken for a max. of 9 hrs. of credit when topics vary. Students in curricula other than electrical engineering should consult the instructor. ABET category: 2 hrs. design; 1 hr. engineering science. Selected topics of current interest.

#### EE 4003 Special Topics in Electrical and Computer Engineering with Lab (3)

May be taken for a max. of 6 hrs. of credit when topics vary. Prerequisites will vary depending on the topic. 2 hrs. lecture; 2 hrs. lab.

#### EE 4060 Research for Undergraduates I (3)

*Prereq.: permission of the department. Pass-fail grading.* Individual work with instructor on research topic selected by instructor and an undergraduate student who is also enrolled in the ECE Accelerated Masters's Program.

#### EE 4061 Research for Undergraduates II (3)

*Prereq.: EE 4060. Pass-fail grading.* Individual work with instructor on advanced research topic selected by instructor and undergraduate student who is also enrolled in the ECE Accelerated Master's Program.

### EE 4160 Algorithms and Implementations for Digital Signal Processing (3)

*Prereq.: EE 3160 or equivalent.* Design algorithms for FIR and IIR filters, adaptive estimation and its applications and multirate digital signal processing; Digital signal processors and implementations for signal processors for spectrum analysis and estimation, FIR and IIR digital filters and adaptive echo cancellation.

### EE 4162 Digital Signal Processing Algorithms and Implementations (3)

*Prereq.*: EE 3160 or equivalent. 2 hrs. lecture, 2 hrs. lab. Discrete-Time Signals and Systems. Time-Domain Characterization and Transform-Domain Representation. IIR and FIR Digital Filter Design. DSP Algorithm Implementations.

### EE 4232 Solid State Devices II (3)

*Prereq.: EE 3232.* Physics and analysis of advanced semiconductor devices, including photonic and high-frequency devices.

#### EE 4240 Linear Circuit Design (3)

*Prereq.: EE 3220 and EE 3221. 2 hrs. lecture; 2 hrs. lab. ABET category: 2 hrs. design; 1 hr. engineering science.* Fabrication and use of discrete and monolithic integrated circuits; use of building blocks for design of analog systems.

### EE 4242 VLSI Design (3)

*Prereq.: EE 2742, EE 2230, EE 2231. 2 hrs. lecture; 2 hrs. lab.* Design and implementation of logic gates for application-specific integrated circuits; system design methodology using CMOS technology.

### EE 4247 Chemical and Biological Sensors (3)

*Prereq.: CHEM 1201 and EE 3232 or their equivalents.* Fundamentals of chemical and biological sensors; molecular recognition and transduction principles; fundamentals of electrochemical sensors, optical and masssensitive sensing techniques, and performance factors of chemical and biological sensors.

#### EE 4250 Digital Integrated Circuits (3)

*Prereq.: EE 3220, EE 3221 and EE 3232. 2 hrs. lecture; 2 hrs. lab. ABET category: 2 hrs. design; 1 hr. engineering science.* Analysis and design of digital integrated circuit logic gates in bipolar and MOS technology; semiconductor memories and their operations.

### EE 4262 Electronic Instrumentation and Metrology (3)

*Prereq.: EE 3220 and EE 3221 or equivalent. 2 hrs. lecture; 2 hrs. lab. ABET category: 2 hrs. design; 1 hr. engineering science.* Application of electronic principles to the design and development of practical systems including instrumentation, data analysis and metrology; design and construction of term projects.

### **EE 4270 Optical Electronics (3)**

*Prereq.: EE 3320 or equivalent. 2 hrs. lecture; 2 hrs. lab.* Interaction of optical radiation with various media; theory of laser oscillations and specific laser systems; modulation and detection of optical radiation; fiber optic applications.

# EE 4340 Fiber Optic and Microwave Propagation (3)

*Prereq.: EE 3610 and EE 3320 or equivalent.* Wave propagation at microwave and optical frequencies in metallic waveguides and optical fibers.

### EE 4350 Applied Electromagnetics: RF Systems (3)

*Prereq.*: EE 3320 and EE 3610. 2 hrs. lecture; 2 hrs. lab. Analysis and design of RF systems, transmission lines, impedance matching networks, RF filter design, antennas, high speed circuits, single and multi-port networks, RF modeling.

#### EE 4410 Power System Protection (3)

*Prereq.: EE 3410 or equivalent.* Broad based introduction to utility and industrial power system protection. Topics of study include transmission, distribution, generation and industrial distribution systems.

#### EE 4412 Power System Analysis and Modeling (3)

*Prereq.: EE 3410. 2 hrs. lecture; 2 hrs. lab.* Basic principles of power system modeling and analysis in steady state operation including, components modeling, network modeling, symmetrical faults, and introduction to asymmetrical faults.

### EE 4422 Electric Machine Design (3)

Prereq.: EE 3410 or equivalent; 2 hrs. lecture, 2 hrs. lab. ABET category: 2 hrs. design, 1 hr. engineering science. Design and performance analysis of electric machines in steady-state and dynamic conditions using a simulation on PC and lab experiments.

### EE 4445 Power System Operation and Control (3)

*Prereq.: EE 3410 or equivalent.* Introduction to operation and control of major utility interconnected power system. Control of generation and operation of interconnected utility grid, transmission systems, utility distribution systems and large industrial power systems.

#### EE 4450 Distribution System Design (3)

*Prereq.: EE 3410 or equivalent. ABET category: 2 hrs. design; 1 hr. engineering science.* Power distribution systems; emphasis on design and applications.

#### EE 4460 Power Electronics (3)

*Prereq.: EE* 3220 and *EE* 3410. 2 hrs. lecture; 2 hrs. lab. *ABET category:* 2 hrs. design; 1 hr. engineering science. Design of power semiconductor converters including controlled rectifiers, inverters, AC voltage controllers and DC-DC converters.

#### EE 4490 Adjustable Speed Drives (3)

*Prereq.: EE* 3410, *EE* 3530. 2 hrs. lecture, 2 hrs. lab. *ABET category:* 2 hrs. design, 1 hr. engineering science. Design and test of DC and AC motor variable speed drives combined with an analysis of their static and dynamic properties.

### EE 4580 Topics in Control System Design (3)

*Prereq.: EE 3530. ABET category: 2 hrs. design; 1 hr. engineering science.* Compensation of single loop and multiloop systems; state estimation; stability; application to industrial controllers; design using computer simulation packages.

### EE 4585 Discrete Control System Design (3)

*Prereq.: EE 3530. ABET category: 2 hrs. design; 1 hr. engineering science.* Sampling and reconstruction of signals; analysis and design of sampled data systems; discrete time systems and controllers.

# EE 4625 Digital Communication and Networking (3)

*Prereq.: EE 3610 and EE 3150 or equivalent.* Digital coding of analog information, baseband transmission, decision theory, modulation, design considerations, applications.

#### EE 4660 Random Processes I (3)

*Prereq.: EE 3150 or equivalent.* Probability spaces; random variables and processes; second order processes; spectral analysis; filtering.

# EE 4700 Special Topics in Computer Engineering (3)

May be taken for a max. of 6 hrs. of credit when topics vary. Students in curricula other than computer engineering should consult the instructor. ABET category: 3 hrs. engineering science. Selected topics of current interest.

# EE 4702 Special Topics in Computer Engineering (3)

May be taken for a max. of 6 hrs. of credit when topics vary. Students in curricula other than computer engineering should consult the instructor. ABET category: 2 hrs. design; 1 hr. engineering science. Selected topics of current interest.

### EE 4720 Computer Architecture (3)

*Prereq.: EE 3752 and EE 3755 or equivalent.* Memory hierarchy; pipelining techniques; design philosophies; parallel computing fundamentals.

### EE 4730 3D Graphical and Geometric Modeling (3)

*Prereq.: CSC 3102 and MATH 2090 or equivalent in the areas of C/C++ programming and linear algebra.* Theory and design in computer graphics modeling and processing; 3D shape representation and manipulation; interactive 3D shape design, deformation and editing.

# EE 4740 Discrete Structures for Computer Engineering (3)

*Prereq.: EE 2741 or equivalent.* Mathematical logic and proof methods; graph theory; complexity of algorithms; algebraic structures; applications in computer engineering.

### EE 4745 Neural Computing (3)

*Prereq.*: EE 2810. Neural networks and automata; network architecture; learning models; applications to signal processing, vision, speech, and robotics; VLSI implementations.

# EE 4750 Microprocessor Interfacing Techniques (3)

Prereq.: EE 3752.

*2 hrs. lecture; 2 hrs. lab.* Theory and design techniques of microprocessor interfaces to memory and input/output devices.

# EE 4755 Digital Design Using Hardware Description Languages (3)

*Prereq.: EE 3755 or equivalent.* Design of digital systems using a hardware description language (HDL). Basic and intermediate language topics; structural and behavioral models as synthesis sources; synthesis tools; coding for efficient synthesis; coding strategies for common digital circuits.

### EE 4770 Real Time Computing Systems (3)

Prereq.: EE 3752 or equivalent.

Real time computing systems; systems components, architectures, I/O structure, interrupts, interfacing, A/D converters and multitasking.

# EE 4775 Networked Games and their Algorithms (3)

*Prereq.: CSC 3102 or equivalent.* Algorithms for computer games including path finding and artificial intelligence. Compensating for latency and bandwith constraints in massively multiplayer online games.

### **EE 4780** Introduction to Computer Vision (3) *Prereq.: EE 2810.*

Computer processing of images, including image acquisition systems and computer systems for processing images; preprocessing techniques; image segmentation; emphasis on design of image processing software.

# EE 4790 Structure of Computers and Computations I (3)

*Prereq.: CSC 3102 and EE 3755.* Hardware and software complexity analyses; structures of both computers and computations.

### EE 4810 Senior Design I (3)

Prereq.: ENGL 2000, EE 3610 or EE 3752, senior standing in the College of Engineering, and one of EE 3160, EE 3220, EE 3410, EE 3530, EE 3755. 2 hrs. lecture, 2 hrs. lab. Senior design projects.

### EE 4820 Senior Design II (3)

Prereq.: EE 4810. 6 hrs. lab. Continuation of senior design projects from EE 4810. Construction and test.

### EE 4859 Digital Media Capstone (3)

Prereq.: At least 15 hours credit towards the Digital Media TECH minor. Credit will not be given for both EE 4859 and ART 4059. 2 hrs. lecture, 2 hrs. lab. Culminating capstone project experience requiring interdisciplinary teams to prototype a digital media work or application.

# EE 7000 Advanced Topics in Electrical Engineering (3)

May be taken for a max. of 12 hrs. of credit when topics vary.

#### EE 7091 Electrical Engineering Research I (3)

Prereq.: permission of department. Pass-fail grading. Individual study.

### EE 7092 Electrical Engineering Research II (3)

Prereq.: EE 7091 and permission of the department. Passfail grading. Advanced individual study.

# EE 7100 Advanced Topics in Signal Processing (3)

May be taken for a max. of 12 hrs. of credit when topics vary.

# EE 7150 Theory and Application of Digital Signal Processing (3)

*Prereq.: EE 3160 or equivalent.* Digital filter design, spectrum analysis, digital hardware implementations and applications.

# EE 7160 Multirate Signal Processing and Filter Banks (3)

*Prereq.: EE 4160 or equivalent and knowledge of linear algebra and vector space analysis.* Multi-rate signal processing operations, multi-rate system analysis, maximally decimated and perfect reconstruction filter banks, time frequency analysis, and fundamentals of wavelets.

### EE 7200 Advanced Topics in Electronics (3)

May be taken for a max. of 12. hrs. of credit when topics vary.

### EE 7220 Semiconductor Devices I: Bipolar (3)

*Prereq.: EE 3232 or equivalent.* Semiconductor material properties, equilibrium and nonequilibrium processes, physical principles of p-n junctions and quasi-neutral material; modeling of diodes and bipolar transistors.

# EE 7222 Semiconductor Devices II: Field Effect (3)

*Prereq.: EE 3232 or equivalent.* Surface effects; metalinsulator-semiconductor structure; modeling of MOS capacitors and IGFETs.

### EE 7230 Physics of Device Electronics (3)

Semiconductor physics and necessary assumptions for tractable device analysis; elements of statistical physics, transport phenomena in solids, band theory of solids and semiconductor junctions.

### EE 7232 Small-Geometry and High-Speed Devices (3)

*Prereq.: EE 7230 or equivalent.* Charge carrier transport in small and high-electron mobility semiconductor devices, hot-electron effects, size effects and heterojunction boundaries, heterostructure devices, tunneling devices, ballistic transport devices and surfaces and interfaces in heterostructures.

### EE 7240 Integrated Circuit Engineering (3)

Fabrication processes and device design for monolithic integrated circuits; relation to circuit performance; thinand thick-film circuits.

### EE 7242 VLSI Systems (3)

*Prereq.: consent of instructor.* Design and implementation of very large scale integrated systems; structured design methodology using MOS technology.

### EE 7244 Advanced Lithography and Metrology (3)

*Prereq.: EE 7240 or consent of instructor.* Physical principles used in state-of-the-art microlithography; optical systems, x-rays, e-beams, resists, measurement and inspection techniques.

### EE 7246 Integrated Sensors and Actuators (3)

*Prereq.: EE 7240 and EE 4242 or consent of instructor.* Sensor principles and design considerations; bulk and surface micromachining fabrication technologies including LIGA; microactuators and microelectromechanical devices; integration of sensors/actuators and electrical circuitry on the same chip.

### EE 7247 BioMEMS (3)

*Prereq.: consent of instructor.* Fundamentals and fabrication techniques of biomicroelectromechanical systems (BioMEMS); technical issues and applications of biomedical microdevices; emerging BioMEMS and lab-on-a-chip technologies.

# EE 7248 Mixed-Signal Integrated Circuit Design (3)

*Prereq.: EE 4240 and EE 4242 or consent of instructor.* Design and technology of analog and mixed analog-digital intergrated circuits for signal processing including applications; mixed-signal integrated circuit testing and measurements.

### EE 7250 Semiconductor Power Devices (3)

*Prereq.: EE 3232 or equivalent.* Operation and characteristics of semiconductor energy conversion devices with emphasis on physical mechanisms involved; fabrication of energy conversion devices.

### EE 7260 Semiconductor Materials (3)

Theory and application of crystal growth from melt and chemical vapor deposition; preparation and purification of elemental and compound semiconductors; structural properties and their effect on electrical and physical parameters; amorphous semiconductors.

#### EE 7400 Advanced Topics in Power (3)

May be taken for a max. of 12 hrs. of credit when topics vary.

### EE 7422 Advanced Electric Machines

*Prereq.: EE 4422 or consent of instructor.* Topics on special purpose electric motors used in automation, robots and electric or magnetically levitated vehicles.

#### EE 7425 Dynamics of Microgrids (3)

*Prereq.*: EE 4412, EE 4422. Transient stability analysis in micro grids, modeling of power systems for control and stability analysis, flexible ac transmission systems, renewable energy integration, and voltage stability.

### EE 7460 Static Power Converters (3)

*Prereq.: EE 4460 or equivalent.* Design of power converters and AC drives, including voltage controllers, PWM inverters, cycloconverter and switched-mode power supplies.

#### EE 7480 Harmonics in Power Systems (3)

Power flow in nonsinusoidal systems, measurements, compensation, symmetrization and harmonic suppression.

#### EE 7490 Advanced Electrical Drives (3)

*Prereq.: EE 4490 or consent of instructor.* Advanced topics in electric drives including vector control of induction motor drives and permanent magnet synchronous motor drives.

### EE 7500 Advanced Topics in Controls (3)

May be taken for a max. of 12 hrs. of credit when topics vary.

#### EE 7510 Advanced Linear Systems (3)

Modern approaches for the analysis and identification of linear, discrete and continuous time, control systems; state variable and fractional description techniques, functional analytic methods.

### EE 7525 Robust Control (3)

*Prereq.: EE 4580.* Internal stability, model uncertainty, robust stability, robust performance, controller parameterizations, design limitations, loop shaping  $H\infty$  control and other optimal robust control design techniques.

#### EE 7530 System Identification (3)

*Prereq.: EE 4660 or equivalent.* Conventional parameter estimation and adaptive modeling; control oriented identification; model uncertainties; model validation; review of research literature on system identification.

#### EE 7560 Topics in Modern System Science (3)

Research literature, operator theory and functional analysis applied to control engineering problems.

### EE 7585 Advanced Digital Control Systems (3)

*Prereq.: EE 4585.* Theory and design of sampled-data control systems: including discretization of continuous-time systems and lifting of sampled-data systems; performance analysis in frequency and time domain; design techniques based on optimal controls; robustness analysis of sampled-data feedback control systems under plant perturbations.

#### EE 7600 Advanced Topics in Communications (3)

May be taken for a max. of 12 hrs. of credit when topics vary.

#### EE 7615 Digital Communication I (3)

*Prereq.:* EE 4660 or equivalent. Decision theory, geometric representation of signals, optimum receiver principles, digital modulation schemes, bandwidth and power efficiency, coded modulation.

### EE 7625 Advanced Topics in Digital Communications (3)

*Prereq.: EE 7615 or equivalent.* Time and Frequency domain approaches to transceiver design for communication over frequency selective, inter-symbol-interference (ISI) and multiuser channels.

#### EE 7630 Detection and Estimation Theory (3)

*Prereq.: EE 4660 or equivalent.* Hypothesis testing, detection of known and unknown signals, estimation of signal parameters, signal resolution.

### EE 7640 Information Theory, Coding and Cryptography (3)

*Prereq.: EE 4660 or equivalent.* Measures of information, channel capacity, Shannon and Huffman coding, rate-distortion theory, linear codes, cyclic codes, BCH and

Goppa codes, convolutional codes, problems of data security, probabilistic ciphers, computational complexity ciphers.

#### EE 7660 Random Processes II (3)

*Prereq.: EE 4660 or equivalent.* Sequences of random variables, renewal processes, Markov chains and queueing models.

#### EE 7674 Wireless Communication Networks (3)

*Prereq.: EE 7615.* Theory, implementation, standards and security issues in mobile wireless communication networks.

### EE 7700 Advanced Topics in Computer Engineering (3)

May be taken for a max. of 12 hrs. of credit when topics vary.

#### EE 7715 Computer Arithmetic (3)

*Prereq.: EE 3755 or equivalent.* Number systems; arithmetic algorithms; high performance adders, multipliers, dividers; floating-point arithmetic; residue number systems; hardware implementation.

#### EE 7720 Advanced Computer Architecture (3)

Also offered as CSC 7080. Prereq.: EE 4720 or equivalent. High performance computer architectures; vector processing; parallel processing and interconnection networks.

### EE 7722 GPU Microarchitecture (3)

*Prereq.*: EE 4720 *or equivalent*. Organization, programming, and design of graphics processing units (GPUs) and similar devices.

#### EE 7725 Interconnection Networks (3)

*Prereq.: EE 4720 or equivalent.* Interconnection network theory, analysis and implementation; shared memory, coherent caches and related topics.

### EE 7728 Multiprocessor Computer System Design (3)

*Prereq.: EE 4720 or equivalent.* Symmetric shared memory multiprocessors, distributed shared memory systems, simultaneous multithreading and chip-multiprocessors.

### EE 7730 Image Analysis I (3)

*Prereq.: EE 3610 or equivalent*. Basic fundamentals and techniques of digital image processing; hardware and software applications, 2D transforms, preprocessing, texture analysis and edge detection; emphasis on application of theory to practical problems.

#### EE 7750 Machine Recognition of Patterns (3)

*Prereq.: EE 4660 or equivalent and knowledge of programming language.* Decision functions; Bayesian decision theory; cluster analysis; design of deterministic, stochastic and fuzzy classifiers; unsupervised learning; feature selection.

### EE 7755 Geometric and Visual Computing (3)

*Prereq.: CSC 3102 and MATH 2090 or equivalent.* Theory ad design in graphics modeling and processing; 3D shape representation and manipulation; Interactive 3D shape design, deformation and editing.

### EE 7770 Internetworking Principles (3)

*Prereq.: EE 3710 or equivalent.* Internet concepts, networks, and transport layers, IP switching, Routing techniques, Internet security, Firewalls.

#### EE 7780 Software Design Principles (3)

*Prereq.: CSC 3102 or equivalent.* Engineering approach to computer software development; structured and modular programming concepts; software design and management; program testing and correctness proofs; diagnostic tools; software measures; other topics from software engineering.

#### EE 7785 Program Parallelization (3)

*Prereq.: EE 3755 or equivalent.* Analysis and optimization of programs for a variety of architectures; impact on architectural design.

### EE 7790 Structure of Computers and Computations II (3)

*Prereq.: EE 4790 or consent of instructor.* Mathematical treatment of space and time complexity of computations; formal models of computers and computations.

### EE 7795 Models and Methods for Parallel Computation (3)

*Prereq.: EE 4740 or consent of instructor.* Abstract models of parallel computation; algorithms, complexity and simulations.

#### EE 8000 Thesis Research (1-12 per sem.)

Prereq.: permission of department. "S"/"U"grading.

#### EE 9000 Dissertation Research (1-12 per sem.)

Prereq.: permission of department. "S"/"U"grading.

# Educational Leadership, Research & Counseling: General Courses

### ELRC 7299 Introduction to Scholarship in Education (3)

*Restricted to PhD or EdS students in the department or permission of instructor.* Introduction to scholarship in education and to demands and expectations of doctoral study.

### ELRC 7326 P-12 Career and College Readiness (3)

Designed to link elements of career, ecosystems, and lifespan development theory to practical interventions for career education and college counseling in P-12 school.

### ELRC 7612 Student Development Theory (3)

Explores the development of students in the higher education environment, including theories and research related to intellectual, moral, ego, psychosocial, career and spiritual development.

### ELRC 7811 Seminar in Current Trends in Education (3)

Open only to students who have completed qualifying examination for the doctoral degree. Current issues and trends; sources, bibliography and research in the student's major.

### ELRC 7900 Independent Study (1-6)

May be taken for a max. of 12 sem. hrs. of credit. Open to advanced graduate students. Directed individual study under the guidance of a graduate faculty member.

### ELRC 8000 Thesis Research (1-12 per sem.) "S"/"U"grading.

**ELRC 8900 Pre-dissertation Research (1-9)** *Prereq.: consent of department.* 

ELRC 9000 Dissertation Research (1-12 per sem.) "S"/"U"grading.

# Educational Leadership, Research & Counseling: Counselor Education

#### ELRC 4360 Introduction to School Counseling (3)

Introduction to the design, implementation, management and evaluation of comprehensive programs.

#### ELRC 4361 Counseling Children (3)

Introduction to methods and procedures.

### ELRC 4365 Basic Course in Interpersonal Communication (3)

*Credit will not be given for both this course and ELRC* 7345. Introduction to basic communication skills and counseling techniques.

#### ELRC 4370 Counseling Girls and Women (3)

Study of biological, psychological, and social issues that disproportionately impact girls and women's health across the lifespan. Development of skills required to address the unique counseling needs of girls and women.

### ELRC 4600 Counseling for Disabling Conditions (3)

Etiology, identification and counseling interventions for conditions and disorders which result in disablement and impaired functioning.

# ELRC 4602 Introduction to Counseling Services (3)

Overview of counseling profession; ethical and legal issues in counseling.

# ELRC 4603 Crisis Intervention and Traumatology (3)

Advanced topics in crisis counseling of children, adolescents, and adults. Emphasis is placed on learning interventions for those clients who experience a crisis or a trauma. The basics of traumatology will also be covered. Interventions discussed will be viewed through a diversity sensitive lens.

# ELRC 5300 Special Problems in Guidance and Counseling (3)

*Prereq.: consent of instructor. May be taken for a max. of 9 hrs. of credit when topics vary. 1 hr. lecture; 4 hrs. lab.* 

# ELRC 7330 Group Techniques and Dynamics in Counseling (3)

Dynamics of small group processes, theories of group counseling and basic group leadership skills.

# ELRC 7331 Counseling Theory and Techniques (3)

Review of major counseling theories and intervention methods.

### ELRC 7333 Analysis of the Individual (3)

Offered in Su Overview of selection, administration, interpretation and use of assessment and evaluation instruments and techniques in counseling.

### ELRC 7334 Vocational Counseling (3)

Also offered as HRE 7334. Materials and techniques in vocational counseling of adolescents and adults.

# ELRC 7345 Counseling Skills and Interventions (3)

*Credit will not be given for both this course and ELRC* 4365. Overview of counseling techniques and interventions to facilitate client engagement in the counseling process.

# ELRC 7348 Counseling Skills for Substance Use Problems (3)

Review assessment issues and counseling interventions for those who have substance use problems. Counselor identity and the American Counseling Association's ethical standards are examined with regards to counseling individuals with substance use problems.

# ELRC 7361 Advanced Issues in School Counseling (3)

Advanced topics in counseling children and adolescents in schools. Emphasis on advocacy, leadership, collaboration and systemic change in alignment with the American School Counseling Association National Model.

### ELRC 7362 Practicum in School Counseling (3-6)

Prereq.: ELRC 4360, ELRC 4365, ELRC 7330, ELRC 7331, ELRC 7395 and consent of instructor. 6-18 hrs. lab in work setting. Supervised experience in elementary, middle or high school settings.

# ELRC 7364 Community Agency Counseling Practicum (3-6)

Prereq.: ELRC 4365, ELRC 4600, ELRC 4602, ELRC 7330, ELRC 7331, ELRC 7395 and consent of instructor. 2 hrs. conf.; 1 hr. lab; 6-18 hrs. lab in a work setting. Supervised clinical experience in community agency settings (e.g., counseling center, mental health center).

### ELRC 7391 Counseling Across the Lifespan (3)

Offered in Su Assessment of the comprehensive development of clients and design of developmentally appropriate counseling interventions.

### ELRC 7393 Multicultural Counseling (3)

Offered in Su Overview of cross-cultural counseling skills and review of factors which influence the behaviors of individuals from diverse populations.

### ELRC 7395 Family Counseling (3)

Introduction to family system principles and their application to problem assessment, including family dynamics, family assessment, developmental stages, ethical and cultural issues.

### ELRC 7397 Special Topics in Counseling (3)

Prereq.: consent of instructor. May be taken for a max. of 6 hrs. of credit when topics vary. 1 hr. lecture; 4 hrs. lab.

### ELRC 7398 Couples and Marriage Counseling (3)

*Prereq.: Successful completion of ELRC 7395 or by discretion of the instructor.* Linking elements of counseling theory, family system theory, research and practical intervention for couple and marriage counseling.

### ELRC 7399 Supervised Counseling Internship (3-9)

Prereq.: ELRC 7362 or ELRC 7364 and consent of instructor. May be taken for a max. of 9 hrs. of credit. 2 hrs. conf.; 20-40 hrs. per week at a clinical setting, serving children, adolescents, adults or families.

### Educational Leadership, Research & Counseling: Educational Administration

# ELRC 7401 Administration of School Personnel (3)

Role of the school administrator in personnel planning, staff development and employee relationships.

# ELRC 7402 Organizational Research in Educational Administration (3)

*Prereq.: consent of instructor. Primarily for doctoral students in educational administration.* Research, bibliography and source materials; critical examination of organizational research studies.

# ELRC 7404 Internship in Educational Administration (3-6)

Prereq.: consent of instructor. Pass-fail grading. May be taken for a max. of 6 sem. hrs. of credit. For advanced graduate students qualified for internship in educational administration.

# ELRC 7407 Politics, Policy and Administration in Education (3)

*Prereq.: consent of instructor. Primarily for doctoral students in educational administration.* Critical analysis of educational policy and its development.

### ELRC 7422 Introduction to School Improvement/Action Research (3)

School effectiveness research; teacher effectiveness research; school improvement; action research; based on the knowledge of these literatures, students will be required to develop a research proposal whose objective is to improve school and/or faculty performance.

# ELRC 7423 Advanced School Improvement/Action Research (3)

*Prereq.: ELRC* 7422. Students refine and administer an action research project at a selected school site. Students will assess the success of their interventions through multiple measures and write a research report that reflects their experiences throughout the semester. In class discussions focusing on methodological difficulties that students encounter and how to overcome them.

# ELRC 7432 Best Practices of Principal Leadership I (3)

Introduction to the knowledge and experiential base to support decision-making and action at a level of whole school responsibility.

# ELRC 7433 Best Practices of Principal Leadership II (3)

*Prereq.: credit or registration in ELRC 7432.* Knowledge and experiential base to support decision-making and action at a level of whole school responsibility.

# ELRC 7434 Best Practices of Principal Leadership III (3)

*Prereq.: ELRC 7433.* Builds upon students' knowledge and experiential base to support decision-making and action at a level of while school responsibility.

# ELRC 7435 Best Practices of Principal Leadership IV (3)

*Prereq.: credit or registration in ELRC 7434.* Extends the knowledge and experiential base to support decision-making and action at a level of whole school responsibility.

# ELRC 7450 Supervision of Instruction in Elementary and Secondary Schools (3)

Theories, principles, and practices concerning the role of the supervisor in today's multicultural school settings.

### ELRC 7451 Supervision of Student Teaching (3)

Principles of planning, observing and evaluating student teaching; participation in student conferences.

### ELRC 7602 Organization and Administration of Higher Education (3)

Organization and administration of postsecondary education in the United States and abroad; organizational theory; organization and governance structure of American higher education; patterns of institutional administration.

# ELRC 7802 Theory Development in Educational Administration (3)

Prereq.: ELRC 7006, ELRC 7402 and ELRC 7407 or equivalent; and consent of instructor. Primarily for doctoral students in educational administration. Critical analysis of approaches to inquiry; development of theory in educational administration.

### ELRC 7805 Perspectives on Leadership (3)

Examines theories and practices of leadership from multiple perspectives.

### ELRC 7806 Leadership for Learning (3)

*Prereq.: ELRC 7805 or equivalent.* Examination of leadership theories and practices relevant to K-12 school settings.

# ELRC 7890 Seminar: Educational Administration (1-3)

*Prereq.: master's degree. May be taken for a max. of 9 sem. hrs. of credit when topics vary.* Advanced topics in educational administration.

# Educational Leadership, Research & Counseling: Educational Foundations

# ELRC 7000 Seminar in Philosophy of Education (3)

Offered in Su Theories of education and schooling with special focus on the context of pluralistic societies.

### ELRC 7001 Ethics and Educational Leadership (3)

Study of ethical theory, judgement and practice in educational contexts.

# Educational Leadership, Research & Counseling: Educational Research

# ELRC 4006 Introduction to Applied Statistics in Educational Research (3)

Basic descriptive and inferential statistics in educational research; systematic examination and interpretation of statistical information in published educational research.

# ELRC 4249 Understanding and Applying Research in Education (3)

For the specialist or nonthesis master's degree student. Instructing teachers and administrators to become intelligent consumers of research.

### ELRC 7006 Educational Statistics (4)

*Prereq.: ELRC 4006 or equivalent. 3 hrs. lecture; 2 hrs. lab.* Descriptive and inferential statistics in educational research, computerized data analysis using SPSS or SAS; correlation and regression; normal, t, chi-square and F distributions; hypotheses testing and interval estimation; analysis of variance, nonparametric chi-square test.

# ELRC 7010 Principles of Testing and Measurement (3)

*Prereq.: ELRC 7006.* Construction of measurement instruments for research purposes; utilization of standardized tests and inventories in research; measurement in multicultural and cross-cultural contexts; implications of measurement reliability and validity for research design and statistical analysis.

### ELRC 7016 Advanced Educational Statistics (4)

*Prereq.: ELRC 7006 or equivalent. 3 hrs. lecture; 2 hrs. lab.* Advanced statistical procedures and computerized data analysis using SPSS or SAS; analysis of variance and covariance; application of multiple regression techniques in educational research.

### ELRC 7220 Education Program Evaluation (3)

*Prereq.:* ELRC 4249 and either ELRC 4006 or ELRC 7006. Current models and issues in educational evaluation as a professional practice; design and development of a comprehensive evaluation plan that includes specification of theoretical framework, problem identification, data collection/analysis procedures, report writing format and dissemination plans.

# ELRC 7241 Educational Research Methodology (3)

*Prereq.: ELRC 4006 or ELRC 7006. Completion of a research proposal, preferably a pre-dissertation proposal, is required.* Comprehensive and general review of qualitative and quantitative research methods in education.

# ELRC 7243 Qualitative Methods in Educational Research (4)

Prereq.: ELRC 4249 or ELRC 7241. 3 hrs. lecture; 2 hrs. lab. Introduction to qualitative research traditions and methods in education, including: ethnography, grounded theory, and case study; major methods including observational techniques, interviewing and document analysis; philosophical issues regarding the qualitative research approach; emphasis on qualitative data analysis, including the use of computer programs, such as ATLAS.ti.

### ELRC 7248 Introductory Research Practicum (3)

By arrangement with a state agency, a local school system or other educational agency, students assist in the conducting of a variety of research methodologies under the supervision of the course instructor and the professional practice supervisor at the site.

### ELRC 7249 Advanced Research Practicum (3)

*Prereq.: ELRC 7248.* By arrangement with a state agency, a local school system or other educational agency, students assume a leadership role in conducting research studies under the supervision of the course instructor and the professional practice supervisor at the site.

# ELRC 7270 Mixed Methods Research in Education (3)

*Prereq.: ELRC 4249 or ELRC 7241.* Mixed methods as a separate research methodology integrating both the quantitative and the qualitative approaches.

### ELRC 7280 Content Analysis (3)

*Prereq.: ELRC 4249 or ELRC 7241.* Principles, theories and strategies for systematically examining the content of textual and other mediated communication.

# ELRC 7290 Seminar: Educational Research Methodology (1-3)

May be taken for a max. of 9 sem. hrs. of credit when topics vary. Advanced topics in educational research methods.

# Educational Leadership, Research & Counseling: Educational Technology

# ELRC 2507 Introduction to Classroom Technology (3)

Introduction to technology tools and effective technology integration methods to enhance student learning.

# ELRC 3500 Utilization of Instructional Materials (3)

Open only to candidates for teacher certification. Basic techniques for preparing effective instructional materials.

# ELRC 4507 Computer Technology in Education (3)

Applications of computers in instruction; educational data processing, computer-assisted and computer-managed instruction; information storage and retrieval; use of micro/mini computers.

### ELRC 4535 Educational Telecommunications and the Internet (3)

*Prereq.: ELRC* 4507 or equivalent. 2 hrs. lecture; 2 hrs. lab. Use of telecommunication tools found in educational settings; integration of telecommunications resources into instruction; research using the World Wide Web; design, development and evaluation of Web-based materials that include multimedia; security and legal issues; configuration of school and district networks; distance education applications; and emerging trends and research issues.

# ELRC 7240 Critical Analysis of Current Research in Educational Media (3)

Offered in Su *Prereq.: ELRC 4507 or equivalent.* Analysis of current literature in the field; evaluation of current and needed research; systems approach to solving instructional problems.

#### ELRC 7420 Administration of Technology Programs (3)

Prereq.: ELRC 4507 or consent of instructor. Primarily for personnel responsible for planning, implementing and evaluating educational technology programs. Topics include applications, facilities, finances, acquisitions and staff development.

# ELRC 7500 Technology in Educational Leadership (3)

Overview of salient advances in theory, research and practice in educational technology; examining leadership roles in regard to emerging trends and issues in educational technology; analyzing current technology integration models.

### ELRC 7502 Principles of Distance Education (3)

*Prereq.: ELRC 4507 or consent of instructor.* Applications of the principles of distance education to teaching and learning in educational and training contexts.

#### ELRC 7503 Instructional Design (3)

*Prereq.: ELRC 4507 or approved equivalent.* Instructional design theories and models and their application in solving real world instructional/learning problems.

# ELRC 7505 Design and Development of Multimedia Instructional Units (3)

*Prereq.: ELRC 4507 and ELRC 7503 or equivalent.* Instructional design for computer-assisted instruction; emphasis on learning theory, events of instruction, structuring instructional sequences for maximum content retention.

#### ELRC 7516 Practicum in Educational Media (3-6)

Prereq.: ELRC 7420 or ELRC 7505; or consent of instructor. 9-18 hrs. lab. Practical experience in teaching, producing, utilizing and administering educational media.

### ELRC 7517 Seminar in Educational Media (3)

*Prereq.: ELRC 7240 and ELRC 7420 or consent of instructor.* Advanced topics in instructional technology.

# ELRC 7525 Professional Development for K-12: Technology Integration (3)

Analyze effective professional development strategies; plan, design and implement and evaluate technology staff development activities.

### ELRC 7535 Advanced Telecommunications and Electronic Learning (3)

*Prereq.: ELRC 4507 or consent of instructor.* Scope and elements of the online environment; technologies and strategies for online teaching and learning; design, development or conversion of courses for online delivery; course management, assessment and evaluation; policy issues.

# ELRC 7550 Theory and Research in Educational Technology (3)

*Prereq.: ELRC 7240 and ELRC 7503. For advanced graduate students.* Theoretical foundations and research in educational technology; emphasis on theories of communication, learning theories, educational psychology and behavioral sciences.

# Educational Leadership, Research & Counseling: Higher Education

# ELRC 4364 Student Affairs in Higher Education (3)

Basic concepts and issues in the college student affairs field.

### ELRC 7600 Issues of Race and Gender in Higher Education (3)

Historical and socio-political perspectives on the higher education experiences of women, African-Americans, Asian-Americans and Hispanics, focusing primarily on the period from the 1960s to the present.

### ELRC 7601 Foundations of Higher Education (3)

History of the sociological and philosophical foundations for higher education in the United States.

### ELRC 7603 Leadership in Higher Education (3)

Analysis of leadership issues and theory relating to postsecondary education, including the college presidency and academic governance; institutional culture; student diversity, curricular change and new providers of higher education.

#### ELRC 7605 Higher Education and the Law (3)

Legal issues concerning higher education, including tenure, academic freedom, campus crime, sexual harassment, laws against discrimination, student discipline and liability for accidents and injuries.

#### ELRC 7606 Curriculum and College Teaching (3)

Critical analysis of college curriculum and approaches to teaching; historical development of curricular models; introduction to teaching and learning theories.

# ELRC 7609 Strategic Planning in Higher Education (3)

Strategic plans for institutions of higher education; processes by which those plans are developed; higher education strategy within the context of the cultural and competitive environment; emphasis on current topics in organizational strategy.

### ELRC 7610 Assessment and Evaluation in Higher Education (3)

Analysis of assessment and evaluation practices in higher education; role of assessment in policy development and strategic planning.

# ELRC 7611 College Students in the United States (3)

Critical analysis of issues related to college students in the United States, including access, choice, climate, student organizations and development and identity.

### ELRC 7613 The Community College (3)

An overview of two-year, post-secondary institutions in the United States examining historical foundations and critiquing current issues, trends, and challenges.

### **Environmental Management Systems**

#### EMS 1011 Environment and Technology: Perspective on Environmental Problems (3) See ENVS 1000.

#### EMS 2011 Analysis of Environmental Issues (3)

Also offered as AGRO 2011 and HORT 2011. Prereq.: ENGL 1001. An introduction to reading, writing and speaking in the sciences, with an emphasis on environmental topics.

#### EMS 2051 Soil Science (4)

See AGRO 2051.

#### EMS 3040 Applied Environmental Management (4)

*Prereq.: EMS 1011, ENGL 2000. 3 hrs. lecture; 3 hrs. lab.* Applications of planning, management and decisionmaking to environmental policy, systems and management; evaluation of environmental decision making; environmental ethics; analysis of environmental issues at the local, state and national levels.

#### EMS 3045 Soil Conservation (2)

See AGRO 3040.

### EMS 3050 Environmental Regulations and Compliance (3)

*Prereq.: EMS 1011, ECON 2030 or AGEC 2003.* Local, state and federal environmental regulations; enforcement of and compliance with regulations; roles of regulatory agencies.

#### EMS 3090 Environmental Internship (3)

Prereq.: permission of department and junior standing. Credit will not be given for this course and AGRO 3090. Professional experience in some aspect of environmental management; student must submit a proposal explaining internship goals and education component; reports, employer evaluation, paper and presentation are required.

### EMS 4010 Applied Ecology (2)

See ENVS 4010.

### EMS 4020 Quantitative Risk Assessment (3)

*Prereq.: six hours of chemistry and six hours of biological sciences, MATH 1431 or equivalent.* Assessment of environmental risks; interactions of pollution/toxins with the human body; managing and predicting risks.

# EMS 4040 Environmental Instrumental Analysis (3)

*Prereq.: CHEM 1201, CHEM 1202, CHEM 1212, CHEM 2001. 2 hrs. lecture; 2 hrs. lab.* Analysis of pollutants in the environment; development of analytical technique; sampling of different media including soil and water.

### EMS 4055 Chemical Properties of Soil (4) See AGRO 4055.

EMS 4056 Microbial Ecology and Nutrient Cycling in Soils (4) See AGRO 4056 or BIOL 4256.

EMS 4077 Environmental Soil Physics (3) See AGRO 4077.

EMS 4087 Best Practices for Environmental Sustainability in Agriculture (3) *See AGRO 4087.* 

#### EMS 4999 Senior Project in Environmental Management (1-3)

Prereq.: permission of department, senior standing, and a minimum GPA of 3.00 on all course work taken in the major. This course may be repeated for up to 6 hrs. of credit. Course may not be taken for graduate credit. Student will develop and submit a research proposal to the faculty; student will work on a specific project under the supervision of a faculty member. This course is intended to prepare students for graduate work in some area of environmental management.

**EMS 7010 Teaching Practicum (1)** See AGRO 7010.

### Engineering

**ENGR 1050 Introduction to Engineering (2)** Introduction to engineering history, disciplines and

#### ENGR 2050 Undergraduate Seminar (1)

principles of design.

*Pass-Fail grading*. For engineering students only. Topics related to academic, professional and career development for engineering students. Speakers will include on-campus representatives, industrial, governmental and consulting professionals and education experts.

# ENGR 2785 Manufacturing, Technology & Society (3)

Offered in Su History and development of manufacturing and technology and its influence on production, society and environment. Course available only as part of a study abroad program.

### ENGR 3100 Introduction to Robotics (3)

Also offered as KIN 3100. Prereq.: ME 2543 or IE 2060 or CSC 1253 or CSC 1350; MATH 2070 or MATH 2085 or MATH 2090. 2 hrs. lecture; 3 hrs. lab. Introduction to robotics and their applications. Sensors and DAQ; robotic actuators and mobility mechanisms; robot motion control; robot communications; behavioral control; navigation and mapping; robot coordination; human-robot interaction.

#### **ENGR 4100 Industrial Robotics (3)**

Also offered as KIN 4100. Prereq.: ENGR 3100/KIN 3100 or equivalent; ME 3133 or CE 2460 or equivalent; experience in MATLAB. 2 hrs. lecture; 3 hrs. lab. Robot manipulator kinematics; dynamics; trajectory planning; motion/force control; manipulator actuators and sensors.

#### ENGR 4103 Assistive Robotics (3)

*Prereq.*: ENGR 3100/KIN 3100. 2 hrs. lecture; 3 hrs. lab. Design, application, and evaluation of human assistive, augmentation, and wearable robotics.

#### ENGR 4200 Autonomous Vehicles (3)

Also offered as KIN 4200. Prereq.: ENGR 3100/KIN 3100 or equivalent; experience in MATLAB. 2 hrs. lecture; 3 hrs. lab. Vehicle kinematics, motion control, perception, localization, path planning, and navigation.

# ENGR 7050 Future Faculty Development Seminar (2)

*Pass-fail grading.* Open to all engineering and construction management graduate students. Provides fundamental skill sets and knowledge needed to successfully prepare for an academic career in engineering.

#### ENGR 9000 Dissertation Research (1-12 per sem.)

"S"/"U"grading.

### English

Students who are not exempt will be required to pass one, two, or three English composition courses. Placement level depends on ACT/SAT/AP scores or prior college credit. Required courses must be taken progressively. The completion of ENGL 2000 or its equivalent (ENGL 1005 for international students or approved transfer credit) is required of all students.

The satisfactory completion of ENGL 1001 or equivalent credit is prerequisite for all English courses numbered 2000 and higher.

#### ENGL 1000 English for Academic Success (3)

For international students admitted to LSU whose English language proficiency diagnostic tests indicate the need for intensive work in college composition. Required for the first semester of study for all such international students. Introduction to elements of academic writing, grammar, and style.

#### **ENGL 1001 English Composition (3)**

[LCCN: CENL 1013, English Composition I] This is a General Education course. *Placement by department*. Introduction to analytical writing and research-based inquiry.

### ENGL 1004 English Composition (3)

This is a General Education course. Same as ENGL 1001, with emphasis on usage and idiom problems specific to international students. Prereq.: Placement by department and permission of instructor. Required during the first semester of residence for all international students (graduates, undergraduates and transfer students) who demonstrate on the placement examination need for work in English, but not at the intensive level of ENGL 0004. Graduate students graded pass-no credit.

#### ENGL 1005 English Composition (3)

This is a General Education course. *Prereq.: ENGL 1004* or placement by the department and permission of instructor. Graduate students graded pass-no credit. Credit will not be given for both 1005 and ENGL 2000. For international students, with continued work on problems specific to international students.

### ENGL 1051 Spoken English for International Graduate Assistants (3)

Prereq.: oral interview and permission of department. Pass/no credit grading. May be taken for a max. of 9 sem. hrs. of credit. For current and potential international graduate assistants only. Developing spoken English skills (pronunciation, stress, intonation, rhythm); improving overall comprehensibility through tasks/activities, drills and videotaped oral presentations.

#### ENGL 2000 English Composition (3)

[LCCN: CENL 1023, English Composition II] This is a General Education course. *Prereq.: ENGL 1001 or equivalent and 39 total credit hours earned by the time of enrollment.* Practice in argument writing and research-based inquiry.

#### ENGL 2001 Advanced English Composition (3)

*Credit will not be given for both ENGL 2001 and ENGL 3101.* Theory and practice of exposition, description and narration.

#### ENGL 2002 Business Writing (3)

[LCCN: CENL 2513, Foundations of Professional Writing (Lower Level)] *Credit will not be given for both ENGL* 2002 and ENGL 2102. Preparing business documents such as reports, articles and letters.

#### ENGL 2004 Intro to Writing Creative Nonfiction (3)

*3 hr. seminar.* Writing creative nonfiction for workshop criticism; introduction to reading and crafting memoir, essays and literary journalism with focus on practice and techniques in form (academic, personal, and cultural), imaginative style and structure, tone, and persona.

# ENGL 2005 Introduction to Writing Short Stories (3)

[LCCN: CENL 2523, Creative Writing (Various Genres)] Prereq.: ENGL 2024, ENGL 2025, ENGL 2027, ENGL 2029, ENGL 2123, ENGL 2148, ENGL 2201, ENGL 2202, ENGL 2231, ENGL 2270, ENGL 2593, ENGL 2673 or ENGL 2674. Writing short stories for workshop criticism; practice in techniques of using point of view, dialogue, setting and characterization.

### ENGL 2007 Introduction to Writing Poetry (3)

[LCCN: CENL 2523, Creative Writing (Various Genres)] Prereq.: 3 hrs. from ENGL 2024, ENGL 2025, ENGL 2027, ENGL 2029, ENGL 2123, ENGL 2148, ENGL 2201, ENGL 2202, ENGL 2231, ENGL 2270, ENGL 2593, ENGL 2673, or ENGL 2674. Writing poems for workshop criticism; practice in both open and closed forms; emphasis on contemporary techniques and prosody.

### ENGL 2008 Introduction to Writing Drama (3)

[LCCN: CENL 2523, Creative Writing (Various Genres)] *Also offered as THTR 2008*. Writing plays for workshop criticism; practice in techniques of exposition, characterization and dramatization.

# ENGL 2009 Introduction to Writing Screenplays (3)

[LCCN: CENL 2523, Creative Writing (Various Genres)] Prereq.: 3 hrs. from ENGL 2024, ENGL 2025, ENGL 2027, ENGL 2029, ENGL 2123, ENGL 2148, ENGL 2201, ENGL 2020, ENGL 2220, ENGL 2231, ENGL 2270, ENGL 2593, ENGL 2673 or ENGL 2674. Writing screenplays for workshop criticism; techniques of exposition, characterization and dramatization.

#### ENGL 2012 Practical Grammar and Usage (3)

Practical grammar, usage and punctuation; effective word choices and sentences; elimination of common errors; use of dictionaries; current language controversies, regional and social language variation.

### ENGL 2024 Critical Strategies (3)

This is a General Education course. *Credit will not be given for both this course and ENGL 2824.* Skills for reading and writing about literature from a variety of critical perspectives; approaches such as reader response, psycho-analysis, myth, new historicism and feminism applied to a range of literary texts.

### ENGL 2025 Fiction (3)

[LCCN: CENL 2303, Introduction to Fiction] This is a General Education course. 2 hrs. lecture; 1 hr. recitation. Skills for reading and writing about fiction; attention to generic conventions and critical perspectives; section emphasis may vary, consult departmental handout.

#### ENGL 2027 Poetry (3)

[LCCN: CENL 2313, Introduction to Poetry/Drama] This is a General Education course. Skills for reading and writing about poetry; attention to generic conventions and critical perspectives; section emphasis may vary, consult departmental handout.

### ENGL 2029 Drama (3)

[LCCN: CENL 2313, Introduction to Poetry/Drama] This is a General Education course. Skills for reading and writing about drama; attention to generic conventions and critical perspectives; section emphasis may vary, consult departmental handout.

### ENGL 2085 Science Fiction Studies (3)

Science fiction literature, particularly that of the 20th century.

### ENGL 2086 Fantasy Literature (3)

Variety of literary types employing conventions of the fantastic; uses of older literatures in modern fantasy novels; themes such as quest for identity, ideal of the hero and nature of good and evil.

### ENGL 2102 Business Writing for International Students (3)

*Credit will not be given for both ENGL 2002 and 2102.* Preparing business documents such as reports, articles and letters; oral presentation of reports.

### ENGL 2123 Studies in Literary Traditions and Themes (3)

[LCCN: CENL 2103, 2113, 2153, 2163, 2323, British Literature I, II, American Literature I, II, Introduction of Literature] This is a General Education course. *Credit will not be given for both this course and ENGL 2823. 2 hrs. lecture; 1 hr. recitation.* Skills for reading and writing about literature; attention to historical development, context and critical perspectives; topics such as "The Epic," "Imagining the Family," "Literature and the City"; section emphasis will vary, consult departmental handout.

#### ENGL 2148 Shakespeare (3)

This is a General Education course. 2 hrs. lecture; 1 hr. recitation. The more popular plays.

#### ENGL 2173 Louisiana Literature (3)

Fiction, poetry, essays and drama of Louisiana.

# ENGL 2201 Introduction to World Literary Traditions (3)

[LCCN: CENL 2203, 2223, World Literature I, Major World Writers] This is a General Education course. See CPLT 2201.

### ENGL 2202 Introduction to Modern World Literature (3)

[LCCN: CENL 2213, 2223, World Literature II, Major World Writers] This is a General Education course. See CPLT 2202.

#### ENGL 2220 Major British Authors (3)

[LCCN: CENL 2103, 2113, 2123, British Literature I, II, Major British Writers] This is a General Education course. Selected major British authors from the Anglo-Saxon period to the present.

### **ENGL 2222 Popular Fictions (3)**

Critical analysis of popular literature, television programs, films and advertisements; emphasis on development of textual interpretative skills.

### ENGL 2231 Reading Film (3)

This is a General Education course. 2 hrs. lecture; 1 hr. recitation. Introduction to analytical study of film; mastery of film language through formal, cultural, and theoretical approaches to film study; emphasis on writing about film.

#### ENGL 2270 Major American Authors (3)

[LCCN: CENL 2153, 2163, 2173, American Literature I, II, Major American Writers] This is a General Education course. Selected major American authors from the Colonial period to the present.

#### ENGL 2300 Interpreting Discourse (3)

This is a General Education course. Study of and writing about discourse forms (fiction, popular and critical texts, technical and legal documents), using linguistic, rhetorical and cultural analysis.

### ENGL 2423 Introduction to Folklore (3)

[LCCN: CENL 2503, Mythology or Folklore] This is a General Education course. *Also offered as ANTH 2423*. Folklore genres of the world; sources of folklore; literary, psychological, sociological, anthropological and historical approaches to folk material; relationships between folklore and written literature.

#### ENGL 2593 Images of Women: An Introduction (3)

[LCCN: CENL 2413, Introduction to Women's Literature] This is a General Education course. Critical analysis of women's representations, addressing a range of traditional and/or popular genres, historical periods and/or critical approaches; emphasis on developing textual and interpretive skills; section emphasis may vary, consult departmental handout.

#### ENGL 2673 Literature and Ethnicity (3)

This is a General Education course. Literature of America's ethnic cultures.

### ENGL 2674 Introduction to African-American Literature (3)

[LCCN: CENL 2403, Introduction to African American Literature] This is a General Education course. Major figures and popular texts of black American literature, including writers of fiction, poetry, drama and essays; influence of genre on the articulation of common political and social themes.

#### ENGL 2710 Descriptive Grammar of English (3)

*Also offered as LING 2710.* Examination of what every English speaker has internalized about English, including sentence structure, sound patterns and word formation.

# ENGL 2716 Language Diversity, Society, & Power (3)

This is a General Education course. *Also offered as LING* 2716. Social construction of language ideologies and issues of power as they relate to language variation and use. Examination of why language variation exists and how dialect intersects with race, gender, and social class, with particular focus on political and social identities. Discussion focus on how dialects and "Standard English" contribute to persistent economic and civic inequalities in contemporary American society.

#### ENGL 2823 HONORS: Studies in Literary Traditions and Themes (3)

This is a General Education course. *Honors equivalent of ENGL 2123. Credit will not be given for both this course and ENGL 2123.* 

# ENGL 2824 HONORS: Critical Analysis of Literature (3)

This is a General Education course. *Honors equivalent of ENGL 2024. Credit will not be given for both this course and ENGL 2024. Study and writing about literary forms.* 

#### ENGL 2920 Independent Work (1)

Prereq.: sophomore standing and an average of not less than 2.00 in all previous English courses. Consult department before registering. Reading, conferences and reports under departmental faculty direction.

### ENGL 2921 Independent Work (1)

Prereq.: sophomore standing and an average of not less than 2.00 in all previous English courses. Consult department before registering. Reading, conferences and reports under departmental faculty direction.

#### ENGL 2922 Independent Work (1)

Prereq.: sophomore standing and an average of not less than 2.00 in all previous English courses. Consult department before registering. Reading, conferences and reports under departmental faculty direction.

#### ENGL 3000 HONORS: Honors Thesis (3)

Conclusion of the English honors program; for details, consult the department.

#### ENGL 3002 Technical Writing (3)

*Prereq.: junior status. Credit will be given for only one of the following: ENGL 3002, ENGL 3003 and ENGL 3102.* Training in skills required of practicing scientists, engineers and technical managers.

### ENGL 3003 Technical Writing for Nontechnical Majors (3)

Prereq.: junior status. Credit will not be given for both ENGL 3002 and 3003 and ENGL 3102. This course will not substitute for ENGL 3002 requirement. Formats and processes of writing found in business, science, government and industry.

### ENGL 3004 Writing with Style: Advanced Expository Prose (3)

Experimentation with different styles of writing in a workshop format.

#### ENGL 3015 Composition Tutoring (3)

*Prereq.: consent of instructor. 1 hr. lecture; 6 hrs. lab.* Composition theory as applicable to undergraduate tutoring.

# ENGL 3020 British Literature I: The Middle Ages, Renaissance and 18th Century (3)

Survey of English literature from the Anglo-Saxon period through Chaucer, Shakespeare, the 17th and 18th centuries.

### ENGL 3022 British Literature II: Romantics, Victorians and Moderns (3)

Survey of British literature from the French Revolution through the Industrial Revolution into the 20th century.

### ENGL 3024 Criticism (3)

Influential works of literary criticism from the classical to the modern period.

### ENGL 3070 American Literature I: Forging a Nation (3)

Emergence of an American literature and national consciousness in major writings from the Colonial era to the Civil War.

# ENGL 3072 American Literature II: Coming of Age (3)

American literature from the Civil War to the present; realism, naturalism, modernism; effects of industrialization, immigration, the women's movement, the civil rights struggle, the world wars.

#### ENGL 3080 Post-colonial Literature (3)

Survey of literature from former British colonies in South Asia, Africa and the Caribbean; colonialism; nationalism; independence; diaspora; transnationalism; hybridity; women's rights; building a new nation, etc.

### ENGL 3084 Modern Criticism (3)

Influential works of literary criticism and theory written in the 20th century.

### ENGL 3086 Contemporary Fiction (3)

Survey of contemporary fiction from a comparative perspective; authors such as Achebe, Bellow, Garcia Marquez, Lessing, Morrison, Pynchon, Updike; developments in magical realism, minimalism, cyberpunk.

### ENGL 3101 Legal Writing (3)

*Credit will not be given for both this course and ENGL 2001.* Discussions and writing assignments tailored to forms of writing common in law and in law-related fields; emphasis on writing clear, precise, effective prose.

# ENGL 3102 Technical Writing for International Students (3)

*Prereq.: junior status. Credit will be given for only one of the following: ENGL 3002, ENGL 3003, 3102.* Training for non-native speakers of English in skills required of practicing scientists, engineers and technical managers.

### ENGL 3124 The Literature of the English Bible (3)

*Also offered as REL 3124.* Literary themes and forms in the King James version; particular reference to the literary influence of the Bible on later literature.

# ENGL 3133 Introduction to Nonfiction Film and Video (3)

Historical and theoretical background in the genre; filmmakers such as Grierson to Varda, Moore, McElwee, Folman, Caouette. Production work when chosen by students.

# ENGL 3203 Introduction to English Secondary Education (3)

*Prereq.: EDCI 2001. Coreq.: EDCI 3001.* Introduction to central theories and topics in the teaching of Secondary English Language Arts, including language development and diversity, the multiplicity of literacy practices and platforms, and reading and writing for real world purposes.

### ENGL 3220 Major Themes in Literature (3)

May be taken for a max. of 6 hrs. of credit. Consult department for topic to be offered. Examination of a particular theme (e.g. revolution, quest, or spiritual crisis) in the works of several authors crossing historical and cultural boundaries.

#### ENGL 3222 Survey of Popular Genres (3)

Survey of such genres as ballads, miracle and morality plays, broadsides, melodrama, romance, detective fiction, science fiction, westerns, situation comedies.

#### ENGL 3223 Adolescent Literature (3)

See also EDCI 3223. Critical analysis and survey of literatures with adolescents as main characters and written for adolescent and adult audiences.

### ENGL 3300 Rhetoric: Texts and Historical Contexts (3)

Development of rhetoric and writing within their cultural contexts; modes of writing and rhetoric particular to historical periods, classical to modern.

# ENGL 3301 Writing: Practice, Pedagogy and History (3)

Cultural, technological and historical influences on writing, the teaching of writing and today's teaching practices.

# ENGL 3310 Historical Perspectives on Language Issues (3)

Also offered as LING 3310. A writing intensive course. Survey of major issues in the history of language study.

### ENGL 3384 Cultural and Textual Studies (3)

Introduction to the theory and practice of cultural studies; reading of theoretical statements; analysis of exemplary texts (films, videos, literary works, autobiographies, historical and legal documents).

### ENGL 3401 The Study of Folklore (3)

See ANTH 3401.

#### ENGL 3593 Survey of Women and Literature (3)

Significance of gender for the author, the reader and the work itself; connections between texts and society; literary influences and relations between mainstream and nontraditional literature.

### ENGL 3674 Survey of African-American Literature (3)

Literature of the black experience in the U.S. from slave narratives to the present.

#### ENGL 3716 Dialects of English (3)

Also offered as LING 3716. Regional and/or social variation in pronunciation, grammar and vocabulary.

### ENGL 3720 Methods for Teaching English as a Second Language (3)

*Also offered as LING 3720.* Theories and practical approaches for teaching English as a second language to elementary, secondary and adult education students.

#### ENGL 3821 HONORS: Seminar (3)

Prereq.: permission of department. Normally open only to juniors and seniors. Topics vary, consult departmental handout.

#### ENGL 3822 HONORS: Seminar (3)

Prereq.: permission of department. Normally open only to juniors and seniors. Topics vary, consult departmental handout.

#### ENGL 3824 HONORS: Seminar (3)

Prereq.: permission of department. Normally open only to juniors and seniors. Topics vary, consult departmental handout.

### ENGL 3825 HONORS: Seminar (3)

Prereq.: permission of department. Normally open only to juniors and seniors. Topics vary, consult departmental handout.

#### ENGL 3920 Independent Study (1-3)

*May be taken for a max. of 3 hrs. of credit.* Readings, reports and conferences under departmental faculty direction.

### ENGL 3925 HONORS: Independent Work (1)

Prereq.: GPA of at least 3.00 in all work taken and permission of department. May not be taken by students who have already completed ENGL 2920, ENGL 2921, ENGL 2922. Consult department before scheduling course. Reading, conferences and reports under departmental faculty direction.

### ENGL 3927 HONORS: Independent Work (1)

Prereq.: GPA of at least 3.00 in all work taken and permission of department. May not be taken by students who have already completed ENGL 2920, ENGL 2921, ENGL 2922. Consult department before scheduling course. Reading, conferences and reports under departmental faculty direction.

### ENGL 3929 HONORS: Independent Work (1)

Prereq.: GPA of at least 3.00 in all work taken and permission of department. May not be taken by students who have already completed ENGL 2920, ENGL 2921, ENGL 2922. Consult department before scheduling course. Reading, conferences and reports under departmental faculty direction.

### ENGL 3930 Internship in English (1-3)

*Prereq.: permission of department. Normally open to only juniors and seniors. May be taken for a max. of 3 sem. hrs. of credit.* Program of study, research project, book discussion, conferences with faculty mentor, and work in a position related to writing and critical analysis, such as editing and publishing.

# ENGL 4000 Special Projects for Creative Writing Majors (3)

Prereq.: permission of department; at least one 2000-level course in creative writing. May be taken for a max. of 6 sem. hrs. of credit when topics vary. Explorations in a wide variety of projects that basic courses are unable to accommodate.

### ENGL 4001 Writing Essays and Reviews (3)

*Prereq.: at least one 2000-level course in creative writing.* Memoirs, essays and journalism as literary forms, with guided practice in techniques and form.

# ENGL 4002 Scientific and Professional Writing for Peers (3)

Individual instruction. Students must have well-defined projects. Credit will not be given for this course and OCS 4038. Principles and practice of effective research writing in academic and professional settings; emphasis on translating research results into publishable articles and effective grant proposals.

#### ENGL 4005 Short Story Writing (3)

*Prereq.: ENGL 2005.* Guided practice in short story writing; techniques involved.

#### ENGL 4006 Writing the Novel (3)

*Prereq.: at least one* 2000-*level course in creative writing.* Guided practice in writing the novel; techniques involved.

#### ENGL 4007 Writing Poetry (3)

*Prereq.: ENGL 2007.* Guided practice in writing poetry; techniques involved.

#### ENGL 4008 Writing Drama (3)

Also offered as THTR 4008. Prereq.: at least one 2000level course in creative writing. Guided practice in writing plays; techniques involved.

# ENGL 4009 Advanced Screenwriting Workshop (3)

*Prereq.: consent of instructor and ENGL 2009.* Practice in advanced screenwriting; students will be required to write a full-length screenplay or teleplay.

### ENGL 4023 Studies in Life Writing (3)

May be taken for a max. of 6 sem. hrs. of credit when topics vary. Authors such as St. Augustine, Margery Kempe, Montaigne, Rousseau, Franklin, Douglass, Adams, Stein, Malcolm X; topics such as "Autobiography, Memoir, and Diary," "Biography," "Slave Narrative," "Autobiographical Fiction."

# ENGL 4027 Studies in Lyric, Epic and Other Poetic Forms (3)

May be taken for a max. of 6 sem. hrs. of credit when topics vary. Poets such as Sidney, Spenser, Milton, Wordsworth, Keats, Dickinson, Whitman, Yeats, Stevens, Wheatley, Rich; topics such as "Development of the English Epic," "Love Lyrics and the Representation of Women."

### ENGL 4028 Studies in Drama (3)

May be taken for a max. of 6 sem. hrs. of credit when topics vary. Authors such as Marlowe, Jonson, Congreve, Sheridan, Shaw, Synge, O'Neill, Miller; topics such as "The Beginnings of English Drama," "Shakespeare's Contemporaries," "Irish Drama," "Women in the Theatre."

### ENGL 4040 Studies in the Age of Elizabeth (3)

May be taken for a max. of 6 sem. hrs. of credit when topics vary. Authors such as Sidney, Spenser, Marlowe, Shakespeare; developments in romantic epic, lyric, comedy, tragedy, devotional literature; topics such as "Quest for Utopia," "Psychology of Love," "Theatre and Court."

# ENGL 4050 Studies in the Restoration and 18th Century (3)

May be taken for a max. of 6 sem. hrs. of credit when topics vary. Authors such as Dryden, Behn, Swift, Pope, Equiano, Fielding, Richardson, Austen; developments in satire, comedy of manners, the novel; topics such as "The Line of Wit," "Literature and Empire."

# ENGL 4055 Studies in the Novel and the Idea of Narrative (3)

May be taken for a max. of 6 sem. hrs. of credit when topics vary. Novels such as Tristram Shandy, Madame Bovary, The Trial, To the Lighthouse, Beloved; theorists such as Booth, Bakhtin, Kermode, Girard, Barthes, Kristeva, Said; topics such as time, structure, voicing, self-reflexivity.

### ENGL 4060 Studies in the Romantic Movement (3)

May be taken for a max. of 6 sem. hrs. of credit when topics vary. Authors such as Blake, Wollstonecraft, William and Dorothy Wordsworth, Coleridge, Byron, Percy and Mary Shelley, Keats; topics such as "Romanticism and the French Revolution," "The Poetic Imagination," "The Romantic Novel."

### ENGL 4062 Studies in the Victorian Age (3)

May be taken for a max. of 6 hrs. of credit when topics vary. Authors such as Dickens, the Brontës, Thackeray, Eliot, Tennyson, Browning, Arnold, Ruskin, Wilde; topics such as "The Bildungsroman," "London, Crime, and Victorian Literature," "The Victorian Heroine."

# ENGL 4070 Studies in American Literature to 1865 (3)

May be taken for a max. of 6 sem. hrs. of credit when topics vary. Authors such as Franklin, Poe, Emerson, Hawthorne, Douglass, Melville, Whitman, Dickinson; themes such as American identity, nature and culture; topics such as "The Puritan Imagination," "Rethinking the American Renaissance."

# ENGL 4071 Studies in American Literature since 1865 (3)

May be taken for a max. of 6 sem. hrs. of credit when topics vary. Authors such as Twain, James, Wharton, Eliot, Moore, Hughes, Cather, Ellison, Faulkner; developments in the novel, poetry, nonfiction prose; topics such as "The American Self," "Naturalism," "Postmodernism."

### ENGL 4080 Studies in Modernism (3)

May be taken for a max. of 6 sem. hrs. of credit when topics vary. Authors such as Pound, Eliot, Stein, Joyce, Woolf, and Faulkner; topics such as "The Avant-Garde Movements in the Arts," "Nationalism and Literature," "War Poetry," "The Expatriates."

#### ENGL 4086 Studies in the Short Story (3)

May be taken for a max. of 6 sem. hrs. of credit when topics vary. Authors such as Chekhov, Joyce, Hemingway, Cather, Wright, Garcia Marquez, Flannery O'Connor; theorists such as Poe, Frank O'Connor, Friedman, Pratt; problems such as short story sequences, beginnings and endings, compression, conflict.

# ENGL 4102 Capstone Seminar in Writing Poetry (3)

*Prereq.:* ENGL 4007, 92 total credit hrs. and 27 hrs. in English beyond ENGL 2000 or permission of instructor. Advanced seminar in which students consolidate their knowledge in writing poetry and obtain a perspective on the significance of that knowledge. Independent research project.

#### ENGL 4104 Capstone Seminar in Literature (3)

Prereq.: for English Majors with 92 total credit hrs. and 27 hrs. in English beyond ENGL 2000, including three hours from ENGL 3024 or ENGL 3084 or permission of instructor. Advanced seminar in which students consolidate their knowledge of English and obtain a perspective on the significance of that knowledge. Independent research project. Course topics will vary.

# ENGL 4105 Capstone Seminar in Writing Fiction (3)

Prereq.: ENGL 4005, 92 total credit hrs. and 27 hrs. in English beyond ENGL 2000, ENGL 3024 or ENGL 3084 or permission of instructor. Advanced seminar in which students consolidate their knowledge in writing fiction and obtain a perspective on the significance of that knowledge. Independent research project.

# ENGL 4109 Capstone Seminar in Screenwriting (3)

*Prereq.:* ENGL 4009, 92 total credit hrs. and 27 hrs. in English beyond ENGL 2000 or permission of instructor. Advanced seminar in which students consolidate their knowledge in screenwriting and obtain a perspective on the significance of that knowledge. Independent research project.

### ENGL 4120 Studies in Major Authors (3)

May be taken for a max. of 6 sem. hrs. of credit when topics vary. Detailed study of works by one or two authors from Spenser and Donne to Joyce and Morrison; attention to the author's life and times, predecessors and influence.

#### ENGL 4121 Studies in Literary History (3)

May be taken for a max. of 6 hrs. of credit when topics vary. Topics such as "Literature and the King's Peace," "The Development of the Pastoral," "From Romantic to Victorian: A Study of Influence," "Self and Society."

### ENGL 4122 Topics in Interdisciplinary Studies (3)

May be taken for a max. of 6 hrs. of credit when topics vary. Literature in cultural contexts and/or in relation to other academic disciplines; topics such as "Fictions of the Working Class," "Race in Literature and Culture," "Modernism in Fiction and Painting."

# ENGL 4133 Studies in Nonfiction Film and Video (3)

May be taken for a max. of 6 sem. hrs. of credit when topics vary. Advanced study in nonfiction film and video; topics such as "Nonfiction Film Essays," "Documentary Auteurs," "Women and Nonfiction Film," "Experimental Nonfiction Film." Production work when chosen by students.

#### ENGL 4137 Studies in Chaucer (3)

Attention to The Canterbury Tales, their literary and cultural significance; topics such as "Chaucer, Boccaccio and Framed Tales," "The olde daunce': Chaucer on Love, Sex and Marriage."

#### ENGL 4147 Studies in Milton (3)

Attention to Paradise Lost, Paradise Regained and Samson Agonistes; their literary and cultural significance; topics such as "Paradise Lost and the Christianization of the Epic," "Milton and Women," "Milton and Revolution."

### ENGL 4148 Studies in Shakespeare (3)

May be taken for a max. of 6 hrs. of credit when topics vary. Attention to poetry and plays, literary and cultural significance; topics such as "The Comedies and Histories," "The Tragedies," "Shakespeare and Film," "Shakespeare and Gender."

#### ENGL 4173 Studies in Southern Literature (3)

May be taken for a max. of 6 hrs. of credit when topics vary. Authors such as Chopin, Faulkner, Wright, Welty, Tennessee Williams; topics such as "Survey of Southern Literature," "Civil Rights Literature," "Historical Fiction," "Southern Women Writers."

### ENGL 4203 Writing and Research in the Teaching of English (3)

*Prereq.: ENGL 3203 and EDCI 3001.* Current methods of teaching research and writing in middle school and high school English Language Arts classrooms.

# ENGL 4204 Capstone Seminar in English Education (3)

Prereq.: EDCI 4003 and ENGL 4203. Concurrent enrollment in EDCI 4004 and EDCI 4005. For English majors in the Secondary Education Concentration. Independent research project. Course topics will vary. Usually offered in spring semester only. Advanced seminar in which students consolidate their knowledge in English and obtain a perspective on the significance of the knowledge.

# ENGL 4220 Drama of Africa and African Diaspora (3)

See THTR 4220.

#### ENGL 4222 Studies in Popular Fictions (3)

May be taken for a max. of 6 hrs. of credit when topics vary. Topics such as "Louisiana Popular Fictions," "Images of Women and Minorities in Popular Texts," "Popular Culture and Folklore," "The Literature of Horror."

#### ENGL 4231 Studies in Literature and Film (3)

May be taken for a max. of 6 hrs. of credit when topics vary. Comparative study of literature and film as art forms; literary bases of film; topics such as "Film Authors," "Film and Ideology," "Adaptations of Literary Classics," "Film Genres," "Film and Gender."

#### ENGL 4234 Studies in Literature and Politics (3)

Also offered as POLI 4234. May be taken for a max. of 6 hrs. of credit when topics vary. Literary representations of politics; historical role of literature in politics; topics such as "Literature and Politics of the Modern American South," "Revolution and the Avante-Garde."

#### ENGL 4236 Studies in Literature and Religion (3)

Also offered as REL 4236. May be taken for a max. of 6 hrs. of credit when topics vary. Authors such as Sophocles, Dante, Shakespeare, Donne, Hawthorne, Eliot, O'Conner, Morrison; topics such as "Major Religious Novelists," "Literature of Illness and Death," "Moral Universes of Greek and Christian Tragedy," "Creation Stories."

### ENGL 4300 Studies in Rhetorical Theory (3)

May be taken for a max. of 6 hrs. of credit when topics vary. Topics such as "Rhetoric of/in Literary Studies," "Rhetoric of Political Discourse."

### ENGL 4301 Studies in Composition Theory (3)

May be taken for a max. of 6 hrs. of credit when topics vary. Modern composition theory as it relates to the teaching of writing; topics such as "Social Theories of Composition."

#### ENGL 4302 Studies in Literacy (3)

May be taken for a max. of 6 hrs. of credit when topics *vary.* Varied perspectives on literacy, especially written literacy; issues raised by its complex and problematic nature.

#### ENGL 4304 Capstone Seminar in Rhetoric, Writing, and Culture (3)

Prereq.: for English Majors with 92 total credit hrs. and 27 hrs. in English beyond ENGL 2000, including three hours from ENGL 3024 or ENGL 3084 or ENGL 3384 or permission of instructor. Advanced seminar in which students consolidate their knowledge in English and obtain a perspective on the significance of that knowledge. Independent research project. Course topics will vary.

#### ENGL 4310 Studies in Language (3)

Also offered as LING 4310. May be taken for a max. of 6 hrs. of credit when topics vary. A writing intensive course. Devoted to special topics, such as "African-American English," "English-based Pidgins and Creoles," "Current Trends in Linguistic Theory," "Issues in Applied Linguistics and Language Learning."

#### ENGL 4322 Studies in African Literature (3) See AAAS 4322.

#### ENGL 4323 Studies in Caribbean Literature (3) See AAAS 4323.

#### ENGL 4475 American Folklore (3)

Also offered as ANTH 4475. Folklore of the U.S., including regional, racial, ethnic and occupational groups; relation of folklore to other aspects of American vernacular culture and to American literature.

#### ENGL 4493 Women and Folklore (3)

Examination of folk materials, including oral genres, music, art and artifacts and rituals; focus on how and why information about women in folklore is communicated.

#### ENGL 4593 Studies in Women and Literature (3)

May be taken for a max. of 6 hrs. of credit when topics varv. Authors such as Behn, Woolf, Chopin, Atwood, Cliff; topics such as "Reading and Writing About Women's Lives," "The Female Gothic," "Women and Ethnicity," "Early Modern Women Writers."

#### ENGL 4674 Studies in African-American Literature (3)

May be taken for a max. of 6 hrs. of credit when topics vary. Authors such as Douglass, Hurston, Wright, Morrison; topics such as "Slave Narratives," "The Harlem Renaissance," "The Black Arts Movement," "The Black Diaspora," "African Survivals."

#### ENGL 4680 Studies in Post-colonial Literature & Culture (3)

May be taken for a max. of 6 sem. hrs. of credit when topics vary. Topics may include "Imagining India," "Black British Cultures," "Islam and Literature," "Politics and Postcolonial Literature," "Atlantic Studies," etc.

#### ENGL 4710 Introduction to Linguistics (3)

Also offered as LING 4710. Introduction to the major fields of linguistic study: phonology, morphology, syntax, semantics.

#### ENGL 4711 History of the English Language (3)

Also offered as LING 4711. Survey of the development of the English language from its Germanic roots to the present day.

#### ENGL 4712 Roots of English (3)

Also offered as LING 4712. The use of language to reconstruct the ancient Indo-European physical and cultural world: myth, religion, ritual, law and medicine.

#### ENGL 4713 Syntax (3)

Also offered as LING 4713. Basic principles of syntactic structure; topics include constituency, subordinate clauses, coordinate structures, question formation, topicalization and the passive.

#### ENGL 4714 Phonology (3)

Also offered as LING 4714. Introduction to phonology, concentrating on the English language; phonetic and phonemic inventories; feature-analysis and rules; examination of linear, nonlinear and metrical paradigm.

#### ENGL 4715 Semantics (3)

Also offered as LING 4715. Approaches to the study of meaning: theories of the lexicon, word-formation and meaning; the interaction between sentence structure and signification; pragmatics.

#### ENGL 4720 Second Language Acquisition (3)

Also offered as LING 4720. Key issues in second language acquisition (SLA) including age, native language, and environment on language learning.

#### ENGL 7001 Literary Nonfiction Workshop (3)

Prereq.: admission to the MFA program or consent of instructor. May be taken for a max. of 6 sem. hrs. of credit. Creative writing of nonfiction essays.

### ENGL 7006 Fiction Writing (3-6)

Prereq.: admission to the MFA program or permission of instructor. May be taken for a max. of 12 hrs. of credit. Intensive composition and critical evaluation of fiction; fictional techniques and forms.

#### ENGL 7007 Poetry Writing (3-6)

*Prereq.: admission to the MFA program or permission of instructor. May be taken for a max. of 12 hrs. of credit.* Composition and critical evaluation of poetry; poetic forms and problems of poetry writing.

#### ENGL 7008 Drama Writing (3-6)

Also offered as THTR 7008. May be taken for a max. of 12 sem. hrs. of credit. Composition and critical evaluation of drama; techniques of dramatic composition and dialogue.

### ENGL 7009 Advanced Screenwriting Workshop (3-6)

*Prereq.: admission to the MFA program or permission of instructor. May be taken for a max. of 12 hrs. of credit.* Composition and critical evaluation of screen and teleplays; screenwriting composition and dialogue.

#### ENGL 7020 Proseminar in Graduate Study (3)

Introduction to the profession of English through an examination of the central theoretical issues and institutional questions that currently organize the field and instruction in basic research practices.

#### ENGL 7030 Medieval Literature (3)

Survey of major Medieval works (exclusive of Chaucer) in lyrical, poetic narrative, dramatic and prose genres.

#### ENGL 7040 Renaissance Literature (3)

Survey of representative works of English literature in poetry and prose in the 16th and 17th centuries.

### ENGL 7050 Restoration and 18th Century Literature (3)

Comprehensive survey of major authors, contexts, and genres from Dryden to Blake.

#### ENGL 7072 American Literature (3)

May be taken for a max. of 9 sem. hrs. of credit when topics vary. Survey of American poetry and prose in the 17th and 18th centuries, the 19th century, or the 20th and 21st centuries.

#### ENGL 7106 Forms of Prose Fiction (3)

*Prereq.: admission to MFA program. May be taken for a max. of 6 sem. hrs. credit when topics vary.* Fictional techniques in conventional and experimental short stories, novellas and novels; elements of plot, characterization, theme, setting and tone; formal analysis of literary texts related o specific problems of writing.

### ENGL 7107 Prosody and Poetic Forms (3)

*Prereq.: admission to MFA program. May be taken for a max. of 6 sem. hrs. credit when topics vary.* Representative forms of poetry from early sagas to contemporary free verse; relationship to principles of versification; some concurrent practice in writing poetry in specific forms.

### ENGL 7109 Forms of Film Writing (3)

*Prereq.: permission of instructor.* Examination of screenplays and teleplays; techniques of exposition, characterization and dramatization.

#### ENGL 7137 Chaucer (3)

May be taken for a max. of 6 hrs. of credit when topics vary. Poetry and prose in Middle English.

#### ENGL 7147 Milton (3)

Readings and critical analysis of the poetry and prose of John Milton.

### ENGL 7170 Ethnic Literatures of the United States (3)

Survey of the literature of America's diverse ethnic cultures; theories of ethnicity, cultural studies and critical race studies.

### ENGL 7173 Literature of the American South (3)

Southern writing from colonial times to the present.

### ENGL 7174 Survey of African-American Literature I (3)

Writings of African Americans from the colonial/slavery experience to 1915.

#### ENGL 7182 Postcolonial Literatures (3)

Survey of Anglophone literatures from formerly colonized nations.

### ENGL 7221 Topics in Critical Theory and Cultural Studies (3)

May be taken for a max. of 9 sem. hrs. of credit when topics vary. Specialized explorations in critical theory and cultural studies; topics include "Derrida and American Deconstruction," "Critical Theory and Science Fiction," "Marxism and the Western," "Reader-Response Theory and Popular Romance," "Postmodernism."

#### ENGL 7222 Topics in Literacy Studies (3)

May be taken for a max. of 9 sem. hrs. of credit when topics vary. Intensive study of a topic in history or theories of literacy; topics include "Technology and Literacy," "Gender and Literacy," "Orality and Literacy," "Theory and Politics of Literacy," "Working-Class Literacy."

#### ENGL 7321 Topics in Gender Theory (3)

May be taken for a max. of 9 sem. hrs. of credit when topics vary. Analysis of an aspect of gender theory in relation to literary or cultural study; topics such as "Gender, Narrative, and Property," "Film and Gender," "Psychoanalysis and Sexuality."

#### ENGL 7423 Topics in Folklore (3)

May be taken for a max. of 9 sem. hrs. of credit when topics vary. Examination of particular folk genres, issues or methods in the study of folklore.

### ENGL 7521 Topics in the History of Rhetoric and Poetics (3)

May be taken for a max. of 9 sem. hrs. of credit when topics vary. Topics may cover any aspect of the historical relationship between formal rhetoric, poetic theory and English literature from the Middle Ages to the present.

### ENGL 7541 Topics in Rhetoric, Media and Representation (3)

*May be taken for a max. of 9 sem. hrs. of credit when topics vary.* Analysis of literature, film and media as cultural representations of societal norms, beliefs and needs.

### ENGL 7542 Topics in Rhetorics of Class and Gender (3)

May be taken for a max. of 9 sem. hrs. of credit when topics vary. Analysis of writing and language in light of their contextual and material influences and the methods for their study; emphasis on class and gender.

# ENGL 7621 Research Methods in Composition, Literacy and Rhetorical Studies (3)

Survey and theoretical discussion of research methodologies such as discourse analysis, rhetorical analysis, interviews, talk-aloud protocols and ethnography in the fields of composition studies, literacy studies or rhetorical studies.

#### ENGL 7622 Topics in Composition Studies (3)

May be taken for a max. of 9 sem. hrs. of credit when topics vary. Historical survey of the theoretical, research and pedagogical issues in the field of composition studies or special topics such as "Genre Theory," "Assessment," "Technology and Composition."

# ENGL 7623 Topics in Professional Writing and Technical Communication (3)

May be taken for a max. of 9 sem. hrs. of credit when topics vary. History or theories of professional writing or technical communication; topics include "Writing in the Profession," "Workplace Literacy," "Computers and Writing," or "Technical Writing Methodology."

#### ENGL 7711 Forms of Early English (3)

May be taken for a max. of 9 sem. hrs. of credit when topics vary. Languages and linguistic structures of early forms of English: Old English, Middle English, and Early Modern English; period focus will vary.

### **ENGL 7712 Topics in Historical Linguistics (3)**

Also offered as LING 7712. May be taken for a max. of 9 sem. hrs. of credit when topics vary. An exploration of a topic or topics in the history of English, of the Germanic language or of the Indo-European language family.

#### ENGL 7713 Topics in Syntax and Semantics (3)

Also offered as LING 7713. May be taken for a max. of 9 sem. hrs. of credit when topics vary. An exploration of a topic or topics in the structure and/or the interpretation of Modern English and related languages.

### ENGL 7714 Topics in Sociolinguistics (3)

Also offered as LING 7714. May be taken for a max. of 9 sem. hrs. of credit when topics vary. An exploration of a topic or topics in the sociolinguistics of English and related languages, including English-based pidgins and creoles.

#### ENGL 7783 Topics in Film and Video Studies (3)

May be taken for a max. of 9 sem. hrs. of credit when topics vary. Intensive examination of a topic in the history or theory of film, television or other video productions, or in the relation of such productions to literature.

#### ENGL 7910 Language (3)

May be taken for a max. of 6 sem. hrs. of credit when topics vary.

#### ENGL 7915 Teaching College Composition (3)

Prereq.: students must be graduate teaching assistants in the English Department. Course is designed for graduate students teaching in the First-Year Writing program. Theoretical and pedagogical issues in the teaching of college writing.

#### ENGL 7920 English Seminar (3)

May be taken twice for credit when topics vary.

#### ENGL 7921 Topics in Genres (3)

May be taken for a max. of 9 sem. hrs. of credit when topics vary. Intensive study of works in a literary genre from different national and cultural traditions and from different historical periods; topics include "Medieval and Renaissance Drama," "The Long Poem in English," "The Origins of the Novel," "The Short Story."

#### ENGL 7922 Authors Seminar (3)

May be taken for a max. of 9 sem. hrs. of credit when topics vary. Detailed study of one or two authors in American, British or other Anglophone literatures; attention to the life and time, predecessors and influence.

#### ENGL 7942 Topics in Renaissance Literature (3)

May be taken for a max. of 9 sem. hrs. of credit when topics vary.

#### ENGL 7943 Studies in Shakespeare (3)

May be taken for a max. of 6 sem. hrs. of credit when topics vary.

### ENGL 7951 Topics in Restoration and 18th Century Literature (3)

May be taken for a max. of 9 sem. hrs. of credit when topics vary.

#### ENGL 7960 Studies in the Romantic Period (3)

May be taken for a max. of 9 sem. hrs. of credit when topics vary. Topics such as "Romanticism and Place," "Literature and Revolution," "Romanticism and Linguistic Theory."

### ENGL 7962 Studies in the Victorian Period (3)

May be taken for a max. of 9 sem. hrs. of credit when topics vary. Topics such as "Victorian Literature and Race," "Victorian Literature and Economics," "Victorian Literature and the City."

### ENGL 7963 Topics in 19th Century British Literature (3)

May be taken for a max. of 9 sem. hrs. of credit when topics vary. Topics such as "19th Century British Women Poets," "Youth and Identity in 19th Century Literature," "British Working-Class Writing."

#### ENGL 7970 Topics in American Genres (3)

*May be taken for a max. of 9 sem. hrs. of credit when topics vary.* Focused study of genres in the American context; genres may include the novel, the short story, drama, poetry, the captivity narrative or the essay.

#### ENGL 7971 Topics in Southern Studies (3)

May be taken for a max. of 9 sem. hrs. of credit when topics vary. Interdisciplinary approaches to southern literature and culture; topics such as "Southern Sexualities," "The Color Line in the American South," "Media Made Dixie."

#### ENGL 7972 Topics in Southern Literature (3)

May be taken for a max. of 9 sem. hrs. of credit when topics vary.

#### ENGL 7974 Topics in American Literature (3)

May be taken for a max. of 9 sem. hrs. of credit when topics vary.

### ENGL 7975 Topics in African-American Literature (3)

May be taken for a max. of 9 sem. hrs. of credit when topics vary.

# ENGL 7981 Topics in Modern and Contemporary Literature (3)

May be taken for a max. of 9 sem. hrs. of credit when topics vary. Intensive study of works in modern and contemporary literature; topics include "Modern Irish Literature," "Modernism," "Postmodern Literature," "Contemporary Australian Literature."

# ENGL 7983 Topics in Ethnic and Postcolonial Literatures (3)

May be taken for a max. of 9 sem. hrs. of credit when topics vary. Detailed study of different aspects of American ethnic literatures such as Asian American, Native American, Latino/Chicano and postcolonial literatures such as Indian, African, West Indian, Transnational.

### ENGL 8000 Thesis Research (1-12 per sem.)

"S"/"U" grading.

#### ENGL 8900 Independent Study (1-3)

May be taken for a max. of 3 sem. hrs. in an MA program, 6 sem. hrs. in an MFA program and 9 sem. hrs. in a PhD program. Directed individual readings guided by the graduate faculty. ENGL 9000 Dissertation Research (1-12 per sem.) "S"/"U"grading.

### Entomology

#### ENTM 1001 Insects and Society (3)

Introduction to insect effects on agriculture, human health, and the environment.

#### ENTM 2001 Insects in the Environment (3)

*Prereq.:* BIOL 1201, BIOL 1208; and either BIOL 1001, BIOL 1002 or equivalent. 2 hrs. lecture; 2 hrs. lab. Insect recognition, classification and life cycles; factors affecting insect diversity and abundance; interactions between insects and the natural environment.

### ENTM 3000 Pest Management Internship (3)

Offered in Su See PLHL 3000.

**ENTM 3002 Pest Management Seminar (1)** See PLHL 3002.

#### ENTM 4002 Insect Biology (3)

Also offered as BIOL 4002. Prereq.: BIOL 2153 or consent of instructor. No entomology training necessary. Biological, biochemical and ecological principles as they relate to the success of insects.

#### ENTM 4005 Insect Taxonomy (4)

*Prereq.: ENTM 2001. A collection is required. 2 hrs. lecture; 4 hrs. lab.* Identification, nomenclature, phylogenetic relationships and life histories of insects at the family level.

### ENTM 4006 Fundamentals of Applied Entomology (3)

*Prereq.: ENTM 2001 or consent of instructor. 2 hrs. lecture; 2 hrs. lab.* Principles and methodology of managing insect pests; emphasis on field crops insect pest management; interdisciplinary perspective.

#### ENTM 4007 Forensic Entomology (3)

*No entomology training necessary. 2hrs. lecture; 2 hrs. lab.* Determining the succession and species composition of necrophilous insects and other arthropods on carcasses; estimate time of death using insects; learning investigative procedures used by police and wildlife officers in human and animal deaths; review of case studies from crime scene to courtroom.

### ENTM 4012 Fundamentals of Horticultural Entomology (3)

*Prereq.: ENTM 2001. 2 hrs. lecture; 2 hrs. lab.* Principles of insect control; recognition of major pest species of insects and mites and their injury to horticultural plants; economic and aesthetic injury thresholds; methods of control, including identification and utilization of beneficial species.

### ENTM 4018 Forest Insects and Diseases (4)

Also offered as PLHL 4018. Prereq.: BIOL 1201, BIOL 1208. One day-long field trip. 3 hrs. lecture; 2 hrs. lab. Identification, ecology, epidemiology and control of forest insects and diseases.

#### ENTM 4020 Invasive Species Ecology (3)

*Prereq.: ENTM 2001 or BIOL 1202 or equivalent.* Stages involved in the invasion of an organism; examples covered include insects, weeds, reptiles, fish, and mammals.

### ENTM 4040 Insect Ecology (3)

*Prereq.: BIOL 1201 and BIOL 1208 or equivalent or consent of instructor. Two Saturday field trips.* Ecological principles pertaining to insect individuals, populations, communities and their role in ecosystems; emphasis on life history strategies and behavior.

### ENTM 4099 Undergraduate Entomological Research (1-3)

*Prereq.: ENTM 2001 or ENTM 4018 or equivalent. May be taken for a max. of 4 hrs. of credit. Not for graduate credit.* Supervised entomological research in a laboratory or field setting; data collection and interpretation of results.

#### ENTM 4100 Insect Behavior (3)

*Prereq.: ENTM 2001 or consent of instructor.* Current and classical concepts in behavioral theory; communication systems; stimuli orientation, social interaction; aspects of insect control using behavior modification.

# ENTM 4130 Introduction to Aquatic Entomology (4)

RNR 4130. Prereq.: BIOL 1202 and BIOL 1209. Occasional extended field trips. A collection is required. No entomology training is necessary. Students are responsible for paying for travel expenses associated with this course. 3 hrs. lecture, 3 hrs. lab. Provides a general understanding of global aquatic insect diversity and ecology with an emphasis on Louisiana and Gulf of Mexico Coastal Plains and lower Mississippi alluvial valley faunas. Provide students with practical skills of aquatic insect collection, curation, and identification.

#### ENTM 4199 Special Topics in Entomology (1-3)

Prereq.: consent of instructor. May be taken for a max. of 6 sem. hrs. of credit when topics vary. Lab/field trip may be required. Subjects not covered in other entomology courses.

#### ENTM 7001 General Entomology (4)

*No entomology training necessary. 3 hrs. lecture; 3 hrs. lab.* Provides a framework of information about the evolution of insects and related arthropods, anatomy, functional morphology and physiology and an introduction to insect diversity at the ordinal level.

### ENTM 7002 Plant Resistance to Arthropods (4)

*Prereq.: consent of instructor. 3 hrs. lecture; 3 hrs. lab.* Detailed examination of the mechanistic basis of plantinsect interactions, with special reference to host-plant resistance in agricultural systems; integrates relevant concepts from diverse fields including insect physiology, plant physiology, plant biochemistry and ecology; evaluation of the current theoretical basis for research in plant-insect interactions; laboratory demonstrations and exercises emphasize the techniques used in host-plant resistance research.

### ENTM 7005 Classification of Immature Forms of Insects (3)

Prereq.: ENTM 4005 or equivalent. 2 hrs. lecture; 2 hrs. lab.

# ENTM 7006 Advanced Insect Pest Management (3)

Prereq.: ENTM 4006 and one 4000 or higher level statistical course (EXST 4050, EXST 7003, EXST 7004, EXST 7005, EXST 7013, EXST 7014, EXST 7015, and EXST 7031) or consent of the coordinator. Ecological and economic basis of pest management; advances in major pest management tactics; insect sampling; system analysis, biotechnology and geographical information system in pest management.

#### ENTM 7007 Seminar in Entomology (1)

May be repeated for credit. I sem. hr. of credit required for each graduate degree in entomology.

#### ENTM 7008 Special Topics in Entomology (1-3)

Prereq.: consent of department head. May be taken for a max. of 6 sem. hrs. credit when topics vary for 6 sem. hrs. credit for M.S. and 9 sem. hrs. credit for PhD. Lectures and/or labs on advanced topics in entomology not covered in other entomology courses.

#### ENTM 7010 Teaching Practicum (1-3)

Prereq.: students whose native language is not English must pass the Michigan Test of English proficiency or equivalent, and receive prior approval of student's graduate committee and supervising faculty. Pass/fail grading based on a written evaluation by the supervisor and a written report by the student. May be taken for a max. of 6 sem. hrs. of credit. Open only to entomology PhD students. Teaching practicum and learning experience under the supervision of a graduate faculty member. Support one faculty member's teaching through grading assignments and exams, delivering material and preparing and conducting laboratories, as needed and directed by the supervising faculty. Student will be exposed to different learning styles and various teaching approaches. Course credit will range from 1-3 hrs. depending on anticipated involvement.

### **ENTM 7016 Biological Control (3)**

Prereq.: ENTM 2001 or permission of instructor. 2 hrs. lecture; 2 hrs. lab. Theory and practice of biological control of insects, mites, and weeds in natural and managed ecosystems.

#### ENTM 7017 Introduction to Insecticide Toxicology (3)

Prereq.: organic chemistry or equivalent. 2 hrs. lecture; 3 hrs. lab. Principles of toxicology as they relate to insecticides; bioassays, risk assessment, mode of action, pharmacokinetics, insecticide resistance and selectivity.

#### ENTM 7020 Insect Physiology (4)

3 hr. lecture, 3 hr. lab. Physiology and biochemistry of insect organ systems. Topics include circulation, digestion, respiration, excretion, hormonal regulation, pheromones, intermediary metabolism, and nerve and muscle physiology. Laboratories provide exposure to instrumentation and techniques used in physiological research.

#### ENTM 7030 Aquatic Entomology (4)

Also offered as RNR 7030. 3 hrs lecture; 3 hrs lab. Provides a general understanding of aquatic insect diversity and ecology, with emphasis on Gulf of Mexico Coastal Plain and lower Mississippi alluvial valley faunas. Training includes methodologies for aquatic insect field sampling, curation, and identification and application of analytical techniques to aquatic insect data.

#### ENTM 7080 Population Ecology (3) See BIOL 7080.

#### ENTM 7600 Entomology Extension Practicum (1-2)

Prereq.: consent of the course coordinator. This course may be taken for a max. of 2 hrs. of credit. Students will gain knowledge, training and experience in extension entomology. Emphasis on land-grant institution service, technology transfer and initiating and evaluating an entomology extension project.

#### ENTM 7946 Seminar: Current Topics in Molecular Evolution (1) See BIOL 7946.

#### ENTM 7979 Tropical Biology: An Ecological Approach (1-8) See BIOL 7979.

ENTM 8000 Thesis Research (1-12 per sem.) "S"/"U" grading.

ENTM 8900 Research Problems (1-4 per sem.) Prereq.: consent of instructor. May be taken for a max. of 6 sem. hrs. credit.

ENTM 9000 Dissertation Research (1-12 per sem.) "S"/"U" grading.

### Entrepreneurship

#### ENTR 2000 Innovation and Creativity (3)

Focuses on the role of creativity and innovation in product, service or idea generation that may eventually lead to business formation and commercialization; barriers to creativity and innovation; alternative problem-solving approaches.

#### ENTR 3012 Intrapreneurship (3)

Examination of creativity and innovation within companies and how intrapreneurship provides a framework for growth and change for companies competing in the global marketplace.

#### ENTR 3111 Entrepreneurship (3)

Principles of entrepreneurship; Understand how to develop successful ideas and how to move those ideas toward the development of a new venture or business.

#### ENTR 4010 Special Topics in Entrepreneurship (3)

Prereq.: Open only to Entrepreneurship majors admitted to the College of Business or permission of department. May be taken for up to 6 credit hrs. when topics vary.

#### ENTR 4020 Internship in Entrepreneurship (3)

Prereq.: ENTR 3111 and permission of instructor. Pass-fail grading. May be repeated for a max. of 6 sem. hrs. Gaining first-hand knowledge of the business start-up process: practical hands-on experience in business-plan formation.

#### ENTR 4030 Independent Study in Entrepreneurship (3)

Prereq.: ENTR 3111 and permission of instructor. May be repeated for a max. of 6 sem. hrs. credit when topics vary. Detailed study of a specific aspect of entrepreneurship.

### ENTR 4040 Business Planning (3)

Prereq.: Open only to Entrepreneurship majors admitted to the College of Business or permission of department. Components, examples, and the creation of comprehensive business plans for beginning small businesses; integration of clear theoretical frameworks with action-oriented examples and exercises.

#### ENTR 4100 Consulting Field Project (3)

Prereq.: ENTR 3111 and permission of instructor. Strategic focused field based project learning experiences and opportunities in public and private organizations. Teambased approach to offering consulting advice to organizations with the goal of improving their performance. Emphasis on experiential approaches that provide a participative type of learning about the crucial issues faced by organizations.

#### ENTR 4113 Small Business Management (3)

[LCCN: CMGM 3413, Small Business Management (Upper Level)] A multidisciplinary approach to small business; business start-ups, accounting, finance, marketing, management, promotion, layout, retail management, location analysis and international small business.

### ENTR 4114 Franchising Management (3)

Understanding the franchising process; becoming a franchiser or franchisee; franchiser start-up, venture capital, finance, legal compliance, disclosure documents, franchise agreements, franchisee start-ups, franchiser-franchisee relationships, anti-trust laws and international franchising.

### ENTR 4120 Social Entrepreneurship (3)

*Prereq.: ENTR 3111 or permission of instructor.* The course provides a broad theoretical perspective and practical framework for understanding social entrepreneurs and the social ventures they create ranging from local social organizations to large international social ventures leading global change. Introduction to the possibilities of social entrepreneurship and an introduction to the entire social venture creation process and life cycle.

### ENTR 4203 Entrepreneurship in Early Stage Technology Based Startups (3)

Decision making, intellectual property, business plans, and customer discovery in early stage technology based startups.

#### ENTR 4701 Technological Entrepreneurship (3)

This course requires programming knowledge and a solid understanding of web development. Fundamentals of technology entrepreneurship; creating a technology idea, developing a minimal viable product (MVP), marketing, and managing growth.

### ENTR 4702 Managing Technology Transfer (3)

Models of technological transfer; mechanisms and barriers to technological transfer; technological transfer and industrial innovation; domestic and international aspects of technology transfer.

#### **ENTR 7111 Entrepreneurship Management (3)**

Investigation, analysis and development of entrepreneurial feasibility studies and business plans.

### **Environmental Sciences**

#### ENVS 1000 Environment and Technology: Perspective on Environmental Problems (3)

Also offered as EMS 1011. Environmental quality problems involving water, air and land, and society's response to such problems; analysis of the interrelationships and nature of ecological stresses.

### ENVS 1010 Introduction to Coastal Environmental Science (1) See OCS 1010.

### ENVS 1126 Introduction to Environmental Sciences (3)

[LCCN: CEVS 1103, Environmental Science] This is a General Education course. An honors course, ENVS 1127, is also available. Credit will not be given for both this course and ENVS 1127. Essential principles of environmental sciences; comprehensive and fundamental understanding of sound science, stewardship and sustainability in environmental sciences; interactions and relations between humans and earth; an up-to-date look at today's global, national and regional environmental issues.

#### ENVS 1127 HONORS: Introduction to Environmental Sciences (3)

This is a General Education course. *Similar to ENVS 1126* with special honors emphasis for qualified students. Credit will not be given for both this course and ENVS 1126.

### ENVS 2021 Environmental Thought (3) *See PHIL 2021.*

### ENVS 2126 Environmental and Anthropogenic Impacts of Microbes (3)

This is a General Education course. *Prereq.: ENVS 1126 or ENVS 1127, or equivalent.* Application of basic principles of environmental science to the fundamental understanding of the relationship of microbes with the environment and the humans with emphasis on the impacts and importance of microbial communities; introduction to cutting edge research through peer-reviewed literature; critique, formulation, and testing of hypotheses.

#### ENVS 3102 Mathematical Methods in Science (3)

*Prereq.: MATH 1550, MATH 1552 and EXST 2201 or equivalent.* Introduction to numerical methods, data analysis, error propagation, box models, linear and nonlinear least squares, perturbation theory, numerical integration.

#### ENVS 3999 Undergraduate Research (1-6)

*Prereq.: permission of department. May be taken for a max. of 6 hrs. of credit.* Individual study of a specific environmental problem or individual laboratory research.

#### ENVS 4004 Environmental Campaigns (3)

Application of social marketing and strategic communication campaign planning to address environmental issues.

### ENVS 4007 Cancer: A Family of Environmental Diseases (3)

*Prereq.: ENVS 4477; BIOL 4087 or BIOL 4093, or consent of instructor.* Introduction and characterization of the basic components of cancer including causes and molecular disease processes, environmental and genetic etiological factors, biomarkers, and therapeutic approaches.

### ENVS 4010 Applied Ecology (3)

Also offered as EMS 4010. Prereq.: minimum of 10 sem. hrs. of biological and/or physical science. Field service fee. 2 hr lecture, 3 hr. lab. The biosphere, air, land and aquatic environments; development of alternative techniques for correcting environmental pollution; environmental risk assessment analysis and management.

#### ENVS 4015 Physical Climatology (3)

See GEOG 4015.

#### ENVS 4035 Aquatic Pollution (3)

*Prereq.:* ENVS 1126 or ENVS 1127 or OCS 1005 or OCS 1006; or OCS 2007 and OCS 2008 or equivalent. Credit will not be given for this course and ENVS 4036. Interdisciplinary study of the interaction between man and the aquatic environment and human impacts on marine and freshwater biological systems; biological, ecological, social, legal and managerial aspects of water pollution are examined through a series of case studies.

#### ENVS 4036 HONORS: Aquatic Pollution (3)

Same as ENVS 4035 with special honors emphasis. Prereq.: ENVS 1126 or ENVS 1127 or OCS 1005 or OCS 1006; or OCS 2007 and OCS 2008 or equivalent. Credit will not be given for both this course and ENVS 4035.

#### ENVS 4045 Air Pollution and Society (3)

Foundations of the science of air pollution. Fundamentals of sources, measurements, standards and societal impacts of air pollution.

#### **ENVS 4101 Environmental Chemistry (3)**

*Prereq.: CHEM 2001 and CHEM 2261 or CHEM 2461 or CHEM 2060.* Credit will not be given for this course and CHEM 4150. Chemical principles applied to the study of the distribution, reactivity and toxicity of chemical species in the environment.

### ENVS 4113 Multi-Media Chemical Behavior for Risk Assessment (3)

*Prereq.: CHEM 1202, BIOL 1202, and MATH 1552, or consent of instructor.* Characterization of the behavior and fate of anthropogenic chemicals in coastal and marine ecosystems; develop an understanding of model conceptualizing for the biological, chemical and physical processes and mathematical formulation of these processes; assess risk of human and environmental biota to exposure to these hazardous substances.

### ENVS 4145 Remote Sensing Fundamentals for Environmental Scientists (3)

Basic principles and concepts in remote sensing and its applications to environmental sciences. Emphasis is placed on remote sensing instrumentation and the acquisition of remote sensing data.

# ENVS 4149 Design of Environmental Management Systems (3)

Environmental systems planning at local, national and international levels; identification of system requirements and available resources; definition of constraints, establishment of evaluation criteria; evaluation of alternative concepts and plans for subsystems; implementation using qualitative tradeoffs, mathematical models and computer simulations.

### ENVS 4261 Energy and the Environment (3)

Methods of stationary power generation; pollution related to fuel production, transportation and use; energy use and pollution problems related to transportation; energy resources, regulatory aspects and control technology related to stationary and moving sources of air pollution.

#### ENVS 4262 Environmental Hazards Analysis (3)

Systematic framework for examining the nature and consequences of natural and man-made hazards; strategies that may be taken to plan, respond, recover, prevent or mitigate hazards.

### ENVS 4264 Regulation of Environmental Hazards (3)

Federal, state and local regulation for mitigating the occurrence and effects of hazardous events, including the National Flood Insurance Act, Emergency Planning and Community Right to Know Act and government planning and zoning authority.

### ENVS 4266 Ocean Policy (3)

National and state ocean policy; Law of the Sea; regulation of the high seas; marine pollution, marine resources, and marine scientific research; other related topics.

### ENVS 4268 Environmental and Natural Resources Policy (3)

*This course is cross-listed with OCS 4268 and RNR 4268.* Environmental and natural resources policy across scales. The course emphasizes environmental policy-making through land use law at the local level, federal regulations of natural resources at the national level, and environmental treaties at the international level.

#### ENVS 4477 Environmental Toxicology: Introduction and Applications (3)

*Prereq.:* 6 hrs. of chemistry, 6 hrs. of life sciences and permission of instructor. Introduction to the basic principles of environmental toxicology; applications of these principles in industrial and other job related environments; regulatory perspectives; spills; anthropogenic pollution problems; human risk management; overview of classes of toxic agents, routes of exposure, target tissues (human mammalian) and toxicological testing.

### ENVS 4500 Health Effects of Environmental Pollutants (3)

*Prereq.: minimum of 6 sem. hrs. of chemistry and 6 sem. hrs. of either biology or zoology.* Effects of environmental pollutants on human health and quality of life.

### ENVS 4600 Global Environmental Change: Past, Present and Future (3)

See OCS 4600.

### ENVS 4900 Watershed Hydrology (3)

Also offered as RNR 4900. Prereq.: an introductory statistics course. 1 1/2 hrs. lecture; 1 1/2 hrs. lab. The principles of hydrology with emphasis on how natural systems are analyzed, modeled and used in management decisions; laboratory exercises involve hands-on experience with hydrologic data analysis, use of geographic information systems (GIS) and spatial modeling.

### ENVS 4950 Special Topics in Environmental Sciences (1-3)

*Prereq.: permission of the Department. May be taken for a maximum of 6 hours of credit. More than one section may be taken for credit concurrently when topics differ.* Special topics in environmental issues, problems, techniques and/or methods.

# ENVS 4999 Capstone in Coastal Environmental Science (1)

Also offered as OCS 4999. Prereq.: Senior standing as a declared Coastal Environmental Science Major and consent of instructor. May be taken for a maximum of 2 hours of credit, but only one hour will count towards the Coastal Environmental Science BS degree. Required of all students in the Coastal Environmental Science BS degree program. Written paper, poster and oral presentation of an analysis of a chosen environmental issue as selected by the student and the instructor.

### ENVS 7007 Qualitative Research Methods for Environmental Decision Making (3)

Application of qualitative methods in social science research to complex environmental issues; qualitative study design, data collection, analyses, and interpretation.

# ENVS 7010 Mathematical Modeling in Energy and Environmental Management (3)

*Prereq.: OCS 4410 or equivalent.* Advanced studies in the development of models of energy and environmental systems.

# ENVS 7040 Environmental Planning and Management (3)

*Prereq.: consent of instructor.* Environmental systems planning and management at local, state and federal government levels using problem identification; design of alternative solutions, evaluation of alternatives, political action decision processes and implementation and monitoring.

### ENVS 7041 Environmental Policy Analysis (3)

*Prereq.: consent of instructor.* Management-oriented approach to major phases of environmental policy; formulation, implementation, evaluation; theoretical bases and analytical techniques.

### **ENVS 7042 Environmental Conflict Resolution (3)**

Practical approaches and techniques commonly used to mediate environmental conflicts and facilitate participatory group decision making among stakeholders.

### ENVS 7043 Environmental Law and Regulation (3)

Also offered as RNR 7043. Introduction to basic principles of federal and state laws, regulations and court decisions involving pollution of the environment, including the National Environmental Policy Act, Clean Water Act, Clean Air Act, Resource Conservation and Recovery Act, Oil Pollution Act; current topical legal developments.

### ENVS 7044 Regulation of Toxic Substances (3)

Federal laws, regulations, judicial decisions and policies regarding the development, production, use and disposal of toxic substances, including the Toxic Substances Control Act, Federal Insecticide, Rodenticide, and Fungicide Act and the Food, Drug, and Cosmetic Act; toxic tort lawsuits will be reviewed.

#### ENVS 7046 International Environmental Law (3)

Also offered as RNR 7046. International and multilateral agreements and practices for controlling pollution and depletion of natural resources; relationship between international trade agreements and environmental quality; other international environmental issues.

# ENVS 7047 Environmental Economics and Policy (3)

Also offered as AGEC 7047. Prereq.: ECON 4720 or equivalent or consent of instructor. Economic concepts applied to the development of appropriate policies to achieve environmental protection goals; emphasis given to linkages between economics and the environment, the role of market failure and economic instruments that can be used to address environmental concerns.

#### ENVS 7048 Natural Resources Law and Policy (3)

Also offered as RNR 7048. Legal frameworks and resultant policy debates surrounding natural resources management; mechanisms by which law and policy facilitate resource management in the U.S. and worldwide; assessment of the science supporting such management.

# ENVS 7050 Spatial Modeling of Environmental Data (3)

*Prereq.: EXST 7003 or EXST 7004 or EXST 7005.* Development of an approach to analyze spatial and temporal processes for environmental data modeling.

### ENVS 7061 Watershed Biogeochemistry (3)

Also offered as RNR 7061. Biogeochemical processes in watersheds; sources and effects of water pollutants; water quality standards and criteria; total maximum daily loads; watershed approach and application of mathematical models to water quality management.

# ENVS 7110 Toxicology of Aquatic Environments (3)

*Cross listed with OCS 7110.* Aquatic pollution and toxicology of industrial materials related to environmental risk assessment in coastal areas; physical, chemical and biological factors affecting the fate of toxicants in marine and freshwater coastal areas.

#### ENVS 7112 Concepts in Marine Ecotoxicology (3)

Also offered as OCS 7112. Prereq.: ENVS 7110 or permission of instructor Marine pollution and toxicology of industrial and non-point sources materials related to ecological risk assessment in costal and marine areas; biological processes and wastes in the ocean; physicochemical processes and wastes in the ocean; laboratory and field techniques in epibiotic, endobiotic and fecal-sestonic habitats; benthic habitats and metals/chemical specification/geoavailability; fish as a biological model; microcosm theory and design for littoral and neritic habitats; approaches to ecological risk assessment in marine habitats.

### ENVS 7623 Toxicology I (3)

*Prereq.: ENVS 4477 or consent of instructor.* Fundamental principles of toxicology, dose response relationship, design and conduct of acute and chronic toxicity tests, basic analytical toxicology, biochemical markers, basic principles of hazard evaluation and risk assessment, industrial toxicology, principles of toxicology applied to the environment and ecosystems.

### ENVS 7626 Toxicology IV: Genetic Toxicology (3)

Also offered as BIOL 7626. Prereq.: ENVS 7623 or approval of instructor. Evaluation of induced heritable and/or phenotypic changes in the organism and individual cells (germline and somatic); emphasis on human and mammalian species; reproductive toxicology and teratogenesis; testing and screening agents for genotoxic activities; molecular genetic approaches to human and environmental biomonitoring.

#### ENVS 7700 Integrated Environmental Issues (3)

Multi- disciplinary analysis of a current environmental issue. Discussion of topics from the perspectives of natural science, economics, social science and political science. Integration and synthesis of information to develop a science-based approach to environmental decision-making.

### ENVS 7900 Special Problems in Environmental Sciences (1-4)

*May be taken for a max. of 4 hrs. credit.* Individual study of a specific environmental problem.

# ENVS 7950 Special Topics in Environmental Sciences (1-6)

Research and methodological review of current topics.

### ENVS 7995 Environmental Seminar (1)

Reports and discussions of student/faculty activities in environmental sciences.

#### **ENVS 7997 Environmental Practicum (1-6)**

Prereq.: Graduate standing in Environmental Sciences and consent of the instructor. Pass-fail grading. May be taken for a maximum of 12 credit hours, but no more than 3 hours may count toward the student's degree. Required of all students in the ENVS Professional Option program. Open to students accepted by an approved internship program or accepted for an approved team research project.

#### ENVS 7998 Environmental Colloquium (2)

May only be taken during semester of graduation. Nonthesis students only. Written and oral presentation of a literature review on a selected environmental issue, as approved by the departmental non-thesis committee.

**ENVS 8000 Thesis Research (1-12 per sem.)** *"S"/"U" grading.* 

ENVS 9000 Dissertation Research (1-12 per sem.) "S/U" grading.

### **Experimental Statistics**

#### EXST 2000 Introduction to Microcomputers (3)

*Credit will not be given for this course and CSC 1100, ISDS 1100 and LIS 2001. 2 hrs. lecture; 2 hrs. lab.* A useroriented introduction to microcomputers and applications software; terminology; hardware; software: the operating system, word processing, spreadsheets, data management, graphics, communications.

#### EXST 2201 Introduction to Statistical Analysis (4)

This is a General Education course. *Prereq.: MATH 1021* or equivalent. 3 hrs. lecture; 2 hrs. lab. Descriptive statistics; inferential statistical methods including confidence interval estimation and hypothesis testing for one and two population means and proportions; one-way analysis of variance; simple linear regression and correlation; analysis of categorical data.

#### EXST 3201 Statistical Analysis II (4)

*Prereq.: EXST 2201 or equivalent. 3 hrs. lecture; 2 hrs. lab.* Applied statistical modeling: multiple regression, variable selection, serial correlation, repeated measures, multivariate tools, logistic regression, blocking and factorial design, categorical data analysis and nonparametric techniques.

# EXST 3999 Supervised Independent Study and Research (1-4)

*Prereq.: consent of instructor. May be taken for a max. of 8 sem. hrs. of credit with consent of department head.* Investigation of areas of interest not covered in other departmental courses, under the guidance of departmental faculty.

# EXST 4012 Introduction to Sampling Techniques (3)

Offered in Su *Prereq.: EXST 2201 or equivalent.* Simple random, stratified random, cluster, systematic, multistage, multiphase and unequal probability sampling procedures methods and applications; ratio and regression estimation; non-response and non-sampling errors.

### EXST 4025 SAS Programming (3)

*Prereq.: EXST 2201 or equivalent.* Reading, processing, manipulating, transforming and outputting data in various formats; descriptive and summary statistics procedures; subsetting and combining data sets; DO loops and arrays; industry standard programming practices.

### EXST 4050 Principles and Theory of Statistics (4)

*Prereq.: EXST 2201 or equivalent and MATH 1550 or equivalent. 3 hrs. lecture; 2 hrs. lab.* Probability distributions as models for real-world processes; sampling distributions and the central limit theorem; estimation and confidence region methods; principles of hypothesis testing; modeling; emphasis on links between theory, methodology and application.

### EXST 4087 Special Topics in Applied Statistics (3)

Prereq.: EXST 2201 or equivalent. May be taken for a max. of 6 sem. hrs. of credit when topics vary.

### EXST 7003 Statistical Inference I (4)

Prereq.: MATH 1021 or equivalent. Credit will be given for only one of the following: EXST 7003, EXST 7004, EXST 7005, EXST 7009. 3 hrs. lecture; 2 hrs. lab. Basic concepts of statistical models and sampling; descriptive and inferential methods; normal, t, chi-square and F distributions; tests of hypothesis and estimation, analysis of variance, correlation, regression, analysis of categorical data; emphasis on social and behavioral sciences research problems; computer software applications.

### EXST 7004 Experimental Statistics I (4)

Prereq.: MATH 1021 or equivalent. Credit will be given for only one of the following: EXST 7003, 7004, EXST 7005, EXST 7009. 3 hrs. lecture; 2 hrs. lab. Basic concepts of statistical models and use of samples; measures of variation and central tendency; normal, t, chi-square and F distributions; test of hypothesis, analysis of variance, regression and correlation; emphasis on laboratory-oriented sciences research problems; computer software applications.

# EXST 7005 Statistical Techniques I (4)

Prereq.: MATH 1021 or equivalent. Credit will be given for only one of the following: EXST 7003, EXST 7004, 7005, EXST 7009. 3 hrs. lecture; 2 hrs. lab. Basic concepts of statistical models and sampling methods, descriptive statistical measures, distributions, tests of significance, analysis of variance, regression, correlation and chi-square; emphasis on field-oriented life sciences research problems; computer software applications.

## EXST 7009 Statistical Methods I-Web-Based (3)

Prereq.: MATH 1021 or equivalent and knowledge of SAS statistical analysis software. Credit will be given for only one of the following: EXST 7003, EXST 7004, EXST 7005, 7009. Basic concepts of statistical models and use of samples; measures of variation and central tendency, normal, t, chi-square and F distributions; tests of hypothesis; analysis of variance, regression and correlation; emphasis on field-oriented life science research problems.

# EXST 7011 Nonparametric Statistics (3)

Offered in Su *Prereq.: EXST 7003 or EXST 7004 or EXST 7005 or equivalent.* Nonparametric one- and two-sample location and distribution tests, including binomial, chi-square, Kolmogorov-Smirnov, Mann-Whitney U, Wilcoxon; analyses of variance, including Cochran's Q, Kruskal-Wallis, Friedman; correlation and regression, including Kendall's tau, Spearman's rho and point biserial.

# EXST 7012 Fundamental Sampling Techniques (3)

*Prereq.: EXST 7003 or EXST 7004 or EXST 7005 or equivalent.* Simple and stratified random sampling; ratio and regression estimation; cluster, multistage and multiphase sampling procedures; systematic sampling; nonresponse and nonsampling errors; links between methodology and application emphasized.

# EXST 7013 Statistical Inference II (4)

Prereq.: EXST 7003 or equivalent. Credit will be given for only one of the following: EXST 7013, EXST 7014, EXST 7015, EXST 7019. 3 hrs. lecture; 2 hrs. lab. Analyses of variance and experimental designs; completely randomized and complete block designs; latin square designs; split plot; arrangements of treatments; multiple comparisons; covariance analysis; multiple and curvilinear regression techniques; emphasis on social and behavioral sciences research problems.

# EXST 7014 Experimental Statistics II (4)

Prereq.: EXST 7004 or equivalent. Credit will be given for only one of the following: EXST 7013, 7014, EXST 7015, EXST 7019. 3 hrs. lecture; 2 hrs. lab. Multiple classification analysis of variance and covariance, individual degrees of freedom, factorial arrangement of treatments and multiple regression; emphasis on science/laboratory research problems.

### EXST 7015 Statistical Techniques II (4)

Prereq.: EXST 7005 or equivalent. Credit will be given for only one of the following: EXST 7013, EXST 7014, 7015, EXST 7019. 3 hrs. lecture; 2 hrs. lab. Multiple classification analyses of variance and covariance, sampling designs, parameter estimation, multiple regression and correlation, tests of specific hypothesis, and factorial experiments; emphasis on field-oriented life sciences research problems

#### EXST 7019 Statistical Methods II–Web-Based (3)

Prereq.: EXST 7003 or EXST 7004 or EXST 7005 or EXST 7009 or equivalent and knowledge of SAS statistical analysis software. Credit will be given for only one of the following: EXST 7013, EXST 7014, EXST 7015, 7019. Multiple classification analyses of variance and covariance; sampling designs, parameter estimation, multiple regression and correlation, tests of specific hypotheses and factorial experiments; emphasis on field-oriented life science research problems.

### EXST 7025 Biological Population Statistics II (3)

*Prereq.: EXST 7015 or equivalent.* Extensive development and application of statistical techniques to parameter estimation in population dynamics; principles of model building and role of model building in population management.

### **EXST 7031 Experimental Design (3)**

*Prereq.: EXST 7013 or EXST 7014 or EXST 7015 or equivalent.* Comparison of designs, models and analyses; emphasis on factorial experiments, complete and incomplete block designs, and confounding.

### EXST 7034 Regression Analysis (3)

*Prereq.: EXST 7013 or EXST 7014 or EXST 7015 or equivalent and knowledge of matrix algebra.* Fundamentals of regression analysis, stressing an understanding of underlying principles; response surfaces, variable selection techniques and nonlinear regression.

#### EXST 7036 Categorical Data Analysis (3)

*Prereq.: EXST 7013 or EXST 7014 or EXST 7015 or equivalent.* Statistical techniques used in analyzing data from discrete distributions; contingency tables, loglinear and logit models, logistic regression and repeated measures for nominal and ordinal data; emphasis on computer analysis and interpretation.

### EXST 7037 Multivariate Statistics (3)

*Prereq.: EXST 7013 or EXST 7014 or EXST 7015 or equivalent and knowledge of matrix algebra.* Comparison of multivariate techniques and analyses; emphasis on discriminant analysis, factor analysis and principal component analysis, canonical correlation, cluster analysis and multivariate analysis of variance.

# EXST 7039 Statistical Methods for Reliability and Survival Data (3)

*Prereq.: EXST 7013 or EXST 7014 or EXST 7015.* Characteristics of lifetime data; non-parametric methods including Kaplan Meier estimation; lifetime parametric models, parametric methods for single distribution data; planning life test; system reliability concepts; failure time regression; accelerated testing.

### EXST 7060 Probability and Statistics (3)

*Prereq.: MATH 2057 or equivalent.* Probability, random variables, discrete and continuous distribution functions; expected values, moment generating functions; functions of random variables.

#### EXST 7061 Statistical Theory (3)

*Prereq.: EXST 7060 or equivalent.* Point estimation; hypothesis testing; interval estimation; large sample theory; new developments in statistical inference.

# EXST 7083 Practicum in Statistical Consulting I (2)

Prereq.: EXST 7013 or EXST 7014 or EXST 7015 and permission of instructor. 4 hrs. independent study Supervised application of statistical techniques to research problems; readings, oral presentations and discussions on statistical consulting; problem-solving; mock-consulting sessions; participation in real-life statistical consulting sessions under faculty supervision.

# EXST 7084 Practicum in Statistical Consulting II (2)

Prereq.: EXST 7083 and permission of instructor. May be taken for a max. of 6 sem. hrs. credit. 4 hrs. independent study. Primary responsibility for statistical consulting projects under the supervision of graduate faculty.

# EXST 7085 Special Problem in Statistics (1-3)

Prereq.: permission of department. Pass-fail grading. A technical paper on an advanced topic in statistics is required. Development of a topic in advanced statistics under faculty supervision.

### EXST 7086 Advanced Seminar in Statistics (1)

*Prereq.: consent of instructor. Pass-fail grading. May be repeated for credit when topics vary.* Develop and present a 50-minute seminar on an advanced topic in statistics as a part of the department's seminar series.

#### EXST 7087 Advanced Topics in Statistics (1-3)

*Prereq.: consent of instructor. May be repeated for credit when topics vary.* Lectures on advanced topics in statistics not covered in other experimental statistics courses.

#### EXST 7142 Statistical Data Mining (3)

*Prereq.:* EXST 7013, EXST 7014, EXST 7015, EXST 7019 or equivalent. Data preparation; predictive modeling, including normal-based and logistic regression, decision trees, neural networks, ensemble methods; handling missing data; model assessment and model comparison; model implementation and scoring of new data; pattern discovery.

# EXST 7151 Bayesian Data Analysis (3)

*Prereq.*: EXST 7013 or EXST 7014 or EXST 7015 and EXST 7060 or consent of department head. Introduction to Bayesian statistical methods and their application in fields such as agriculture, biology, engineering and medicine; topics include non-informative, conjugate and elicited priors; posterior development; common single and multiple parameter models such as binomial, normal, Poisson, and exponential; hierarchical models; hypothesis testing and credible sets; posterior simulation via Markov Chain Monte Carlo; and performance of Bayesian procedures.

# EXST 7152 Advanced Topics in Statistical Modeling (3)

*Prereq.: EXST 7013 or EXST 7014 or EXST 7015 and EXST 7034 or equivalent or consent of department head.* Regularized linear regression and classification methods; penalized spline fitting to normal and non-normal data; tree-based methods; ensemble methods including boosting; support vector machine and kernel-based methods.

# EXST 7999 Independent Study (1-3)

*Prereq.: permission of instructor. May be taken for a max. of 9 sem. hrs. of credit when topics vary.* Independent study under the guidance of graduate faculty.

# EXST 8000 Thesis Research (1-12 per sem.)

"S"/"U" grading.

# **Environmental Engineering**

# EVEG 1050 Introduction to Environmental Engineering (1)

Designed for Environmental Engineering majors; open to non-majors by consent of department. 2 hrs. lab. Introduction to the environmental engineering discipline; fundamentals of engineering design and methods; overview of professional ethics, regulations, and the multimedia aspects of the discipline; technical presentation and communication skills.

# EVEG 2000 Environmental Engineering I (3)

*Prereq.: CHEM 1202 and MATH 1550.* Basic principles of calculations in environmental engineering; overview of professional ethics; regulations and multimedia aspects of environmental problem solving with emphasis on fundamental concepts and definitions.

# EVEG 2050 Environmental Engineering Design Methods (1)

Designed for Environmental Engineering majors; open to non-majors by consent of department. 2 hrs. lab. Casebased, design studies to expose students to the components of professional environmental designs; component exposure includes regulations, numerical methods software, design drawing interpretation, ethics, economics, social consideration, design alternative decision analysis.

# EVEG 3050 Global Issues in Environmental Engineering (1)

Designed for Environmental Engineering majors; open to non-majors by consent of department. 2 hrs. lab. Past and current global topics used to investigate the impact of global issues on local, regional and state environmental engineering design and decision-making processes.

### EVEG 3110 Water and Wastewater Treatment (3)

*Prereq.: CE 2200 (a grade of "C" or better is required in CE 2200).* Physical, chemical and biological characteristics of water and wastewater; water quality regulation; basic reactor engineering; operation and simple design of physical, chemical and biological unit processes in water and wastewater treatment.

# EVEG 3120 Chemical Equilibrium and Kinetics of Environmental Processes (3)

Same as CHE 3100.

# EVEG 3145 Environmental Engineering III (3)

*Prereq.: CHEM 2060/CHEM 2261.* Application of chemical principles to water quality problems in the area of water supply, wastewater treatment, and pollution of natural waters. Fundamentals of equilibrium chemistry, chemical kinetics, organic and colloidal chemistry as applied to environmental engineering.

### EVEG 3200 Water Resources Engineering (3)

*Prereq.: CE 2200.* Fundamentals of fluid mechanics applied to problems in the field of water; steady and unsteady flow in closed conduits including analysis of water supply systems, flow in open channels, storm and wastewater collection systems and turbo machinery; emphasis on computer methods.

# EVEG 3271 Senior Project I: Consulting Format (3)

Prereq.: EVEG 3200, EVEG 3110. Student project teams tackle selected design projects within a designated time allocation. Project management (proposals, flow charts, technical content) mimicking methodologies utilized by professional consulting firms; findings presented using professional format, i.e., final reports address rationale, process treatment trains and/or process sizing.

# EVEG 3273 Independent Undergraduate Research Project (1-4)

*Prereq.: EVEG 3145, EVEG 4136, and consent of department.* Independent research project under the direction of a faculty member. Students develop the objectives and scope of the research and conduct appropriate analytical and experimental (field and/or laboratory) studies. Results and conclusion of the project are summarized in a report and defended orally.

# EVEG 3400 Environmental Engineering II (3)

*Prereq.: CHEM 2060 (CHEM 2261); EVEG 2000.* Fundamentals of microbiology, ecology, enzyme kinetics and biochemistry as applied to environmental engineering; applications to biological wastewater treatment; bioremediation of soil, air, surface and ground waters, landfill and natural systems.

### EVEG 4105 Quantitative Water Management (3)

*Prereq.: EVEG 3110.* Quantitative tools used to solve water management problems based upon hydraulic, mass balance, stoichiometric, kinetic and equilibrium phenomena.

# EVEG 4110 Unit Operations Laboratory (1)

*Prereq.: CHEM 2060, EVEG 3110, EVEG 3145.* Understanding of the physical, biological and chemical operations and processes commonly utilized in environmental engineering; presentation of theoretical concepts and operational problems; laboratory experiments; and formal reports.

# EVEG 4120 Design of Solid and Hazardous Waste Management Systems (3)

*Prereq.: EVEG 3110 and EVEG 4125.* Design of solid and hazardous waste systems; process selection; elements of waste management systems; physicochemical, biological, and thermal process design; regulations related to design of waste management systems.

# EVEG 4125 Environmental Transport Processes (3)

*Prereq.: EVEG 3120 and EVEG 3200.* Fundamentals of chemical transport in engineered environments and natural systems with an emphasis on applications to environmental engineering practice.

# EVEG 4136 Water Quality Analysis Laboratory (1)

Prereq.: CHEM 1212, ENGL 2000, EXST 2201 and credit or registration in EVEG 3145.

Water quality analysis of wastewater and natural waters.

# EVEG 4150 Integrated Environmental System Design I (3)

*Prereq.: EVEG 3110 and EVEG 4125.* Preliminary designs will be applied to final full designs in EVEG 4151. Principles of integrated environmental system design; economic, regulatory and risk-based requirements in initial preliminary design of environmental systems incorporating minimization, destruction, treatment and disposal technologies in all media; emphasis on preliminary design and screening of classical management systems.

# EVEG 4151 Integrated Environmental System Design II (3)

Prereq.: EVEG 4150. Continuation of EVEG 4150. Final project designs are presented to representatives of the public and private sectors. Economic, regulatory and risk-based requirements in completion of environmental design projects developed in 4150; minimization, destruction, treatment and disposal technologies in all media.

# EVEG 4154 Sustainability Engineering (3)

*Prereq.: CE 2450 or equivalent and consent of instructor.* Engineering analysis and design approaches that minimize impacts on the environment, human health and social conditions; ecodesign; life cycle assessment; full-cost accounting; pollution prevention.

# EVEG 4156 Water and Wastewater Treatment in Developing Countries (3)

*Prereq.: EVEG 3200 and EVEG 3110.* Design of sustainable water and wastewater treatment approaches in the developing world; low-cost, low-energy and low-maintenance treatment approaches; technology constraints; decentralized treatment strategies; case studies.

# EVEG 4780 Special Topics in Environmental Engineering Design (3)

Prereq.: senior standing and departmental approval. May be taken for a max. of 6 sem. hrs. of credit when topics vary. More than one section of this course may be taken for credit concurrently when topics differ. Selected topics in environmental engineering design.

# EVEG 4781 Special Topics in Environmental Engineering Science (3)

Prereq.: senior standing and departmental approval. May be taken for a max. of 6 sem. hrs. of credit when topics vary. More than one section of this course may be taken for credit concurrently when topics differ. Selected topics in environmental engineering science.

# Finance

# FIN 1060 Personal Money Management (1) *See HUEC 1060.*

#### FIN 2060 Survey of Investing I (1)

*Prereq.: credit or registration in FIN 1060.* Introduction to historical and contemporary issues in personal investing, including stocks, bonds, insurance, real estate and banking.

### FIN 3060 Fundamentals of Financial Planning (3)

*Prereq.: ECON 2000 or ECON 2001 and ECON 2010 or ECON 2011; or ECON 2030 or ECON 2031.* Development of bases for decision-making related to financial planning.

### FIN 3351 Principles of Real Estate (3)

*Prereq.: BLAW 3201 or FIN 3715 or FIN 3716.* Purchasing, owning and operating real estate relative to interest in realty, liens, contracts, deeds, titles, leases, brokerage, management.

#### FIN 3352 Real Estate Valuation and Investment (3)

*Prereq.: FIN 3351 or FIN 3715 or FIN 3716 or equivalent.* Principles of valuation applied to single-family and income-producing real property; techniques for making investment decisions in alternative types of real property; cash flow analysis considering income tax effects, financial leverage, risk-return trade-offs and alternative methods of disposition.

# FIN 3353 Real Estate Finance (3)

*Prereq.: FIN 3351 or FIN 3715 or FIN 3716 or equivalent.* Real estate financing decisions for residential and incomeproducing properties; risk-return analysis for varying conditions of financial leverage; decision making related to pricing, alternative financing methods, refinancing, mortgage portfolio management; financing methods; government involvement in mortgage market and housing finance.

## FIN 3440 Risk and Insurance (3)

*Prereq.: BLAW 3201.* Nature of nonspeculative risks and possible alternative methods of treating them; specific application of these methods to personal and business risks arising from life, health, property and liability contingencies; influence of public policy on risk treatment.

### FIN 3460 Risk Management (3)

*Prereq.: FIN 3715 or FIN 3716.* Risk management from the business manager's viewpoint; insurance and financial market methods of pooling and managing risk; identification and evaluation of risk; hedging, self insurance, recontracting and organizational design.

### FIN 3632 Bank Administration (3)

*Prereq.: FIN 3715 or FIN 3716.* For students interested in commercial banking careers or in the role of banks within the American enterprise system. Economic role and evolution of banks; structure of banking; lending and investment techniques; bank organization and regulation; asset and liability management; credit risk management; bank performance analysis.

### FIN 3636 Financial Markets and Institutions (3)

*Prereq.: FIN 3715 or FIN 3716 or equivalent.* Characteristics and functions of financial markets and institutions; process of financial intermediation and allocation of financial resources; analysis of current developments in financial institutions and in money and capital markets; factors in interest rate determination; management of credit risk, interest rate risk and operating risk.

### FIN 3715 Business Finance (3)

Prereq.: ECON 2000 and ECON 2010, or ECON 2030; and ACCT 2000 or ACCT 2001. Credit will not be given for this course and FIN 3716. Not open to students in the E. J. Ourso College of Business. Finance function within the business enterprise; techniques of financial management, concepts of capital structure and dividend policy, working capital management, capital budgeting, institutional and international environment of the firm.

### FIN 3716 Financial Management (3)

Prereq.: ECON 2000 and ECON 2010 and ACCT 2001. Credit will not be given for both this course and FIN 3715. Intended primarily for students in the E. J. Ourso College of Business. Students minoring in business should enroll in FIN 3715. Principles and procedures of financial management; investment and financing decisions within the business enterprise.

# FIN 3717 Advanced Business Finance (3)

Prereq.: FIN 3716. Open only to finance majors; open to others with permission of department. Material presented in real-world cases. Hands on applications of financial tools introduced in FIN 3716; financial analysis, forecasting, capital budgeting and business evaluation.

## FIN 3718 Multinational Managerial Finance (3)

*Prereq.: FIN 3715 or FIN 3716.* Multinational financial management; nature of international finance system; financing, investment and risk management of the multinational corporation.

# FIN 3826 Investments (3)

Prereq.: FIN 3716. Open only to finance majors; open to others with permission of the department. Characteristics and valuation of common stocks, bonds, options, function and efficiency of U.S. securities markets; theory and practice of portfolio selection.

# FIN 3840 Fixed Income Securities (3)

*Prereq.: FIN 3826.* Mechanics of fixed-income markets and securities; valuation of fixed income securities and contingent claims; interest rate risk, term structure, product fundamentals and bond portfolio strategies.

# FIN 3845 Student Managed Investment Fund (3)

Prereq.: FIN 3715 or FIN 3716 or equivalent and permission of instructor. Course may be repeated for a max. of 9 sem. hrs. of credit. Analysis of equity investment opportunities in conjunction with the management of the Student Managed Investment Fund; emphasis on valuation techniques and fundamental analysis; operation of investment reporting systems.

# FIN 3900 Directed Study and Research (1-6)

Prereq.: consent of instructor. May be taken for a max. of 6 sem. hrs. of credit. Research under direction of faculty member; written proposal must be approved by faculty member and department chair prior to registration.

### FIN 3910 Topics in Finance (1-3)

*Prereq.: FIN 3826 or consent of instructor. May be taken for a max. of 6 sem. hrs. of credit when topics vary.* Topics of current interest.

### FIN 3930 Undergraduate Internship in Finance (3)

Prereq.: FIN 3715 or FIN 3716, junior or senior standing and consent of department. Pass/fail grading based on a written evaluation by the professional supervisor, a written report by the student and the faculty member's evaluation. May not be repeated for credit. At least 20 hours per week in regular semester or 35 hours per week in summer session of learning experience in finance under the general supervision of a faculty member and the direct supervision of a professional in finance. On-the-job experience in an approved finance or business law position.

# FIN 4060 Survey of Investing II (1)

Prereq.: FIN 2060 and FIN 3715 or FIN 3716. Must be taken during the final semester of the coursework for the Personal Investing minor.

Capstone course in the Personal Investing minor.

# FIN 4071 Retirement Planning and Employee Benefits for Financial Planning (3)

*Prereq.: FIN 3060 or equivalent.* Decision-making related to retirement planning and employee benefits.

# FIN 4073 Estate Planning for Financial Planning (3)

*Prereq.: FIN 3060 or equivalent.* Decision-making related to estate planning.

# FIN 4079 Financial Planning Capstone (3)

*Prereq.: FIN 3060 or equivalent, FIN 3826, FIN 4071, and FIN 4073.* Advanced financial topics and development of a comprehensive financial plan.

# FIN 4828 Security Analysis and Portfolio Management (3)

*Prereq.: FIN 3826 or equivalent. Open only to Finance majors; open to others with permission of department.* Security selection and portfolio diversification in an efficient market; portfolio theory and management; portfolio building and selection; portfolio performance evaluations.

# FIN 4830 Analysis of Corporate Financial Statements (3)

*Prereq.: FIN 3716 or equivalent. Open only to finance majors; open to others with permission of department.* Evaluation of financial statements; emphasis on their use in credit analysis and in evaluation of security risks and returns; recent research in accounting and finance; predictive ability of financial statement data.

### FIN 4850 Financial Derivatives (3)

Prereq.: FIN 3636, FIN 3717 or FIN 3826. Open only to Finance majors; open to others with permission of department. Options, forwards, futures, swaps and other derivative instruments; principles of pricing, valuation models, trading strategies and managing risk in domestic and global financial markets.

### FIN 7300 Seminar in Real Estate (3)

Questions facing participants in the real estate market, including equity investors, lenders, tenants and government; purchasing, owning and operating real estate relative to interest in realty contracts; deeds, title, leases, brokerage and management.

# FIN 7310 Real Estate Financial Decisions (3)

Questions concerning real estate finance and valuation; risk-return trade-offs under varying conditions of financial leverage; refinancing; selecting between alternative financing methods; mortgage design, sale-leaseback, construction lending, secondary mortgage markets and the pricing of financing instruments.

# FIN 7400 Financial Risk Management (3)

*Prereq.: BADM 7090 or equivalent.* Risk management of corporations, financial institutions, governments and non-profit organizations; characteristics of financial contracts and markets and applications of these contracts to risk management problems; the value of risk management, measuring exposures, financial contracts for managing risk, the enterprise risk management industry and the accounting and regulatory framework; market and credit risks are the primary focus, but some attention is also given to operational and other sources of risk.

# FIN 7520 Seminar in Financial Research Methods (3)

*Primarily for doctoral students*. Financial economics; empirical behavior of financial markets; topics including trading rules and the efficient market hypothesis; market microstructure; event studies.

# FIN 7550 Theory of Finance (3)

*Prereq.: ECON 7610 or equivalent.* Theory of choice under certainty and uncertainty; time-state preference models of risk allocation; mean-variance asset pricing models; arbitrage pricing models; option pricing models; discrete and continuous time models.

# FIN 7632 Seminar in Commercial Banking (3)

Commercial banking theory and history, quantitative techniques applied to bank asset and liability management, banking structure, markets and competition, capital adequacy and profitability.

### FIN 7633 Financial Markets (3)

#### Prereq.: BADM 7020.

Theoretical and empirical exposition of financial markets and institutions; their role in the economy; determination of the general level, risk structure and the transaction structure of security returns; emphasis on U.S. financial markets.

# FIN 7650 Seminar in Financial Markets and Intermediaries (3)

*Prereq.: FIN 7550. Primarily for doctoral students.* Markets and intermediaries as alternative institutional mechanisms for structuring financial transactions; transaction services provided by these institutions; benefits and costs of these transaction services as determinants of the structure and extent of the financial sector.

#### **FIN 7710 Public Financial Management (3)** *Cross-listed as PADM 7924.*

### FIN 7718 Multinational Financial Management (3)

*Prereq.: BADM 7090 or equivalent.* Cross border investment, investment analysis, capital planning, foreign currency exposure and cash management; concepts of political risk assessment; techniques in transactional trade; alternative financial sources; issues in international financial controls.

# FIN 7719 Advanced Financial Management (3)

*Prereq.: BADM 7090.* Theory of business finance and evaluation of its usefulness to financial managers; capital expenditure, capital structure and dividend decisions; legitimacy of alternative decision criteria; implications of uncertainty and imperfect capital markets on firm financial decisions.

# FIN 7720 Topics in Business Finance (3)

Prereq.: BADM 7090 or equivalent. May be repeated for a max. of 9 sem. hrs. of credit when topics vary. Detailed treatment of topics not covered in depth in BADM 7090 or FIN 7719; prospectus usually available before registration.

# FIN 7740 Venture Capital and Investment Banking (3)

*Prereq.: BADM 7090 or equivalent.* The role of venture capitalists and investment banks in financing, advising and influencing companies through the initial public offering; the structure of venture capital funds; staging of investments; compensation; valuation; interactions between venture capital and economic activity, the legal environment and social and ethical norms.

#### FIN 7750 Seminar in Corporate Finance (3)

*Prereq.: FIN 7550. Primarily for doctoral students.* Theory of choice under certainty and uncertainty; investment and financing decisions of the firm; the agency problem and agency costs; capital structure and dividend models related to corporate control.

# FIN 7826 Investment Analysis and Portfolio Theory (3)

*Prereq.: BADM 7020 and BADM 7030.* Institutional elements of capital markets, mechanics of securities trading; analytic techniques for evaluating investment management; behavior of security prices, efficient diversification, techniques for measuring performance of securities and portfolios, security valuation, portfolio selection.

#### FIN 7845 Student Managed Investment Fund (3)

Prereq.: BADM 7090 or equivalent and permission of instructor. Course may be repeated for max. of 9 sem. hrs. of credit. Management and operation of the Student Managed Investment Fund; calculation and monitoring of performance in an institutional equity portfolio; establishment of investment objectives, including asset allocation and selection and assessment and management of risk; settlement, accounting and reporting of results.

#### FIN 7850 Seminar in Investments (3)

*Prereq.: FIN 7550. Primarily for doctoral students.* Speculative price as a stochastic process; information revelation in and through speculative price; normative and positive models of investment theory; applications of contingent-claims/derivative securities pricing; theory and empiricism of fixed income securities.

# FIN 7855 Seminar in Options, Futures and Other Derivatives (3)

*Prereq.: FIN 7826 and ECON 7610 or equivalent; consent of instructor; mathematical maturity required.* Arbitrage and equilibrium models of derivative pricing; models derived via continuous time Ito processes; binomial, finite difference, Monte Carlo and other numerical approaches; review of mathematical statistics, stochastic processes and Ito calculus.

#### FIN 7900 Individual Study in Finance (3)

Masters and doctoral students may take the course for credit 3 and 6 times, respectively. For students who wish in-depth study of a selected finance problem. Proposal outlining nature and objectives of a research project must be approved by department faculty prior to registration; written report of semester's activities and findings required for credit.

### FIN 7930 Graduate Internship in Finance (3)

Prereq.: consent of department. Pass/fail grading based on a written evaluation by the professional supervisor; a written report by the student and the faculty member's evaluation. At least 20 hrs. per week in regular semester or 35 hrs. per week in summer session of learning experience in finance under the general supervision of a faculty member and the direct supervision of a professional in finance. On-the-job experience in an approved finance position.

#### FIN 7950 Seminar in Research (1)

Required of all doctoral students in business administration concentrating in finance during each semester of full-time residence; only 3 sem. hrs. may be applied toward the degree. Advanced research in finance; current research of doctoral candidates, faculty and invited guests.

FIN 8000 Thesis Research (1-12 per sem.) "S"/"U" grading.

# FIN 8900 Pre-dissertation Research (1-9)

Pass-fail grading. May be repeated for credit.

FIN 9000 Dissertation Research (1-12 per sem.) "S"/"U" grading.

# French

#### FREN 1001 Elementary French (4)

[LCCN: CFRN 1014, Elementary French I] This is a General Education course. Students with previous study of French should take the French placement exam. Students who do not place in FREN 1002 or higher through the placement exam should enroll in FREN 1001. Students with no previous study of French should enroll in FREN 1001. Students completing FREN 1002 or equivalent or higher with a grade of "C" or higher may not enroll in FREN 1001 for credit without permission of department. Students completing FREN 2101 or higher or equivalent, with a grade of "C" or higher, may not enroll in FREN 1002 for credit without permission of department. Native speakers of French will not receive credit for this course. Basic lexicon and structure of French; emphasis on communicative language use; supplementary work in language laboratory.

#### FREN 1002 Elementary French (4)

[LCCN: CFRN 1024, Elementary French II] This is a General Education course. Prereq.: FREN 1001 or equivalent prior study is prerequisite for FREN 1002. Students with previous study of French should take the French placement exam. Students who do not place in FREN 1002 or higher through the placement exam should enroll in FREN 1001. Students with no previous study of French should enroll in FREN 1001. Students completing FREN 1002 or equivalent or higher with a grade of "C" or higher may not enroll in FREN 1001 for credit without permission of department. Students completing FREN 2101 or higher or equivalent, with a grade of "C" or higher, may not enroll in FREN 1002 for credit without permission of department. Native speakers of French will not receive credit for this course. Basic lexicon and structure of French; emphasis on communicative language use; supplementary work in language laboratory.

#### FREN 1020 French for Reading Knowledge (3)

Specialized course to satisfy departmental reading requirement for graduate students, but carrying no graduate credit. Undergraduates may enroll on pass-fail basis only. Does not count toward satisfying foreign language requirement for undergraduates, although hours may count toward baccalaureate. Credit will not be given for both this course and introductory French courses. Native speakers of French will not receive credit for this course.

#### FREN 1201 Elementary Cajun French (4)

This is a General Education course. Credit will not be given for both FREN 1001 and FREN 1201 nor for both FREN 1002 and FREN 1202. Students with previous study of French should take the French placement exam. Student who do not place in FREN 1002 or higher through the placement exam should enroll in FREN 1201. Basic lexicon and structure of Cajun French; emphasis on communicative language use; supplementary work in language laboratory.

# FREN 1202 Elementary Cajun French (4)

This is a General Education course. Prereq.: FREN 1001, FREN 1201 or equivalent prior study is prerequisite for FREN 1202. Credit will not be given for both FREN 1001 and FREN 1201 nor for both FREN 1002 and FREN 1202. Students with previous study of French should take the French placement exam. Student who do not place in FREN 1002 or higher through the placement exam should enroll in FREN 1201. Basic lexicon and structure of Cajun French; emphasis on communicative language use; supplementary work in language laboratory.

#### FREN 2101 Intermediate French (3)

[LCCN: CFRN 2013, 2026, Intermediate French I] This is a General Education course. *FREN 1002 or equivalent* prior study is prerequisite for FREN 2101. Students completing FREN 2102 or equivalent or higher, with a grade of "C" or higher, may not enroll in FREN 2101 for credit without permission of the Department. Students completing FREN 2155 or equivalent or higher, with a grade of "C" or higher, may not enroll in FREN 2102 for credit without permission of the Department. Continuation of elementary French. Native speakers of French will not receive credit for this course. Structures and lexicon of French; additional emphasis on reading and writing; supplementary work in language laboratory.

#### FREN 2102 Intermediate French (3)

[LCCN: CFRN 2023, 2026, Intermediate French II] This is a General Education course. *Prereq.: FREN 2101 or equivalent. Students completing 2102 or equivalent or higher, with a grade of "C" or higher, may not enroll in FREN 2101 for credit without permission of the Department. Students completing FREN 2155 or equivalent or higher, with a grade of "C" or higher, may not enroll in FREN 2102 for credit without permission of the Department. Continuation of elementary French.* Structures and lexicon of French; additional emphasis on reading and writing; supplementary work in language laboratory.

### FREN 2154 Intermediate Oral Communication (3)

Prereq.: FREN 2101, FREN 2201 or concurrent enrollment in FREN 2101 or FREN 2201. Native speakers of French will not receive credit for this course. Development of listening and speaking competency.

### FREN 2155 Readings in French Literature (3)

This is a General Education course. *Prereq.: FREN 2102* or equivalent. Native speakers of French will not receive credit for this course. Introduction to interpretive reading of French texts; development of competency in written French.

### FREN 2201 Intermediate Cajun French (3)

This is a General Education course. *Prereq.: FREN 1202, FREN 1002 or equivalent prior study is prerequisite for FREN 2201. Credit will not be given for both FREN 2101 and FREN 2201 nor for FREN 2102 and FREN 2202. Continuation of elementary Cajun French.* Structures and lexicon of French as it is spoken in Louisiana. Emphasis on comprehension and production of extended discourse, both oral and written; supplementary work in language lab and one field work project required.

# FREN 2202 Intermediate Cajun French (3)

This is a General Education course. *Prereq.: FREN 2201, FREN 2101 or equivalent prior study is a prerequisite for FREN 2202. Credit will not be given for both FREN 2101 and FREN 2201 nor for FREN 2102 and FREN 2202. Continuation of elementary Cajun French.* Structures and lexicon of French as it is spoken in Louisiana. Emphasis on comprehension and production of extended discourse, both oral and written; supplementary work in language lab and one field work project required.

# FREN 2254 Intermediate Oral Communication in Cajun French (3)

*Prereq.: FREN 2101, FREN 2201 or concurrent enrollment in FREN 2201 or FREN 2101.* Development of listening and speaking competency.

#### FREN 2801 French Classics in Translation (3)

*For non-French majors.* Introduction to the classics of French letters.

### FREN 3058 Advanced Oral Communication (3)

Native speakers of French will not receive credit for this course. Development of listening and speaking competency using video and text materials; special problems in spoken French including register and variation.

# FREN 3060 Advanced French Grammar and Composition (3)

*Prereq.: credit or registration in FREN 2155 or equivalent or permission of instructor.* Special problems in French grammar and syntax; emphasis on the written language.

#### FREN 3071 Survey of French Literature (3)

Prereq.: FREN 2155 or equivalent; credit or registration in FREN 3060 or equivalent or permission of instructor. French majors are strongly urged to enroll in this course before their senior year. Development of French literature from its beginnings through the 18th century.

### FREN 3072 Survey of French Literature (3)

Prereq.: FREN 2155 or equivalent; credit or registration in FREN 3060 or equivalent or permission of instructor. French majors are strongly urged to enroll in this course before their senior year. Continuation of FREN 3071. The main authors and literary movements from the 18th century to the present.

# FREN 3076 Introduction to Francophone Cultures (3)

*Prereq.: FREN 3060 or equivalent.* An overview of the manifestations of Francophone cultures in Africa, the Caribbean, Southeast Asia and Canada.

#### FREN 3080 French Culture and Civilization (3)

Also offered as LING 3080. Prereq.: FREN 2155; credit or registration in FREN 3060 or equivalent or permission of instructor.

Various aspects of French culture and civilization; emphasis on those factors necessary for understanding contemporary France and the Francophone world.

### FREN 3090 Francophone Texts and Contexts (3)

May be taken for a max. of 6 sem. hrs. of credit when subject matter varies. Taught in French and English. Focus on specific aspects of Francophone literature, culture, history and thought.

#### FREN 3260 Structure of Louisiana French (3)

Also offered as LING 3260. Prereq.: FREN 2102 or FREN 2202 or equivalent fluency in French. Descriptive study of the structure and lexicon of Louisiana French dialects, with particular emphasis on the variety known as Cajun; emphasis on contrast with normed French, as well as comparison with other regional varieties.

#### FREN 3280 Cajun French Culture (3)

Also offered as LING 3280. Prereq.: FREN 2102 or equivalent. Taught in French. Various aspects of Cajun French culture in Louisiana; emphasis on both traditional folk culture and contemporary issues.

#### FREN 3295 Special Topics in Louisiana French (3)

Prereq.: FREN 2102 or FREN 2202 or equivalent fluency in French. May be taken for a max. of 6 sem. hrs. credit when topics vary.

# FREN 3401 Tutoring Learners of French as a Second Language (1)

*Prereq.: FREN 2155 or equivalent; EDCI 2001; concurrent enrollment in EDCI 3001.* A carefully monitored and evaluated French tutoring experience in a local middle or high school under the guidance of the course instructor and a mentoring teacher.

#### FREN 3402 Developing Language Lessons for French as a Second Language (1)

Prereq.: EDCI 3001, FREN 3401 and concurrent enrollment in EDCI 3136.

*3 hrs. lab/field experiences in multicultural settings.* Under the supervision of a French faculty member and a teacher mentor, teacher candidates will prepare and deliver second language French language lessons that incorporate audiovisual materials and technology-enhanced language learning activities.

#### FREN 4000 Old French and Medieval Literature (3)

*Prereq.: FREN 3071 and FREN 3072 or equivalents or permission of instructor.* Major aspects of the language and literature of the period.

# FREN 4001 History of the French Language (3)

Also offered as LING 4001. Prereq.: FREN 3060 or equivalent or permission of instructor. Development of French from its beginnings to the present; attention to formation of the modern language.

### FREN 4003 Senior Seminar (3)

*Prereq.: FREN 3060, FREN 3071 and FREN 3072 or equivalent and senior standing. Required of French majors.* Research project on a topic in French or Francophone literature, language or civilization.

# FREN 4010 French Literature of the 16th Century (3)

*Prereq.: FREN 3071 and FREN 3072 or equivalents or permission of instructor.* Major aspects of the literature of the period; topics will focus variously on an author, a theme or a genre.

#### FREN 4014 Introduction to French Linguistics (3)

Also offered as LING 4014. French phonology, morphology and syntax.

### FREN 4015 Advanced French Phonetics (3)

Also offered as LING 4015. Theoretical principles of French phonetics and their application.

# FREN 4030 French Literature of the 18th Century (3)

Prereq.: FREN 3071 and FREN 3072 or equivalents or permission of instructor. Major literary, philosophic and scientific currents of the period and their interrelations.

### FREN 4031 The French Film (3)

*Prereq.: FREN 3060 or equivalent or permission of instructor.* Art of the French film from Louis Lumière to the present; its interrelations with French literature; screening and analyses of representative films.

# FREN 4040 French Literature of the 19th Century (3)

*Prereq.: FREN 3071 and FREN 3072 or equivalents; or permission of instructor.* Major aspects of the literature of the period.

### FREN 4041 Translation Skills (3)

Prereq.: FREN 3060 or equivalent or permission of instructor. An analytic approach to the structures of English and French; strategies and techniques for their translation in literary, technical and scientific contexts.

# FREN 4050 French Literature of the 20th Century (3)

Prereq.: FREN 3071 and FREN 3072 or equivalents; or permission of instructor. Major aspects of the literature.

#### FREN 4051 French for Business (3)

*Prereq.: FREN 3060 or equivalent; or permission of instructor.* Language acquisition for students preparing for careers involving trade or business activities with Frenchspeaking areas.

# FREN 4060 French Literature of Quebec (3)

*Prereq.: FREN 3071 and FREN 3072 or equivalents; or permission of instructor.* Major aspects of the literature of Quebec.

# FREN 4070 Literature of Africa and the Caribbean (3)

Prereq.: FREN 3071 and FREN 3072 or equivalents or permission of instructor. Major aspects of francophone African and Caribbean literature.

#### FREN 4080 Special Topics in French/Francophone Cultures and Civilizations (3)

Prereq.: FREN 3060 or equivalent; or permission of instructor. May be taken for a max. of 6 hrs. of credit when topics vary.

# FREN 4090 French and Francophone Women Writers (3)

Prereq.: FREN 3071 and FREN 3072 or equivalents or permission of instructor. Women's writing in France and in Francophone countries from the middle ages to the present.

# FREN 4100 Special Topics in French Language and Literature (3)

Prereq.: FREN 3060 or equivalent; or permission of instructor. May be taken for a max. of 6 hrs. of credit when topics vary.

# FREN 4403 Instructional Strategies for the Second Language French Classroom (1)

Prereq.: EDCI 3136, FREN 3402, and concurrent enrollment in EDCI 4003. Teacher candidates will study and participate in activities that incorporate different classroom interactional structures, including teacher-towhole class, task-based group activities and student-tostudent (pair work); candidates will design and conduct French language lessons using learner-centered activities.

# FREN 4404 Critical Issues in Teaching French as Second Language: Capstone Course (3)

Prereq.: EDCI 4003, FREN 4403, and concurrent enrollment in EDCI 4004 and EDCI 4005. Teacher candidates should be in their last two semesters of completion of the requirements for a major in French. Taught in French. Focus on the consolidation of knowledge about the French language, literature and culture with respect to the teaching of subject content to middle or high school learners.

### FREN 4915 Independent Work (1-3)

*Prereq.: FREN 3060 or equivalent or permission of instructor. May be taken for a max. of 3 hrs. of credit.* Readings in French literature directed by a senior faculty member.

# FREN 7006 Studies in Medieval French Literature (3)

*Prereq.: May be taken for a max. of 6 hrs. of credit with consent of department if content varies.* Topics focus on an author, movement, or literary mode.

# FREN 7022 Studies in 17th Century French Literature (3)

May be taken for a max. of 6 hrs. of credit with consent of *department if content varies*. Topics focus on an author, movement or literary mode.

# FREN 7032 Studies in 18th Century French Literature (3)

May be taken for a max. of 6 hrs. of credit with consent of department, if content varies. Topics focus on an author, movement or literary mode.

### FREN 7042 Studies in 19th Century French Literature (3)

May be taken for a max. of 6 hrs. of credit with consent of department, if content varies. Topics focus on an author, movement, or literary mode.

### FREN 7051 The 20th Century Novel (3)

The works of such major novelists of the modern period as Gide, Proust, Malraux, Camus, Beckett and Robbe-Grillet.

# FREN 7052 Studies in 20th Century French Literature (3)

May be taken for a max. of 6 hrs. of credit with consent of department, if content varies. Topics focus on an author, movement or literary mode.

# FREN 7100 Studies in Sub Saharan Francophone Literature and Culture (3)

May be taken for a max. of 6 sem. hrs. credit with consent of department, if content varies. The major movements and authors of francophone literature in the cultural context of Sub Saharan Africa.

# FREN 7102 Studies in North African Francophone Literature and Culture (3)

May be taken for a max. of 6 sem. hrs. credit with consent of department, if content varies. The major movements and authors of francophone literature in the cultural context of North Africa.

# FREN 7120 Studies in Francophone Asian Literature and Culture (3)

May be taken for a max. of 6 sem. hrs. credit with consent of department, if content varies. The major movements and authors of francophone literature in the context of Francophone Asia.

# FREN 7140 Studies in Caribbean Francophone Literature and Culture (3)

May be taken for a max. of 6 sem. hrs. credit with consent of department, if content varies. The major movements and authors of Francophone literature in the cultural context of the Caribbean.

# FREN 7170 Studies in Belgian Francophone Literature and Culture (3)

May be taken for a maximum of 6 hrs. credit with approval of the department, if content of the course varies. Topics focus on major literary authors, movements, genres and/or forms of artistic expression such as the graphic novel, film or the visual arts which illustrate the specificity of Belgian Francophone Literature and Culture.

## FREN 7300 Old Provençal (3)

Phonology and morphology of Old Provençal based on the study of literary texts.

# FREN 7410 Studies in Contemporary French Theory (3)

May be taken for a max. of 6 sem. hrs. of credit with consent of department, when subject matter varies. Selected movements and thinkers of French theory after 1960.

# FREN 7915 Independent Study (1-3)

May be taken for a max. of 3 hrs. credit in a master's program and 9 hrs. credit in a doctoral program. Directed individual readings guided by the graduate faculty.

### FREN 7960 Special Topics in French Literature (3)

May be taken for a max. of 6 hrs. of credit for the master's degree and 9 hrs. of credit for the doctorate when topics vary. Topics to be announced.

# FREN 7962 Special Topics in French Linguistics (3)

May be taken for 6 hrs. of credit for the master's degree and 9 hrs. of credit for the doctorate when topics vary. Topics to be announced.

### FREN 7970 Seminar in French Literature (3)

*May be taken for a max. of 6 hrs. of credit when topics vary.* Topics to be announced.

### FREN 7980 Seminar in French Linguistics (3)

*May be taken for a max. of 6 hrs. of credit when topics vary.* Topics to be announced.

# **FREN 8000 Thesis Research (1-12 per sem.)** *"S"/"U" grading.*

**FREN 9000 Dissertation Research (1-12 per sem.)** *"S"/"U" grading.* 

# **General Business**

# GBUS 1000 Introduction to the Study of Business (1)

Enrollment in this course is limited to students admitted to the E. J. Ourso College of Business. Introduction to the E. J. Ourso College of Business policies and resources including academic advising, majors, career alternatives, college technology and student organizations.

### GBUS 1001 Introduction to Business (3)

May not be taken by students in the E. J. Ourso College of Business. Operation of the business firm; function of the businessman; nature of economic system and private enterprise.

### **GBUS 2999 Special Topics in Business (1-3)**

May be taken for a maximum of 6 semester hrs. of credit when topics vary. Individual and group study of special topics in the field of business under the direction of a faculty member.

#### GBUS 3950 Internship in General Business (3)

Prereq.: Admission to the college, junior or senior standing, and consent of general business faculty advisor. ass/fail grading based on a written evaluation by the professional supervisor, a written report by the student, and the faculty member's evaluation. May be repeated for up to 6 hours of credit when professional experience varies. Approximately 20 hours per week in regular semester or 30 hours per week in summer session of learning experience in business under the general supervision of a faculty member and the direct supervision of an approved business executive. On-the-job experience in an approved business position.

#### GBUS 3951 Internship in Energy (3)

Prereq.: Admission to the college, junior or senior standing, and consent of energy advisor. Pass/fail grading based on a written evaluation by the professional supervisor, a written report by the student, and the energy advisor's evaluation. Approximately 100 hours of learning and practical work experience in energy ad business under the general supervision of the energy advisor and the direct supervision of an approved energy/business executive. Onthe-job experience in an approved energy/business position.

# GBUS 3999 Advanced Special Topics in Business (1-3)

May be taken for a max. of 6 semester hrs when topics vary. Individual and group study of advanced special topics in the field of business under the direction of a faculty member.

### **GBUS 4040 Entrepreneurship in China (3)**

Characteristics of the Chinese energy industry: entrepreneurs, new venture financing, innovation and creativity, franchising, family businesses, technological entrepreneurs, technological intrapreneurs, entrepreneurship education and incubators.

# Geography: Core Curriculum

# GEOG 1001 Human Geography: Americas and Europe (3)

This is a General Education course. *GEOG 1001 and GEOG 1003 need not be taken in numerical order*. Principal themes of human geography, including the spatial distributions and interactions of culture, history, economy, population and environment, with a regional emphasis on the Americas and Europe.

# GEOG 1003 Human Geography: Africa and Asia (3)

This is a General Education course. *GEOG 1001 and 1003* need not be taken in numerical order. Principal themes of

human geography, including the spatial distributions and interactions of culture, history, economy, population and environment, with a regional emphasis on Africa and Asia.

#### GEOG 2040 Geospatial Technology (3)

Introduction to concepts and applications of modern geospatial technologies to various disciplines. Discusses the collection, input, storage, analysis, and visualization of spatial and attribute data.

#### GEOG 2050 Physical Geography: The Atmosphere (3)

This is a General Education course. *May be taken for elective geology credit*. Physical principles, processes and operations in the atmosphere; world climatic realms.

# GEOG 2051 Physical Geography: Land and Water Surfaces, Plant and Animal Realms (3)

This is a General Education course. Surface elements of the earth's environment; relationships among these elements.

# GEOG 2055 Map Reading (3)

2 hrs. lecture; 2 hrs. lab. Nature and interpretation of topographic maps.

# Geography: Mapping Sciences: Cartography

# GEOG 4044 Computer Cartography (3)

No programming knowledge necessary. Introduction to selected mapping packages.

# Geography: Mapping Sciences: Remote Sensing

# GEOG 4020 Aerial Photo Interpretation and Image Processing (3)

*Credit will not be given for both this course and ANTH* 4024. Analysis and mapping of geological features, hydrological process, land forms, cultural features, natural resource, and environmental phenomena from aerial photographs and satellite images.

#### GEOG 4045 Environmental Remote Sensing (3)

*May be taken for elective geology credit.* Basic energy and matter relationships; principles of primary remote sensors; environment studied via remote sensing techniques.

# Geography: Mapping Sciences: GIS/Techniques

GEOG 3043 Crime Mapping (3) *See SOCL 4466.* 

# GEOG 4041 Field Methods in Physical Geography (3)

Methods, tools, and instruments employed in the field by physical geographers; measurement theory; tools and techniques in data collection, reduction, analysis, and presentation.

# GEOG 4042 Enterprise Geographic Information Systems (3)

Also offered as ANTH 4042. The use of vector-based GIS application software for the input, management, analysis and presentation of geospatial data. Emphasis is placed on how the GIS relates to database management systems as part of building an enterprise-wide GIS.

# GEOG 4046 Web GIS (3)

Visualizing, analyzing, and distributing spatial data via web technologies. Emphasis placed on how the technologies of web servers, geographic information system software, and database management systems interact to make mapenabled websites possible.

### GEOG 4047 Geographic Information Systems (3)

Geographic information systems used in land resource management and planning; data structures and algorithms for automated retrieval and analysis of spatial data; structuring cartographic data into spatial data; integration of remotely sensed data into geographic information systems.

# GEOG 4048 Methods of Spatial Analysis (3)

Mathematical, statistical and spatial analytical methods for handling and interpreting data related to geography.

# Geography: Human Geography: Systematic

### GEOG 2010 Human Geography (3)

[LCCN: CGRG 2013, Human Geography] Survey of patterns and processes of world's cultures and landscapes.

### GEOG 2080 Humans and the Environment (3)

Exploration of geographic concepts that underlie naturesociety relationships and human-dimensions of environmental change.

### GEOG 4073 Urban Geography (3)

Internal arrangement, external relations and locational aspects of urban places, with emphasis on U.S.; urban places identified by presence of tertiary economic activities.

# GEOG 4074 Place and Culture (3)

See ANTH 4074.

### GEOG 4077 Economic Geography (3)

Location, characteristics and relationships of primary, secondary and tertiary economic activity; measurements and theories of location of economic endeavor.

# **GEOG 4078 Environment and Development (3)**

Geographic theories and methods for analyzing relationship between environment and development.

### GEOG 4079 Geography of Religion (3)

Also offered as REL 4079. Theory and methods of analyzing the culture and movement of religious rituals and traditions over space and time.

### GEOG 4080 Historical Geography (3)

Advanced concepts and principles of historical geography.

#### GEOG 4086 Human-Environment Interactions (3)

Also offered as ANTH 4086. Cultural adaptation to difficult and distinctive environments, including mountains and highlands, the arctic, deserts, the humid tropics and grasslands; subsistence strategies, local knowledge, household economies, land use practices and resource management institutions.

### GEOG 4087 Gender, Place and Culture (3)

*Also offered as ANTH 4087 and WGS 4087.* The geographies of everyday life showing how notions of maleness and femaleness influence how we understand and relate to the world around us, from our built environment, to the places we invest with meaning, and the very ways we live, work, travel and explore

# Geography: Human Geography: Regional

### GEOG 3001 Geography of Louisiana (3)

Development and current distribution of physical and human geography of Louisiana.

# GEOG 4002 South Asian Society, Polity and Culture (3)

See INTL 4002.

## GEOG 4031 Latin America and the Caribbean (3)

Physical and cultural geography of Latin America and the Caribbean.

# GEOG 4033 Geography of Central Asia and Afghanistan (3)

Also offered as INTL 4033. Survey of the geography of Central Asia and Afghanistan; emphasis on geographic elements of the history, ecology, environment, economy and strategic importance of the region.

# GEOG 4037 Geography of China (3)

Geographic survey of natural environment, population and economy of China and its relationships to the rest of the world.

### GEOG 4051 North Africa and the Middle East (3)

*Also offered as INTL 4051.* Survey of the geography of North Africa and the Middle East; emphasis on the geographic elements of the history, ecology, economy and politics of the region.

# GEOG 4052 Geography of the United States and Canada (3)

Physical and cultural geography of the United States and Canada.

# Geography: Physical Geography: Climatology

# GEOG 3013 Meteorology (3)

Temporal and areal variations in composition and structure of the atmosphere; meteorological instruments and measurements.

# GEOG 4014 Climatology (3)

*Prereq.: GEOG 2050 or equivalent.* Climatic phenomena; methods in development of regional climatology.

# **GEOG 4015 Physical Climatology (3)**

Also offered as ENVS 4015. Prereq.: GEOG 3013 or GEOG 4014 or equivalent and MATH 1552 or equivalent. May be taken for elective geology credit. Exchanges of radiation, energy, matter and momentum between the earth's surface and the atmosphere that produce characteristic environmental conditions near the ground important to both rural and urban land uses.

# GEOG 4016 Methods of Climatological Analysis (3)

*Prereq.: GEOG 3013 or GEOG 4014 or equivalent.* Analysis and interpretation of climatological data and application to physical and human problems.

# **GEOG 4221 The Tropical Atmosphere (3)**

*Prereq.: GEOG 3013 or GEOG 4014.* Comparative analysis of the tropical and mid-latitude atmospheric circulation systems, including monsoon systems, tropical cyclones and easterly waves; elements of interannual tropical variability such as El Niño-Southern Oscillation.

# Geography: Physical Geography: Geomorphology & Coastal

### GEOG 4018 Geographical Hydrology (3)

*Prereq.: MATH 1021 or equivalent. 2 hrs. lecture; 2 hrs. lab.* Analysis of basic hydrologic processes with geographical perspective; variability of runoff and groundwater; floods and droughts; climatic and land use impacts on local and global water resources.

### GEOG 4022 Geomorphology (3)

*Prereq.:* GEOG 2051 or GEOL 1001. May be taken for elective geology credit. Basic principles underlying the study of land forms; emphasis on processes shaping the natural landscape.

### **GEOG 4024 Coastal Morphodynamics (3)**

*Prereq.: MATH 1021, MATH 1022, MATH 1023.* See OCS 4024.

# GEOG 4029 Coastal Resources and Management (3)

Introduction to coastal environments and contemporary global coastal and estuarine management.

# Geography: Physical Geography: Biogeography & Environment

# **GEOG 3070 Environmental Conservation (3)**

Factors governing human use of the earth and its resources.

# GEOG 4083 Environmental Change of the Ice Age (3)

Also offered as ANTH 4083. Prereq.: GEOG 2050 and GEOG 2051 or GEOL 1001 and GEOL 1003 or consent of the instructor. Theory of climatic variability on orbital to inter-annual time scales and the methods of reconstructing ecological and climatic variability with biological, geological and historical archives.

# **Geography: Other Courses**

# GEOG 2200 Hazards, Disasters and the Environment (3)

Exploration of the interaction processes between natural/technical hazards and society that cause disasters; introduction to the natural and technological hazards and disasters; hazards and disaster management; environmental considerations and impacts.

# GEOG 2210 Fundamentals of Emergency Management (3)

Introduction and overview of emergency management functions and processes in federal, state and local governments; roles of nonprofit and private organizations in disaster planning, response and recovery; critical management issues in effective response and recovery to natural and man made hazards.

# GEOG 4023 Coastal and Shallow-Marine Depositional Systems (3)

May be taken for elective geology credit. See GEOL 4023.

# GEOG 4061 Political Geography (3)

Political geography concerns how politics is geographical and geography is political. Topics include international relations and geopolitics, electoral geography and redistricting, the nation-state and other forms of political organization, and practices of political territorialization and bordering.

### GEOG 4090 The History of Geography (3)

*3 hrs. lecture and proseminar discussion.* Development of geography since ancient times; emphasis on the 19th and 20th centuries.

#### GEOG 4164 Deltaic Geology (3) See GEOL 4164.

## **GEOG 4200 Hazard Risk Reduction (3)**

Exploration of advanced concepts and practices in the geography of hazard risk reduction.

### GEOG 4995 Internship (1-3)

Also offered as ANTH 4995. Prereq.: Permission of instructor. Faculty supervised field study with an agency or organization whose mission is considered relevant to the emergency management system or disaster planning, response or mitigation.

#### GEOG 4997 Special Topics in Geography (3)

May be taken for a max. of 6 sem. hrs. of credit when topics vary. Permission of instructor.

# GEOG 4998 Independent Study and Research in Geography (1-6)

An honors course, GEOG 4999, is also available. Credit will not be given for this course and GEOG 4999. Prereq.: written consent of instructor. May be taken for a max. of 9 sem. hrs. of credit.

Supervised study or research on topics selected by qualified advanced students.

# GEOG 4999 HONORS: Independent Reading and Research in Geography (1-6)

Same as GEOG 4998, with special honors emphasis for qualified students. Permission of instructor. Credit will not be given for this course and GEOG 4998.

### GEOG 7074 Poetics of Place (3)

Same as ANTH 7074.

#### GEOG 7901 Introduction to Graduate Study (1)

Same as ANTH 7901. Techniques and methods of their profession for incoming graduate students.

# GEOG 7902 Introduction to Research Methods in Geography (3)

# GEOG 7906 Settlement Geography: Exploration (3)

May be taken for a max. of 9 hrs. of credit with consent of department.

### GEOG 7911 Selected Topics in Geography (3)

May be taken for a max. of 9 hrs. when topics vary. Permission of department.

#### GEOG 7917 Advanced Physical Geography (3)

May be taken for a max. of 9 hrs. of credit with consent of department.

# GEOG 7921 Research and Field Work in Geography (3-6 each)

Each course may be repeated for credit. Permission of instructor.

# GEOG 7922 Research and Field Work in Geography (3-6 each)

Prereq.: permission of instructor. Each course may be repeated for credit.

# GEOG 7923 Research and Field Work in Geography (3-6 each)

Each course may be repeated for credit. Permission of instructor.

# GEOG 7935 Quantitative Methods for Geographical Analysis (3)

*Prereq.: EXST 7003 or equivalent.* Spatial analytical methods for handling and interpreting data related to geography.

# GEOG 7936 Advanced Qualitative Research in Geography and Anthropology (3)

*Also offered as ANTH 7936.* Explores the varied tools, techniques and methodologies of qualitative inquiry. Students gain practical experience creating and working with multiple forms of qualitative data and engaging in qualitative analysis and interpretation.

#### **GEOG 7937 Geographical Literature (3)**

#### GEOG 7938 Culture History (3)

May be taken for a max. of 9 hrs. of credit with consent of department.

#### GEOG 7939 Seminar in Cultural Geography (3)

May be repeated for max. of 9 sem. hrs. credit when topics vary. Explores different theoretical, methodological and empirical approaches in cultural geography.

### **GEOG 7943 Paleoclimatology (3)**

Also offered as ANTH 7943 and GEOL 7943. Prereq.: GEOG 2050 and GEOG 2051 or GEOL 1001 and GEOL 1003 or consent of instructor. Theory and methods of reconstructing climatic variability from biological and geological proxy records as well as historical archives.

# GEOG 7945 Socioeconomic Applications of GIS (3)

*Prereq.: GEOG 4047 or equivalent.* Applications of Geographic Information Systems in business, social, economic, and public policy studies.

#### GEOG 7946 Coastal and Estuarine Resources (3)

*Prereq.: GEOG 4029 or equivalent.* Nature of coastal and estuarine resources and their perception, evaluation and exploitation.

# GEOG 7973 Advanced Geographic Information Systems (3)

*Prereq.: GEOG 4047 or equivalent.* Theory and methods of design, development, implementation and applications of geographic information systems.

# GEOG 7975 Advanced Remote Sensing Seminar (3)

Prereq.: GEOG 4045 or equivalent. May be taken for a max. of 9 sem. hrs. of credit when topics vary. Selected topics in remote sensing.

## GEOG 8000 Thesis Research (1-12 per sem.)

"S"/"U" grading. Permission of instructor.

#### GEOG 9000 Dissertation Research (1-12 per sem.)

"S"/"U" grading. Permission of instructor.

# Geology

#### **GEOL 1001 General Geology: Physical (3)**

[LCCN: CGEO 1103, Physical Geology] This is a General Education course. *An honors course, GEOL 1002, is also available. Credit will not be given for both this course and GEOL 1002 or GEOL 1111.* Earth materials and land forms; processes at work on and within the earth.

# GEOL 1002 HONORS: General Geology: Physical (3)

This is a General Education course. Same as GEOL 1001, with special honors emphasis for qualified students. Credit will not be given for both this course and GEOL 1001 or GEOL 1111.

### **GEOL 1003 General Geology: Historical (3)**

[LCCN: CGEO 1113, Historical Geology] This is a General Education course. An honors course, GEOL 1004, is also available. Prereq.: GEOL 1001 or GEOL 1111. Credit will not be given for this course and GEOL 1004. History of the earth and life on it, as deciphered from study of its rocks and fossils.

# GEOL 1004 HONORS: General Geology: Historical (3)

This is a General Education course. Same as GEOL 1003, with special honors emphasis for qualified students. Credit will not be given for this course and GEOL 1003.

# GEOL 1066 Dinosaurs, Catastrophes and Extinctions (3)

This is a General Education course. *Not for major credit for geology majors*. History of dinosaur discoveries and methods of study; dinosaurs' relationship to birds and mammals; place of dinosaurs in earth's geological history; emphasis on catastrophes and patterns of extinction.

# GEOL 1111 Geology of National Park Areas (3)

Credit will not be given for this course and either GEOL 1001 or GEOL 1002. Geological study of areas supervised by the National Park Service. Areas covered will include most of the National Parks and Monuments, and many other federally owned lands.

#### GEOL 1201 Principles of Geology I (4)

Prereq.: Credit or registration in MATH 1021, MATH 1022, MATH 1023, MATH 1550, or MATH 1551. Credit will not be given for this course and for GEOL 1001 and GEOL 1601 or GEOL 1002 and GEOL 1601. 3 hrs. lecture, 3 hrs. lab. For Geology majors and minors. Principles of physical geology with a focus on plate tectonics and on applying the mathematics to solve geolgic problems.

#### GEOL 1202 Principles of Geology II (4)

Prereq.: GEOL 1001 and GEOL 1601 or GEOL 1201 and credit or registration in MATH 1022, MATH 1023, MATH

1550 or MATH 1551. Credit will not be given for this course and GEOL 1003 and GEOL 1602 or GEOL 1004 and GEOL 1602. 3 hrs. lecture, 3 hrs. lab. For geology majors and minors. Principles of and techniques used in reconstructing Earth's history.

# GEOL 1601 Physical Geology Laboratory (1)

[LCCN: CGEO 1101, Physical Geology Lab] *Prereq.: credit or concurrent enrollment in GEOL 1001. Lab related to GEOL 1001.* Properties of minerals and rocks; practical application of geological principles, using topographic and geological maps; geological factors relating to energy exploration and environmental problems, with emphasis on south Louisiana.

#### GEOL 1602 Historical Geology Laboratory (1)

[LCCN: CGEO 1111, Historical Geology Lab] *Prereq.: GEOL 1601; credit or concurrent enrollment in GEOL 1003. Lab related to GEOL 1003.* Sedimentary rocks and environments, geobiological sequences, fossils and the historical geological record as interpreted from maps.

#### GEOL 2020 Geology and the Environment (3)

This is a General Education course. *Prereq.: GEOL 1001* or *GEOL 1111*.

Interaction between human activities and geological processes, hazards and materials; emphasis on environmental geology of Louisiana and the Gulf Coast region.

### GEOL 2061 History of the Biosphere (4)

*Prereq.*: GEOL 1202; *BIOL 1201. One or two field trips required. 3 hrs. lecture; 3 hrs. lab.* Characteristics and geologic history of selected taxa with significant fossil records; use of paleontologic data (paleobiologic, paleoenvironmental, geochemical and biostratigraphic) in geology and evolutionary studies; influence of the biosphere on Earth over geologic time.

### GEOL 2081 Mineralogy (4)

Prereq.: GEOL 1201 and credit or registration in CHEM 1202 or consent of instructor. Credit will not be given for this course and GEOL 3200. 3 hrs. lecture; 3 hrs. lab. Elementary crystallography; mineral identification; general chemical and physical properties of minerals; environments of minerals.

# GEOL 3032 Introduction to Sedimentology and Depositional Environments (4)

Prereq.: GEOL 1202; GEOL 2081 or consent of instructor. Credit will not be given for this course and GEOL 3200. One field trip and one field exercise in nearby area. 3 hrs. lecture; 3 hrs. lab. Sediment types, textures, sedimentary structures and major minerals used to understand sedimentary processes leading to different depositional environments.

# GEOL 3041 Igneous and Metamorphic Petrology (4)

*Prereq.: GEOL* 2081. *Credit will not be given for this course and GEOL* 3200. *3 hrs. lecture; 3 hrs. lab.* Classification, theoretical background and tectonic processes related to development of igneous and metamorphic rocks; and optical petrographic methods.

# GEOL 3061 Evolution of the Biosphere (4)

Prereq.: GEOL 1202; GEOL 2081; BIOL 1201. One or two field trips required. 3 hrs. lecture; 3 hrs. lab. Characteristics and geologic history of selected taxa with significant fossil records; use of paleontologic data (paleobiologic, paleoenvironmental, geochemical and biostratigraphic) in geology and evolutionary studies; influence of the biosphere on Earth over geologic time.

### GEOL 3071 Structural Geology (4)

*Prereq.: GEOL 1602; credit in MATH 1550. 2 hrs. lecture; 3 hrs. lab and a one week field-based project.* Geometric, kinematic and dynamic analysis of geologic structures and structural systems resulting from deformation; introduction to tectonics; introduction to field techniques and geologic maps; generation of geologic maps and cross-sections.

# GEOL 3200 Earth Materials for Petroleum Engineers (3)

Prereq.: GEOL 1001 and GEOL 1601, or GEOL 1002 and GEOL 1601, or GEOL 1201. Credit will not be given for this course and GEOL 2081 or GEOL 3032 or GEOL 3041. May not be taken by geology majors for credit. Introduction to the classification, occurrence and origin of rocks and rock forming minerals.

### GEOL 3666 Field Geology (6)

Offered in Su Prereq.: GEOL 3032, GEOL 3041, GEOL 3061 and GEOL 3071 or equivalent. Students planning to take this course should apply to the camp director no later than March 15. Camp and trip fees. Six weeks of field-based projects in the Rocky Mountains of Colorado, New Mexico and Wyoming; fundamentals of the study of rocks and geologic features in their natural settings.

### **GEOL 3909 Geological Research (1-3)**

Prereq.: Permission of Department required. May be repeated for a max. of 9 sem. hrs. of credit. Provides opportunities for individual research experiences under the direction of faculty. The Department's expectation is that the course provides meaningful research experiences that will enhance student learning and preparation for advanced training and not be limited to day-to-day laboratory tasks.

# GEOL 3999 Undergraduate Thesis in Geology (3)

Prereq.: GEOL 3909; consent of department. Pass-fail grading. Defense committee of three faculty members must be approved by the department. Individual research on problems in the geological sciences. Includes writing, public presentation and defense of a research thesis.

# GEOL 4002 Special Topics in Geology and Geophysics (3)

Prereq.: senior standing in geology or consent of instructor. May be taken for a max. of 9 sem. hrs. of credit when topics vary. Advanced and/or emerging topics in the geosciences.

## **GEOL 4012 Introduction to Micropaleontology (3)**

*Prereq.: GEOL 3061 or equivalent. 2 hrs. lecture; 3 hrs. lab.* Morphology, classification, stratigraphy, paleoecology and evolutionary patterns of common marine microfossils.

# GEOL 4019 Geoarchaeology (4)

Also offered as ANTH 4019. Prereq.: GEOL 1001 orGEOL 1201 or ANTH 2015 or GEOG 2051 or permission of instructor. 3 hrs. lecture plus equivalent of 3 hrs of lab per week devoted to an applied fieldwork problem. Geological, stratigraphical, geochemical and geophysical techniques employed in the study of archaeological sites and materials.

### GEOL 4020 Principles of Environmental Geochemistry (3)

*Prereq.: GEOL 2081 and MATH 1550.* Principles of equilibrium and kinetics of chemical reactions and the application of those principles to the natural environment with an emphasis on the chemistry of natural waters and environmental geochemistry.

# GEOL 4023 Coastal and Shallow-Marine Depositional Systems (3)

Also offered as GEOG 4023. Dynamics of sediment transport in coastal zones and on continental shelves; sea-level changes; morphological, sedimentary and stratigraphic attributes of coastal and shallow-marine lithosomes.

### GEOL 4035 Advanced Sedimentology (3)

*Prereq.: GEOL 3032. Students should expect to participate in field trip(s) of varying duration.* Physical sedimentary processes in non-marine and marine depositional systems, including fluvial, alluvial fan, lacustrine eolian, and carbonate and clastic marine environments; influence of tectonics, climate, and sea level on sedimentary architecture and sequences.

# GEOL 4043 Earth Materials and the Environment (3)

Prereq.: CHEM 1202, GEOL 2081 or permission of instructor. Earth materials as problems and solutions in environmental issues; physiochemical behavior of asbestiform silicates, silica, zeolites and associated health hazards; potential geological repositories for hazardous waste.

### GEOL 4044 Petroleum Geology (3)

Prereq.: GEOL 3032 or GEOL 3200 or permission of instructor.

Modern concepts of the origin, migration, entrapment and production of hydrocarbons from sedimentary basins.

# GEOL 4045 Stratigraphy (3)

*Prereq.: GEOL* 3032 or permission of instructor. The succession and age relationships of rock strata including their form, lithologic components, fossil content, geophysical and geochemical properties and their interpretation in terms of environment, mode of origin and geologic history.

# **GEOL 4060 Solid Earth Geophysics (3)**

Prereq.: PHYS 1202 or PHYS 2002, and credit or registration in GEOL 3071; or permission of instructor.

Principles and methods of geophysics applied to investigate the structures and dynamic processes of the solid earth system; emphasis on tectonic plate motions, geomagnetism, global seismology, gravity, and isostasy.

# GEOL 4062 Exploration and Environmental Geophysics (3)

*Prereq.: GEOL 3071 and MATH 1552 or permission of instructor. 2 hrs. lecture; 3 hrs. lab.* Principles and methods of acquisition, processing and interpretation of geophysical data used to investigate the shallow subsurface; seismic refraction, seismic reflection, gravity, magnetics, electrical resistivity, well logs and ground penetrating radar.

### **GEOL 4066 Plate Tectonics (3)**

*Prereq.: GEOL 3071.* Contemporary concepts of plate tectonics; geophysical observations and geological implications.

### **GEOL 4068 Reflection Seismology (3)**

Prereq.: MATH 1550 and PHYS 1202 or PHYS 2113 or PHYS 2002 or consent of instructor. 2 hrs. lecture; 3 hrs. lab. Seismic reflection techniques used to investigate shallow earth structure; waves in layered media, correlation, convolution, deconvolution and spectral analysis; interpretation of seismic record sections.

### GEOL 4081 Chemical Oceanography (3)

Also offered as OCS 4126. Prereq.: consent of instructor. 3 hrs. lecture/seminar. Controls on the mass balance and distribution of major elements, trace elements, heavy metals, dissolved gases and nutrients in estuarine and openocean systems.

#### **GEOL 4084 Geomicrobiology (3)**

Also offered as BIOL 4084. Prereq.: GEOL 3032 or BIOL 2051 or consent of instructor. Microbial effects and controls on geologic, geochemical and ecological processes; biochemical tracers and fossils of microbially mediated processes through time; introduction to biogeochemical processes.

# GEOL 4085 Geochemistry of Sediments and Natural Waters (3)

*Prereq.: GEOL 2081 and MATH 1550.* Controls on the composition of natural waters and the role of fluid-rock interactions in the geochemical evolution of sedimentary rocks, the ocean and the atmosphere; major geochemical cycles.

# GEOL 4107 Introduction to Seismology (3)

Prereq.: PHYS 1201, PHYS 2001, or PHYS 2110, MATH 1550 or MATH 1551, and GEOL 3071 or permission of the instructor. Introduction and overview of seismology, seismological concepts, intellectual frameworks, and investigation techniques; Studying seismic sources and earth structures using seismograms; Characterization and interpretation of seismograms.

## GEOL 4111 Vertebrate Paleontology (3)

*Prereq.: consent of instructor. 2 hrs. lecture; 2 hrs. lab.* Phylogenetic survey of fossil vertebrates; their origins and transitions; vertebrate taphonomy, biostratigraphy and fossil collection and preparation.

#### GEOL 4131 Basin Analysis (3)

*Prereq.:* GEOL 3071 and GEOL 3032 or GEOL 3200 or permission of instructor. Basic environment of sediment deposition; sedimentological models and their relationships within depositional basins; analysis of theoretical basin models and comparison with modern and ancient sedimentary basins.

#### GEOL 4150 Hydrology & Hydrogeology (4)

*Prereq.: GEOL 3032 and MATH 1552.* Students will be required to participate in weekend field trip(s). *3 hrs. lecture, 1 hr. recitation.* Contemporary concepts of surface and groundwater flow including contaminant transport, aquifer tests, and Darcy's law.

### GEOL 4164 Deltaic Geology (3)

Also offered as GEOG 4164. Prereq.: consent of instructor. 2 hrs. lecture; 2 hrs. lab. Processes of deltaic sedimentation and the nature of deltaic sediments; Mississippi River delta compared to other modern and ancient deltas.

#### GEOL 4165 Subsurface Geology (3)

*Prereq.: GEOL 3032 or GEOL 3071 or GEOL 3200 or* PETE 3036.

2 hrs. lecture; 3 hrs. lab. Principles and methods of exploration, analysis and interpretation using borehole data, electric logs and samples of rocks and fluids; construction of geological maps and sections showing sediment facies, geological structure, geotemperature, fluid pressure and water salinity; analysis of fluid migration, oil and gas accumulation and geothermal resources.

### GEOL 4182 Physical Hydrogeology (3)

Prereq.: grade of "C" or better in GEOL 3032, GEOL 3071, and MATH 1552 or permission of instructor. Subsurface fluid flow in geological materials; emphasis on geological controls of the origin and migration of pore water, including saline brines, in sedimentary basins; topics including crustal scale flow, petroleum migration, ore formation and subsurface flow regimes in Louisiana

# GEOL 6001 Topics in Earth Sciences for Teachers (3)

Offered in Su May be taken for a max. of 9 sem. hrs. when topics vary. Consent of instructor is required for the second and third times. Various aspects of the earth sciences for elementary, middle and high school teachers of science.

# GEOL 7044 Advanced Metamorphic Petrology (3)

*Prereq.: GEOL 3041 or equivalent. 2 hrs. lecture; 3 hrs. lab.* Facies concept, theoretical and field relations, textures and their significance.

### GEOL 7061 Sequence Stratigraphy (3)

Prereq.: introductory course in sedimentology, GEOL 3032 or equivalent. One week field trip to the southern Rocky Mountains is required. Principles of physical stratigraphy with emphasis on contemporary concepts about the interaction of tectonics, sea level and sediment supply in generating a predictable architecture of sedimentary basin fills.

### GEOL 7062 Seismic Stratigraphy (3)

*Prereq.: GEOL 3071 or equivalent.* Interpretation of seismic reflection data in terms of sedimentary facies, stratigraphic sequences and implications for local and eustatic sea-level fluctuations.

### GEOL 7081 Isotope Geochemistry (3)

*Prereq.: consent of instructor.* Stable isotope fractionation in natural systems; emphasis on oxygen, hydrogen, and carbon isotope-ratio variation in natural waters, carbonates and silicates with application to the solution of petrologic problems.

# GEOL 7115 Paleoecology (3)

*Prereq.: GEOL 3061 and GEOL 3032. 2 hrs. lecture; 2 hrs. lab; field trip.* Diversity, structure, taphonomy and evolution of fossil and modern marine assemblages; adaptations and functional morphology; organism-sediment relationships.

#### **GEOL 7132 Dynamics of Sedimentation (3)**

2 hrs. lecture; 3 hrs. lab. Fluid mechanics as applied to sedimentation, fluid-particle interactions, erosion, mechanics of sediment transport including fluid and sediment flows, deposition and the origin of primary structures, and hydrodynamic instability and soft-sediment deformation.

# GEOL 7133 Sedimentary Petrography of Carbonates (3)

2 hrs. lecture; 3 hrs. lab. Principles governing formation, deposition and diagenesis of carbonate sediments and sedimentary rocks; lab stresses textural, fabric and mineral relationship and interpretation of depositional environments and mineral paragenesis of ancient carbonate sequences.

#### GEOL 7134 Clay Mineralogy (3)

2 hrs. lecture; 3 hrs. lab/discussion. Mineralogy; geochemistry and geology of clay minerals; argillaceous sediments and rocks.

#### **GEOL 7195 Reservoir Characterization (3)**

Also offered as PETE 7195. Prereq.: GEOL 4182 or PETE 4051 or consent of instructor. 2 hrs. lecture; 2 hrs. lab. Origin, description, exploration and development of oil and gas reservoirs; topics include accommodation space, reservoir occurrence, origin of petroleum, oil and gas properties, rock properties, drilling, exploration and appraisal, reservoir flow modeling and production engineering; emphasis on integration of geology, geophysics and petroleum engineering.

# GEOL 7200 Scientific Communication and Visualization (3)

Methods for written, oral and visual communication with an emphasis on scientific approaches, analysis and presentation of scientific quantitative information.

# GEOL 7900 Special Topics in Geology and Geophysics (3)

May be taken for a max. of 12 sem. hrs. of credit when topics vary. Advanced and/or emerging topics in geology and geophysics.

# GEOL 7909 Directed Research in Geology and Geophysics (1-6)

May be taken for a max. of 6 sem. hrs. of credit when topics vary. General student-selected research topics and focused group research, including all topics in geology and geophysics.

### **GEOL 7911 Seminar in Geology: Paleontology (2)** *May be repeated for credit.*

# GEOL 7921 Departmental Seminar in Geology and Geophysics (1)

Presentations on specialized subjects of current interest in geological sciences.

# GEOL 7931 Seminar in Geology: Sedimentology (2)

*May be repeated for credit.* Fall semester: carbonate sedimentology; spring semester: clastic sedimentology and sedimentary environments.

# GEOL 7941 Seminar in Geology: Igneous and Metamorphic Petrology (2)

May be repeated for credit.

# GEOL 7943 Paleoclimatology (3)

See GEOG 7943.

# GEOL 7961 Seminar in Geology: Structural Geology (2)

May be repeated for credit.

### GEOL 7966 Field Work (1-9)

*Field work and field trips mandatory.* Collection of field data, including samples of ice, rock, water, sediment from remote location(s), generation of field maps, in association with required research projects.

### **GEOL 7971 Seminar in Tectonics (3)**

May be taken for a max. of 9 sem. hrs. of credit when topics vary. Plate tectonics, diapirism, isostasy and the tectonics of specific areas.

## **GEOL 7972 Seminar in Geophysics (3)**

May be taken for a max. of 9 sem. hrs. of credit when topics vary. Structure and composition of the mantle; physical processes at ridges, trenches and transform faults; dynamics of plate interiors; intraplate stress; and thermal histories of the earth and other terrestrial planets; physics of rock magnetism; and hydrodynamics of sedimentary basins.

### **GEOL 7981 Seminar in Geochemistry (2)**

*Prereq.: consent of instructor. May be taken for a max. of 6 hrs. of credit.* Mineralogy, paragenesis, geochemistry and natural occurrence of authigenic silica in sediments; other topics such as hydro geochemistry, isotope geochemistry and the geochemistry of carbonates.

# GEOL 8000 Thesis Research (1-12 per sem.) "S"/"U" grading.

**GEOL 9000 Dissertation Research (1-12 per sem.)** *"S"/"U" grading.* 

# Greek

#### **GREK 1001 Elementary Greek (4)**

This is a General Education course. Introduction to the core vocabulary and grammar for reading and writing Ancient Greek; basic readings in Classical and Biblical Greek.

#### **GREK 2051 Intermediate Greek (4)**

This is a General Education course. *Prereq.: GREK 1001 or equivalent.* Completion of core vocabulary and grammar for reading and writing Ancient Greek; basic readings in Classical and Biblical Greek.

#### **GREK 2103 Intermediate Greek Prose (3)**

This is a General Education course. *Prereq.: GREK 2051* or equivalent. Application of grammar, vocabulary and concepts from the first year of Greek. Readings in basic ancient Greek prose.

#### GREK 2153 Homer (3)

This is a General Education course. *Prereq.: GREK 2103 or equivalent.* Readings from the Iliad or Odyssey; selected passages from various books; some attention to aesthetic and historical problems.

### GREK 2155 Greek Drama (3)

This is a General Education course. *Prereq.: GREK 2103.* Readings in Greek drama including a representative play of Sophocles or Euripides.

#### **GREK 2156 New Testament (3)**

This is a General Education course. *Prereq.: GREK 2103 or equivalent.* Selected readings from the New Testament.

# GREK 2165 Plato's Dialogues (3)

This is a General Education course. *Prereq.: GREK 2103 or equivalent.* Readings from Plato's dialogues.

# **GREK 2166 Attic Oratory (3)**

This is a General Education course. *Prereq.: GREK 2103* or equivalent. Readings from Attic orators such as Demonsthenes, Andocides, Antiphon, Lysias.

### **GREK 4023 Special Topics in Greek Poetry (3)**

*May be taken for a max. of 6 hrs. of credit.* Readings and studies in one or more of the following: Homer, Hesiod, Pindar, Greek lyric poetry, Aeschylus, Sophocles, Euripides, Aristophanes.

### **GREK 4024 Special Topics in Greek Prose (3)**

*May be taken for a max. of 6 hrs. of credit.* Readings and studies in one or more of the following: Herodotus, Thucydides, the Pre-Socratics, the orators, Plato, Aristotle.

#### **GREK 4915 Independent Work (1-3)**

May be taken for a max. of 6 sem. hrs. of credit. Permission of department required. Readings in Greek literature directed by a senior faculty member.

# German

### **GERM 1101 Elementary German (4)**

[LCCN:CGRM 1014, Elementary German I] This is a General Education course. *Native speakers of German will not receive credit for this course*. Basic lexicon and structures of German; emphasis on communicative language use; supplementary work in language and computer laboratories.

### **GERM 1102 Elementary German (4)**

[LCCN: CGRM 1024, Elementary German II] This is a General Education course. *Prereq.: GERM 1101 or equivalent. Continuation of GERM 1101. Native speakers of German will not receive credit for this course.* Basic lexicon and structures of German; emphasis on communicative language use. Supplementary work in language and computer laboratories.

### **GERM 2001 German for Travelers (3)**

German for travelers is not applicable towards a major or minor in German and does not fulfill foreign language requirements for undergraduates. The course introduces basic communication patterns, focuses on practical everyday vocabulary through exercises role-playing and situational activities.

#### **GERM 2075 German Civilization (3)**

This is a General Education course. *Also offered as HIST 2075. Knowledge of German not required.* Development of the modern German states from early Germanic times; art, literature, music and philosophy in an historical context.

#### **GERM 2101 Intermediate German (3)**

[LCCN: CGRM 2013, Intermediate German I] This is a General Education course. *Prereq.: GERM 1102 or equivalent. Native speakers of German will not receive credit for this course.* Reading, conversation, composition; review of lexicon and structure; supplementary work in language and computer laboratories.

## **GERM 2102 Intermediate German (3)**

[LCCN: CGRM 2023, Intermediate German II] This is a General Education course. *Prereq.: GERM 2101 or equivalent. Continuation of GERM 2101. Native speakers of German will not receive credit for this course.* Reading, conversation, composition; emphasis on lexicon of spoken German; supplementary work in language and computer laboratories.

### **GERM 2155 Readings in German Literature (3)**

This is a General Education course. *Prereq.: GERM 2102* or equivalent. Native speakers of German will not receive credit for this course. Analysis of literary texts; expansion of lexicon, comprehension and composition skills.

#### GERM 3060 German for Business (3)

*Prereq.: GERM 2102 or equivalent.* Introduction to German in a business environment: focus on linguistic structures and vocabulary, forms of business communication, reading of business text and social customs.

#### GERM 3061 German Discourse (3)

*Prereq.: GERM 2102.* Intensive practice in listening comprehension, oral and written communication; special problems in German structure; thematic treatment of contemporary issues in German speaking countries.

# GERM 3082 Survey of German Literature and Culture: 1700-1830 (3)

*Prereq.: GERM 2155 or equivalent.* Readings from, and an overview of, the Enlightment, Storm and Stress, Weimer Classicism and Romanticism.

# GERM 3083 Survey of German Literature and Culture: 1830-1890 (3)

*Prereq.: GERM 2155 or equivalent.* Readings from, and a historical overview of, Biedermeier/Vormarz, Realism and Naturalism.

# **GERM 3084 Survey of German Literature and Culture: 1890-to the Present (3)**

*Prereq.: GERM 2155 or equivalent.* Readings from, and a historical overview of, Expressionism, New Objectivity, the Group 47, GDR literature and Post-Modernism.

#### **GERM 3090 Friedrich Nietzsche (3)**

Also offered as PHIL 3090. Knowledge of German not required. Major works of Nietzsche studied in the context of the three periods of productivity and evolution of his thought.

#### **GERM 3091 Special Topics in German Literature** in Translation (3)

May be taken for a max. of 6 hrs. of credit when topics vary. Knowledge of German not required.

### GERM 4005 German for Reading Knowledge (5)

Undergraduates may enroll on a Pass-fail basis only. Specialized course intended to satisfy departmental foreign language reading requirement for graduate students. This course will not count toward a graduate degree. Does not count toward satisfying foreign language requirements for undergraduates, although hours may count toward baccalaureate. Credit will not be given for both this course and introductory German courses.

### GERM 4031 German Poetry (3)

Study of German poetic expression.

# GERM 4043 Special Topics in 19th Century German Literature and Culture (3)

May be taken for a max. of 6 hrs. of credit when topics vary.

### GERM 4044 Special Topics in 20th Century German Literature and Culture (3)

May be taken for a max. of 6 hrs. of credit when topics vary.

#### GERM 4045 Special Topics in Contemporary German Literature and Culture (3)

May be taken for a max. of 6 hrs. of credit when topics vary.

### GERM 4046 German Film (3)

*Knowledge of German not required.* German film in its socio-historic contexts with some attention to cinematic technique.

### GERM 4062 Advanced German Discourse (3)

*Prereq.: GERM 3061 or equivalent.* Continued intensive practice in complex grammar and structures. Analysis and synthesis of authentic German material with focus on reading and writing.

# GERM 4091 Special Topics in German Literature and Culture in Translation (3)

May be taken for a max. of 6 hrs. of credit when topics vary. Knowledge of German not required.

#### GERM 4915 Independent Work (1-3)

May be taken for a max. of 3 sem. hrs. credit. Permission of department required.

### Hebrew

#### HEBR 1001 Beginning Hebrew (4)

This is a General Education course. Also offered as REL 1001. This course counts toward the fulfillment of a foreign language requirement only when taken under the HEBR rubric. The alphabet, basic grammar and vocabulary of classical Hebrew; simple prose passages from the Bible.

#### HEBR 1002 Beginning Hebrew (4)

This is a General Education course. Also offered as REL 1002. Prereq.: HEBR 1001/REL 1001 or equivalent. This course will count toward the fulfillment of a foreign language requirement only when taken under the HEBR rubric. Basic grammar and vocabulary of classical Hebrew; simple prose readings from the Bible.

### HEBR 2003 Intermediate Hebrew (4)

This is a General Education course. Also offered as REL 2003. Prereq.: HEBR 1002/REL 1002 or equivalent. This course counts toward the fulfillment of a foreign language requirement only when taken under the HEBR rubric. Biblical narratives; details of syntax; development of vocabulary.

#### HEBR 2004 Intermediate Hebrew (4)

This is a General Education course. *Also offered as REL* 2004. *Prereq.: HEBR 2003/REL 2003 or equivalent. This course counts toward the fulfillment of a foreign language requirement only when taken under the HEBR rubric.* Biblical narratives and poetry; details of syntax; development of vocabulary; textual criticism.

# History

### HIST 1001 Western Civilization to 1500 (3)

[LCCN: CHIS 1013, Western Civilization I] This is a General Education course. An honors course, HIST 1002, is also available. Credit will not be given for this course and HIST 1002. Ideas, trends and institutions in western civilization from earliest times to the Reformation.

# HIST 1002 HONORS: Western Civilization to 1500 (3)

This is a General Education course. *Same as HIST 1001, with special honors emphasis for qualified students. Credit will not be given for this course and HIST 1001.* Supervised reading, discussion, research and writing.

### HIST 1003 Western Civilization Since 1500 (3)

[LCCN: CHIS 1023, Western Civilization II] This is a General Education course. *An honors course, HIST 1004, is also available. Credit will not be given for this course and HIST 1004*, Development of western civilization from the Reformation to the present.

# HIST 1004 HONORS: Western Civilization Since 1500 (3)

This is a General Education course. *Same as HIST 1003, with special honors emphasis for qualified students. Credit will not be given for this course and HIST 1003.* Supervised reading, discussion, research and writing.

#### HIST 1005 World History to 1500 (3)

[LCCN: CHIS 1113, World Civilization I] This is a General Education course. Developments and interactions among Asian, African, European, American and Oceanian cultures in the pre-modern age.

### HIST 1007 World History Since 1500 (3)

[LCCN: CHIS 1123, World Civilization II] This is a General Education course. Interactions among Asian, Middle Eastern, African, European and American cultures in the modern era.

#### HIST 2012 Britain from 1689 to the Present (3)

This is a General Education course.

# HIST 2014 Goddesses to Witches: Women in Europe 500 BCE -1700 CE (3)

This is a General Education course. Womens' lives and ideas about gender from Greece and Rome to the beginning of the modern era.

#### HIST 2020 Medieval Europe (3)

This is a General Education course. Social, cultural, religious and political history of medieval Europe from the reign of Constantine in the fourth century to the fall of Constantinople in 1453.

#### HIST 2022 Modern Europe (3)

This is a General Education course. Political, economic and social developments and diplomacy from 1848 to the present.

#### HIST 2023 The World Since 1960 (3)

Major events since 1960 in the U.S., U.S.S.R., and selected nations of Europe, the Middle East, Latin America, Africa and Asia; emphasis on social, economic, political and national security issues.

#### HIST 2025 Early Modern Europe 3

This is a General Education course. Social, cultural, religious and political history of Europe from the Renaissance to the French Revolution.

## HIST 2030 War, Mass Violence, and Genocide (3)

This is a General Education course. Selected cases of genocide, ethnic cleansing, and other forms of mass violence against civilians in world history studied in the context of warfare or postwar settlements.

### HIST 2035 Home Fronts (3)

This is a General Education course. Comparative Study of the social, cultural, political and economic impact of war.

# HIST 2049 Violence in the American West 3

This is a General Education course. Encounters between cultures west of the Mississippi River and the significance of the frontier in American History.

#### HIST 2055 The United States to 1865 (3)

[LCCN: CHIS 2013, American History I] This is a General Education course. An honors course, HIST 2056, is also available. Credit will not be given for this course and HIST 2056.

#### HIST 2056 HONORS: The United States to 1865 (3)

This is a General Education course. *Same as HIST 2055, with special honors emphasis for qualified students. Credit will not be given for this course and HIST 2055.* 

# HIST 2057 The United States from 1865 to the Present (3)

[LCCN: CHIS 2023, American History II] This is a General Education course. *An honors course, HIST 2058, is also available. Credit will not be given for this course and HIST 2058.* 

# HIST 2058 HONORS: The United States from 1865 to the Present (3)

This is a General Education course. *Same as HIST 2057, with special honors emphasis for qualified students. Credit will not be given for this course and HIST 2057.* 

# HIST 2061 African American History (3)

This is a General Education course. Social, cultural and economic role of African Americans in the U.S. from 1619 to the present.

# HIST 2065 History of Popular Culture in the United States (3)

This is a General Education course. The history of popular culture in the United States from the mid-nineteenth century to the present.

### HIST 2075 German Civilization (3)

This is a General Education course. See GERM 2075.

# HIST 2085 Colonial Latin America (3)

This is a General Education course. Colonial period emphasizing the European background, explorations, political and economic systems and wars of independence.

# HIST 2096 East Asian Civilization Since 1800 (3)

This is a General Education course. Modern Asian civilization; emphasis on contact with the West and the rise of nationalism and communism.

### HIST 2100 Introduction to Asia (3)

This is a General Education course. Social, cultural, and religious history of eastern civilizations from origins to the present.

### HIST 2125 The History of Premodern Cities (3)

This is a General Education course. Social, cultural, and political history of cities before 1500.

# HIST 2126 Cities in European History since 1500 (3)

This is a General Education course. Cities in European social, cultural, and economic history since 1500.

### HIST 2160 Contemporary Middle East (3)

This is a General Education course. Social and political history of the Middle East, from the late eighteenth century to the present.

# HIST 2184 Introduction to African Civilizations (3)

This is a General Education course. Social, cultural, religious and political history of Africa from pre-historic period to 1800.

## HIST 2185 African Colonialism 1800-1960 (3)

This is a General Education course. Political, economic and social developments in Africa from 1880 to 1960.

### HIST 2186 Post-Colonial Africa (3)

This is a General Education course. Major events in the history of Africa since 1960 with emphasis on social, economic, political and cultural issues.

# HIST 2190 Modern South Asia 3

This is a General Education course. Social and political history of South Asia, covering the establishment of British colonialism in India, to the postcolonial era of independent nation-states of India, Pakistan and Bangladesh.

# HIST 2196 Topics in European History (3)

*Prereq.: Consent of department. May be taken for a max. of 6 sem. hrs. of credit when topics vary.* 

# HIST 2197 Topics in U.S. History (3)

*Prereq.: Consent of department. May be taken for a max. of 6 sem. hrs. of credit when topics vary.* 

# HIST 2198 Topics in World History: Asia, Africa, or Latin America (3)

*Prereq.: Consent of department. May be taken for a max. of 6 sem. hrs. of credit when topics vary.* 

# HIST 2199 Topics in Comparative History (3)

Prereq.: Consent of department. May be taken for a max.of 6 sem. hrs. of credit when topics vary.

# HIST 3001 History and the Social Sciences I (1)

*Prereq.: EDCI 2001. Concurrent enrollment in EDCI 3001. Supervised tutorial experience in local middle or high schools.* Introduction to the role of the social sciences in the study of history.

# HIST 3002 History and the Social Sciences II (1)

Prereq.: EDCI 3001 and HIST 3001. Concurrent enrollment in EDCI 3136.

*3 hrs. lab/field experiences in multicultural settings.* The role of the social sciences in the study of history; course will assist student in the teaching of social studies to small groups in middle and high schools.

### HIST 3071 Louisiana (3)

[LCCN: CHIS 2033, Louisiana History] Political, economic, social and cultural development.

# HIST 3117 Undergraduate Proseminar in World History (3)

Prereq.: consent of instructor. May be taken for a max. of 9 hrs. of credit when topics vary. Open to students with at least 6 sem. hrs. of credit in history and with an overall 3.00 GPA. Supervised reading and research in an assigned field of historical study.

# HIST 3118 Undergraduate Proseminar in European History (3)

Prereq.: consent of instructor. May be taken for a max. of 9 hrs. of credit when topics vary. Open to students with at least 6 sem. hrs. of credit in history and with an overall 3.00 GPA. Supervised reading and research in an assigned field of historical study.

# HIST 3119 Undergraduate Proseminar in United States History (3)

Prereq.: consent of instructor. May be taken for a max. of 9 hrs. of credit when topics vary. Open to students with at least 6 sem. hrs. of credit in history and with an overall 3.00 GPA. Supervised reading and research in an assigned field of historical study.

# HIST 4001 Greece of the City State (3)

Political, social and cultural evolution of the Greek world from the Bronze Age to the foundation of the Macedonian Empire of Alexander the Great; attention to growth of democratic institutions.

# HIST 4003 The Roman Republic (3)

The Roman state, culture and society from the origin of the city to the dictatorship of Julius Caesar.

### HIST 4004 Rome of the Caesars (3)

The growth of absolute government, spread of Christianity and other political, cultural, and social movements from the establishment of the Principate to the fall of the Western Empire.

# HIST 4007 The Early Middle Ages, 300-1000 (3)

History of Europe from Constantine the Great to the end of the Carolingians; development of medieval society and institutions.

### HIST 4008 The Later Middle Ages, 1000-1500 (3)

History of Europe from the Investiture Controversy to the voyages of Columbus; developments in social, cultural and political institutions.

# HIST 4009 The Renaissance (3)

Italian society and thought from Dante to Machiavelli, with emphasis on the medieval foundations of Renaissance culture; northern Europe from the Hundred Years War to the Reformation, with emphasis on political and economic development.

# HIST 4011 The Age of the Reformation (3)

Also offered as REL 4011. Sixteenth century Europe with emphasis on Protestant and Catholic reform movements.

# HIST 4012 History of Modern Christian Thought (3)

See REL 4012.

# HIST 4013 Women in Early Modern Europe (3)

Major problems in the history of women in Europe during the period 1400-1700 with particular emphasis on the Renaissance and Reformation.

### HIST 4016 19th Century Europe (3)

The period 1815-1870.

### HIST 4017 20th Century Europe (3)

Survey of 20th century European history; emphasis on the role of total war in social, political and cultural change and the impact of modern nationalist ideologies.

# HIST 4021 France Before 1770 (3)

French society and politics in the early modern through Revolutionary eras.

## HIST 4022 France since 1770 (3)

Cultural, political, economic, social and intellectual survey of France from the pre-revolution to the present.

# HIST 4023 Spain since 1469 (3)

Political, economic and social development from the marriage of Ferdinand and Isabella to the present.

### HIST 4024 The Dutch Republic and Empire: 1500-1800 (3)

Political, economic, social and cultural history of one of the great powers of early modern Europe; emphasis on the Golden Age of Rembrant and Vermeer.

### HIST 4026 20th Century Germany (3)

The states that have existed in Germany since 1890; the Wilhelminian Empire; the Weimar Republic; the Third Reich; and the Germany of today.

# HIST 4028 The First World War (3)

The First World War, 1914-1918, including controversies regarding its origin and aftermath.

### HIST 4030 Eastern Europe: 1914-Present (3)

Emphasis on the independent nation-states after World War I, impact of totalitarianism and the current liberalization.

## HIST 4031 The Balkans: 1453-1878 (3)

Origins of the Balkan peoples, development of the Ottoman Empire and rise of the autonomous Balkan nation-states.

# HIST 4032 The Balkans: 1879-Present (3)

Events leading up to and including World War I, problems of the inter-war period, World War II and rise and decline of Communism in Southeastern Europe.

### HIST 4034 Russia Since 1861 (3)

Reaction and reform from 1861 to 1905; failure of parliamentary democracy amid war and revolution; Leninism and Stalinism; relaxation of totalitarian rule since Stalin's death.

# HIST 4043 Tudor England (3)

Political, economic and cultural history of 16th century England.

### HIST 4044 Stuart England (3)

Period of transition from kings who would be absolutist, through the crisis of civil wars, to the beginnings of parliamentary dominance.

### HIST 4046 19th Century Britain (3)

Emphasis on the acquisition of Empire, emergence of industrial society, and the rise of Victorianism between 1780 and 1900.

# HIST 4047 20th Century Britain (3)

Intellectual, political, social, and economic developments since 1900, including the experience of total war, construction of the welfare state, imperial decline and the significance of Thatcherism.

#### HIST 4048 Modern Irish History: 1600-Present (3)

Development of communities and conflicts in Ireland from the Tudors to the European community; emphasis on cultural, political and military affairs.

# HIST 4049 The British Empire and Commonwealth (3)

British Empire and development of the British Commonwealth of Nations.

### HIST 4050 British Colonialism in South Asia (3)

Political, economic and cultural history of the British Empire in South Asia from the founding of the East India Company in 1600 to the end of the British imperial role in 1947.

## HIST 4051 Colonial America: 1607-1763 (3)

Political, economic, cultural and military developments in the 13 colonies.

# HIST 4052 The American Revolution, 1763-1789 (3)

Political, intellectual, economic and military developments in the formation of a permanent American union.

# HIST 4053 The Age of Jefferson and Hamilton: 1789-1820 (3)

Implementation of the Constitution, adoption of the Bill of Rights, formation of a political party system and economic and social change.

#### HIST 4054 The Age of Jackson: 1820-1860 (3)

Examination of democratization, economic transformation, party development, the reform movement, slavery and the sectional crisis.

### HIST 4055 Civil War (3)

Secession; social and economic conditions, principal military campaigns.

### HIST 4059 The American Teens and Twenties (3)

From the inaugural of Woodrow Wilson to the Crash of 1929; Wilson and reform at home and revolution abroad; the Great War and its impact; the Jazz Age, its tension and its collapse.

#### HIST 4060 The Age of Roosevelt (3)

From the inaugural of FDR to the surrender of Japan: the Great Depression and the New Deal; the thirties' search for an American culture; the road to Pearl Harbor; America in World War II, at home and abroad.

# HIST 4064 Diplomatic History of the United States, 1914 to the Present (3)

Interpretations of American foreign policy in the 20th century; emphasis on public opinion and relationship of business investment to foreign policy.

#### HIST 4065 History of Contemporary America (3)

History of America since 1945, focusing on domestic affairs.

### HIST 4066 Military History of the United States (3)

Military policy and campaigns, war economy and organization of the armed forces.

### HIST 4071 The Antebellum South (3)

Economic, social, intellectual and political development of the South to 1860.

### HIST 4072 The New South (3)

Political, economic, social and intellectual history of the South since 1877.

#### HIST 4073 Louisiana to 1815 (3)

Political, economic and social-development of early Louisiana.

#### HIST 4075 American Economic History to 1860 (3)

Also offered as ECON 4075. American economic growth and development from the colonial period to 1860, including the railroad, slavery, technology and nature of the industrial revolution; findings and method of the "new" or quantitative economic history.

# HIST 4076 American Economic History: 1860 to the Present (3)

Also offered as ECON 4076. American economic growth and development from 1860 to the present; economic impact of the Civil War, technological change, mechanization of agriculture, railroads, automobiles, war, the Great Depression and multinational corporations; findings and method of the "new" or quantitative economic history.

#### HIST 4077 American Popular Culture (3)

Examination of popular culture forms from 19th-century vaudeville to today's music videos; emphasis on development of mass media.

#### HIST 4078 Asian-American History (3)

History of Asian peoples in the United States; topics including immigration, community development, cultural conflict, racism and stereotypes.

### HIST 4079 Women in American History (3)

Survey of political, social, economic and cultural development of American women from colonial times to present; topics include nineteenth century women's rights movement, woman suffrage, women in civil rights movement, birth control, the modern feminist movement and southern women.

# HIST 4080 Citizens and Aliens: U.S. Immigration History 3

How immigrant families have shaped, and been shaped by, American politics and culture.

## HIST 4081 The Caribbean: 1492-1830 (3)

Nature of and changes in economic and political institutions after European colonization, international conflicts, and abolition of slavery, primarily in the Greater and Lesser Antilles.

## HIST 4083 Mexico: The National Period (3)

Political, economic and social development since Independence.

# HIST 4084 West Africa to 1800 (3)

The geography, ethnicity, social, economic and political development of West Africa from the prehistoric period to 1800.

# HIST 4085 West Africa from 1800 (3)

The rise of Islamic orthodoxy, the role of imperialism, the rise of African nationalism and other themes in the history of West Africa since 1800.

# HIST 4088 Atlantic History: ca. 1300-1888 (3)

Introduction to the historical relations between Europe, Africa and the Americas, 1300 to 1888, with particular attention to the roles of African peoples in the formation of the "Atlantic World."

## HIST 4091 China to 1600 (3)

History and civilization, including a survey of religion and philosophy, language and literature, art and archaeology and popular culture.

# HIST 4092 China since 1600 (3)

Western impact on civilization and the processes of revolution and modernization during the past century.

### HIST 4093 Pre-Modern Japan (3)

Political and cultural history and civilization from the beginnings to the close of the Japanese middle ages.

### HIST 4094 Modern Japan (3)

From 1600 to the present; emphasis on historical and cultural roots of Japan's modernization in the late 19th century and quest for empire in the 20th century; cultural and intellectual developments in modern Japan.

### HIST 4096 The Modern Middle East (3)

Also offered as REL 4096 and INTL 4096. Major problems of the Middle East and North Africa in the modern period; internal Arab social, economic and intellectual developments; Muslim responses to European colonialism; modern Arab nationalism and political trends; Islamic reformist and revivalist movements; problem of Palestine.

### HIST 4097 History of South Asia (3)

Social, political, economic and cultural evolution of South Asia from the Bronze Age to the creation of India and Pakistan in 1947.

# HIST 4106 Premodern Sport, Spectacle, and Entertainment 3

The course explores sport, spectacle, and entertainment primarily in the ancient Roman and Medieval period of European history. It explores the role of sport, entertianment, and spectacle in the politics, society, and culture of the premodern world.

# HIST 4109 HONORS: Proseminar (3)

Open to qualified honors students having 12 hrs. credit in history and consent of instructor. Candidates for the honors degree in history will select an honors thesis before the end of the semester. Supervised reading in an assigned field of historical study; discussion of historical methods and research.

# HIST 4112 Modern European Intellectual History: the Enlightenment to 1850 (3)

Modern thought in cultural, social, political contexts from Voltaire to Marx.

# HIST 4113 Modern European Intellectual History Since 1850 (3)

European thought affecting society in the industrial age; realism, psychoanalysis, existentialism, the information explosion.

#### HIST 4125 History of Ancient Israel (3) See REL 4125.

### HIST 4130 World War II (3)

Global crisis of the 1930s; Axis and Allied strategies; major military campaigns; great power diplomacy; life on the home-fronts; the Holocaust; espionage and resistance; the experience of combat; social, political and scientific consequences.

# HIST 4140 The Vietnam War (3)

French colonial rule and Vietnamese nationalism; Ho Chi Minh and the war against the French (1946-54); the National Liberation Front (Vietcong); process of American involvement and disengagement; counter-insurgency and the air war; anti-war movement in the United States; reasons for failure of American policy; Vietnam since 1975; lessons and legacies for the U.S.

# HIST 4151 Historical Archaeology (3) See ANTH 4018.

# HIST 4161 Religion in the United States (3)

*Also offered as REL 4161.* From the colonial period to the present; relation between changing religious beliefs and behavior of Americans and political, social, economic and intellectual developments; Puritanism, revivalism, response to Darwinian evolution, social gospel and civil religion.

### HIST 4191 Religions of China and Japan (3)

*Also offered as REL 4191.* Major religious traditions of East Asia; Confucianism, Taoism, Mahayana Buddhism, Shinto and Chinese and Japanese folk religion; religion in the context of Chinese and Japanese cultural history.

# HIST 4195 Special Studies in World History (3)

Prereq.: consent of department. May be repeated for credit when topics vary.

#### HIST 4196 Special Studies in European History (3)

*Prereq.: consent of department. May be taken for a maximum of 9 semester hours of credit when topics vary.* 

# HIST 4197 Special Studies in United States History (3)

*Prereq.: consent of department. May be repeated for credit when topics vary.* 

#### HIST 4403 History and the Social Sciences III (1)

*Prereq.: HIST 3002 and EDCI 3136; concurrent enrollment in EDCI 4003.* The role of social sciences in the study of history; course will assist students in the teaching of social studies to full classes of middle and high schools.

# HIST 4404 Seminar in History and the Social Sciences (3)

*Prereq.: EDCI 4003 and HIST 4403; concurrent enrollment in EDCI 4004 and EDCI 4005.* How history and the social sciences view issues of importance in the contemporary world; course will assist students who are enrolled in student teaching.

#### HIST 4505 The Rise of Christianity (3)

See REL 4505.

**HIST 4507 Topics in the History of Christianity (3)** *See REL 4507.* 

#### HIST 4901 Independent Study (3)

*Prereq.: open to advanced students of high academic standing by consent of department.* Reading and research on selected topics.

### HIST 4902 Independent Study (3)

*Prereq.: open to advanced students of high academic standing by consent of department.* Reading and research on selected topics.

#### HIST 7902 Independent Study in History (3)

May be taken for a max. of 9 sem. hrs. of credit.

# HIST 7904 American Historiography and Criticism (3)

American historical writing from the colonial period to the present.

#### HIST 7908 Introduction to Historical Research (3)

General methods of and approaches to historical research and writing in European and American history, including theories, current approaches, problems and debates.

# HIST 7909 Research Seminar in European History (3)

Sources, bibliography; reports on original research.

HIST 7917 Reading Seminar in Early Modern Europe (3)

# HIST 7922 Reading Seminar in European History to 1650 (3)

May be taken for a max. of 9 sem. hrs. of credit when topics vary.

# HIST 7923 Reading Seminar in European History from 1500 (3)

May be taken for a max. of 9 sem. hrs. of credit when topics vary.

#### HIST 7930 Reading Seminar in British History (3)

May be taken for a max. of 6 sem. hrs. of credit when topics vary.

# HIST 7951 Reading Seminar in American History, 1607 to 1815 (3)

HIST 7952 Reading Seminar in American History, 1815-1890 (3) *Prereq.: HIST 7951.* 

HIST 7956 Reading Seminar in American History from 1890 to the Present (3)

# HIST 7957 Research Seminar in American History (3)

Introduction to research methods, sources and bibliography; reports on original research.

# HIST 7958 Research Seminar: Special Topics in American History (3)

May be taken for a max. of 6 sem. hrs. of credit when topics vary. Reports on original research.

# HIST 7959 Reading Seminar: Special Topics in American History (3)

May be taken for a max. of 9 sem. hrs. of credit when topics vary.

# HIST 7970 Reading Seminar in Comparative History (3)

May be taken for a max. of 6 sem. hrs. of credit when topics vary. Sources and bibliography; reports on original research.

### HIST 7975 Seminar: Special Studies in History (3)

May be taken for a max. of 9 hrs. of credit when topics vary. A reading and research seminar. Topic and emphasis will vary.

HIST 8000 Thesis Research (1-12 per sem.) "S"/"U" grading.

HIST 9000 Dissertation Research (1-12 per sem.) "S"/"U" grading.

# Honors

#### HNRS 1000 Honors Foundations (1)

*Introduction to Honors at LSU*. Orientation to four-year Honors program and Honors College community includes: service, research, leadership and cultural events; strategies for academic and personal success.

### HNRS 1007 Introduction to Life Sciences (4)

This is a General Education course. Not open to students who have had BIOL 1001, BIOL 1002, BIOL 1201, BIOL 1202, BIOL 1207, BIOL 1208, BIOL 1209 or BIOL 1503. 3 hrs. lecture; 3 hrs. lab. A basic course, organized in accordance with the principle of organic evolution, emphasizing the chemical basis of life and cell biology.

#### HNRS 1008 Introduction to the Life Sciences (4)

This is a General Education course. Not open to students who have had BIOL 1001, BIOL 1002, BIOL 1201, BIOL 1202, BIOL 1207, BIOL 1208, BIOL 1209 or BIOL 1503. Continuation of HNRS 1007. 3 hrs. lecture; 3 hrs. lab. A basic course, organized in accordance with the principle of organic evolution, emphasizing phylogeny, morphology, function of multicellular organisms and people's relation to their environment.

#### HNRS 1035 Life Science Seminar (3)

This is a General Education course. *May be taken for a max. of 6 hrs. credit when topics vary. For non-science majors only.* Special topics in the Life Sciences.

#### HNRS 1036 Physical Science Seminar (3)

This is a General Education course. *May be taken for a max. of 6 hrs. credit when topics vary. For non-science majors only.* Special topics in the Physical Sciences.

### HNRS 2000 Critical Analysis (3)

This is a General Education course. *Course for first-year Honors College students.* Introduction to various practices of academic discourse and research methods. Interdisciplinary approach to a specific topic.

### HNRS 2012 The 19th Century (3)

This is a General Education course. Perspectives fundamental to 19th century culture; relevant works of literature, philosophy, art, science.

#### HNRS 2013 The 20th Century (3)

This is a General Education course. *May be taken for a max. of 6 hrs. of credit.* Selected themes in 20th century civilization.

#### HNRS 2020 Contemporary Studies (3)

This is a General Education course. *May be taken for a max. of 6 hrs. of credit.* Selected themes in contemporary civilization.

# HNRS 2021 Colloquium in the Arts (3)

This is a General Education course. *May be taken for a max. of 6 hrs. of credit.* Art forms and their cultural significance; particular themes involving examination of art works.

#### HNRS 2030 Humanities Colloquium (3)

This is a General Education Course. *May be taken for a max. of 6 hrs. of credit when topics vary.* Selected themes and materials in literature, philosophy, history and art.

#### HNRS 2033 Social Science Colloquium (3)

This is a General Education Course. *May be taken for a max. of 6 hrs. of credit when topics vary.* Topics of significance from the standpoint of various social sciences.

# HNRS 2041 Classical Traditions: The Mediterranean World (4)

This is a General Education course. 2 hrs. lecture, 2 hrs. seminar. The civilizations of archaic and classical Greece, Rome, late antiquity and the Middle Ages. Includes literature, history, philosophy, religion, government and fine arts.

# HNRS 2042 Modern Traditions: Europe and the West (4)

This is a General Education course. *2 hrs. lecture, 2 hrs. seminar*. European civilization from the Renaissance to the Modern. Includes literature, history, philosophy, religion, government and fine arts.

#### HNRS 3000 Research Methodologies (3)

Honors introduction to undergraduate research methods. Theory, ethics, networking, proposal preparation, data collection and presentation of findings specific to student's discipline; disciplinary emphasis varies by section.

## HNRS 3010 Leaders and Scholarship (3)

Analysis of classical and modern foundations and principles of leadership. Practice in scholarship essay writing, interviewing, debate and critical thinking. Intended for national and international scholarship applicants.

# HNRS 3025 Advanced Seminar in Social Science and Humanities (3)

*May be taken for a max. of 6 hrs. of credit when topics vary.* Advanced topics of significance from the social sciences and humanities.

# HNRS 3035 Advanced Seminar in Natural Science (3)

Prereq.: completion of one-year course in a physical science and one-year course in a biological science, at least one with laboratory; or consent of instructor. May be taken for a max. of 6 hrs. of credit when topics vary. Selected topics illustrative of developing concepts of the natural and physical universe and of living organisms.

### HNRS 3100 Internships, Field Work and Off-Campus Programs (1-6)

Prereq.: consent of dean of Honors College. May be taken for a max. of 6 sem. hrs. of credit. For special learning opportunities.

### HNRS 3110 Experiential Leadership Workshop (3)

*May be repeated for a max. of 6 sem. hrs. of credit.* Honors students engage in academically-related leadership experiences.

# HNRS 3500 Independent Study (1-6)

Prereq.: proposal for course of study, approved by supervising faculty member and with the consent of the Honors College. May be taken for a max. of 6 sem. hrs. of credit when topics vary.

# HNRS 4000 Thesis (3)

*Pass-fail grading. May be repeated for a max. of 6 sem. hrs. of credit.* Independent research and writing toward the honors thesis.

# HNRS 4813 Interdisciplinary Fluid Dynamics: Physical Concepts (3)

See ME 4813.

HNRS 4823 Interdisciplinary Fluid Dynamics: Computational Methods (3) See ME 4823.

# Horticulture

HORT 2011 Analysis of Environmental Issues (3) See EMS 2011.

# HORT 2020 Installation and Maintenance of Ornamentals in the Landscape I (2)

*1 hr. lecture; 2 hrs. lab.* Introduction to soil analysis and preparation; installation and maintenance of landscape plants including trees, shrubs, perennials and annuals; irrigation installation and repair.

# HORT 2025 Introduction to the Green Industry (2)

Defining the general management structure and use of horticultural concepts specific to the "green agribusiness" sector; topics include entrepreneurial entry; specialized green industry labor; regulatory oversight; applied use of permits, waivers, and variances; cost effect of regulatory compliance; acquired use of patent and proprietary licensing.

### HORT 2050 General Horticulture (3)

This is a General Education course. Science and art of modern horticultural plant production, including plant anatomy, growth, propagation, nutrition and pest management; review of the horticulture industry, including fruit, vegetable and ornamental crop production.

# HORT 2061 Plant Propagation (3)

This is a General Education course. *Prereq.: HORT* 2050 or concurrent enrollment. Principles of sexual and clonal propagation of plants; commercial production of horticultural crops.

# HORT 2070 Horticulture Lab (1)

*Prereq.: HORT 2050 or concurrent enrollment. Required for all horticulture majors. 3 hrs. lab.* Application of horticultural principles including propagation, greenhouse production, fertilization and pest management.

# HORT 2086 Introduction to Turfgrass Management (3)

Also offered as AGRO 2086. Prereq.: BIOL 1202 or BIOL 1002; AGRO 2051 or equivalent. Required field trips. 2 hrs. lecture; 3 hrs. lab. Turfgrass identification and adaptation; establishment and maintenance of high quality turf areas; turfgrass pests and their control.

# HORT 2120 Woody Plant Materials I (3)

2 hrs. lecture, 3 hrs. lab. Identification and study of trees, shrubs, vines and groundcovers; cultural and visual characteristics of plants used in landscape design.

# HORT 2121 Woody Plant Materials II (3)

*Prereq.:* HORT 2120 or consent of instructor. 2 hrs. *lecture, 3 hrs. lab.* Continuation of HORT 2120 with an introduction to interior plants, native plants and nursery production.

### HORT 2130 Survey of Arboriculture (2)

*1 hr. lecture; 2 hrs. lab.* Review of the biology, growth, environment and management practices for trees in the landscape.

# HORT 2525 Organic Gardening and Sustainable Crop Production (4)

*3 hrs. lecture; 3 hrs. lab.* Principles and practices of organic vegetable and sustainable crop production; encompasses the ecological, economic, and social components of organic and sustainable crop farming systems.

# HORT 2860 Growth and Development of Agricultural Crops (3)

*Prereq.: CHEM 1002 or CHEM 1202 and BIOL 1002 or BIOL 1202. This course is part of ACCEPtS.* Physiology of agricultural plants, including water relations, respiration, photosynthesis and growth and development.

# HORT 3000 Horticultural Internship (3)

*Prereq.: HORT 2050 and written consent of instructor. May be taken for a max. of 6 sem. hrs. credit.* Work experience in horticultural industries culminating in acceptable written reports and a seminar presentation.

# HORT 3005 Horticulture Applications (3)

*3 hrs. lecture.* Calculations and measurements used in applied horticulture.

### HORT 3010 Research Problems (3)

May be taken for a max. of 6 sem. hrs. credit. Written consent of the instructor. Independent research under a faculty member culminating in an oral and written research report.

### HORT 3015 Urban Landscape Management (3)

*Prereq.: HORT 2050 or equivalent. This course is part of ACCEPtS.* Methods for sustainable management of the landscape through proper installation, soil management, plant care, pesticide management, employee management and cost accounting.

# HORT 3030 Installation and Maintenance of Ornamentals in the Landscape II (2)

*Prereq.*: HORT 2020 *or consent of instructor. 1 hr. lecture, 2 hrs. lab* Introduction to the management of interior plants; disease, insect and weed management; pruning techniques for trees, shrubs, palms and roses.

#### HORT 3040 Landscape Construction (2)

*1 hr. lecture; 2 hrs. lab.* Survey of construction techniques and materials used in landscape contracting including drainage systems, paving, retaining walls, decking and fencing.

#### HORT 3122 Herbaceous Plant Materials (3)

2 hrs. lecture, 3 hrs. lab. Identification and study of herbaceous plant materials used in ornamental horticulture and landscaping.

#### HORT 3503 Sustainable Horticulture (3)

*Prereq.: HORT 2050 or equivalent. This course is part of ACCEPtS.* This course will provide base knowledge of the principles and practices of sustainable, organic and alternative horticulture management systems. The class will review and evaluate topics including soil biological processes (compost, humus and fertility), pest management, alternative farming systems and organic agriculture.

# HORT 4010 Tropical/Subtropical Horticulture (3)

*Prereq.: HORT 2050 or equivalent.* Current status of cultivation throughout the world; production practices; postharvest handling; international trade of tropical/subtropical horticultural crops.

### HORT 4012 Special Topics in Horticulture (1-3)

*Prereq.: consent of instructor. May be taken for a max. of 6 sem. hrs. of credit when topics vary. Lab/field trip may be required.* Subject areas not covered in other horticulture courses.

#### HORT 4020 Greenhouse Management and Controlled Environment Agriculture (4)

Prereq.: HORT 2050 or equivalent. This course is part of ACCEPtS. 3 hrs. lecture; 2 hrs. lab. Operation and management of greenhouses and other controlled environments with emphasis on system design and construction, control of light intensity and photoperiod heating and cooling systems, substrates, mineral nutrition, water quality and irrigation systems.

# HORT 4030 Plantation, Beverage and Tropical Nut Crops (3)

*Prereq.: HORT 2050 or equivalent.* World situations, production practices, pest management, harvesting, postharvest care, agro-processing and international trade of rubber, oil palm, cocoa, coconut, olive, coffee, tea, wine grapes, vanilla and various tropical/subtropical nut crops.

#### HORT 4040 International Horticulture (3)

*Prereq.:* HORT 2050 or equivalent. This course is part of ACCEPtS. This course will provide an overview of the horticulture industry worldwide. Export, marketing and international trade issues will be covered in a global horticultural context.

#### HORT 4055 Temperature Stress Physiology (3)

*Prereq.: HORT 2860 or equivalent. This course is part of ACCEPtS.* Principles of plant physiology and biochemistry as affected by abiotic stress with a focus on temperature. Basic principles of plant physiology, thermodynamics, temperature, and its effects on the growth and development of horticultural plants including specialty crops, ornamentals, and turfgrasses. Mechanisms of plant response to heat, chilling, and freezing stress including injury, acclimation, protection, and resistance.

### HORT 4060 Plant Growth and Development (3)

Prereq.: HORT 2860 or equivalent. This course is part of ACCEPtS. Structure of plant developmental processes; how environmental factors interact to affect and control plant growth and development and how production practices are used to regulate, control, and increase or improve crop production. Topics include embryogenesis, structure of the shoot apex, organogenesis of the leaf and shoot system, reproductive development, fruit development, dormancy, influence of light on growth, and tropisms.

# HORT 4064 Principles of Plant Breeding (4) See AGRO 4064.

#### HORT 4071 Nursery Management (3)

*Prereq.: BIOL 3060 or equivalent. Required field trips. 2 hrs. lecture; 2 hrs. lab.* Principles and practices involved in commercial production, management and marketing of nursery crops.

# HORT 4072 Sustainable Ornamental Production (3)

*Prereq.: HORT 2050 and HORT 2061. This course is part of ACCEPtS.* This course addresses a variety of topics including, sustainable practices in locating a nursery, nursery layout, plant nutrition, plant water relations and irrigation needs, shipping and managing people and resources to produce the crop.

# HORT 4083 Principles and Practices in Olericulture (4)

*Prereq.: AGRO 2051 and HORT 2050. Required field trips. 3 hrs. lecture; 2 hrs. lab.* Review of U.S. commercial vegetable industry; seed handling, field microclimate modification, transplant handling, stand establishment, influence of soil chemical and physical properties and greenhouse vegetable production.

# HORT 4085 Principles and Practices in Fruit and Nut Production (4)

*Prereq.: HORT 2050 or equivalent. Required field trips. 3 hrs. lecture; 2 hrs. lab.* Physiological principles involved in growing pomological crops; overview of state, U.S., and worldwide fruit and nut industry; marketing and production strategies.

### HORT 4091 Advanced Turfgrass Management (3)

*3 hrs. lecture.* Physiology and cultural management of turfgrass in the environment.

# HORT 4096 Postharvest Physiology (4)

*Prereq.: PLHL 3060. 3 hrs. lecture; 2 hrs. lab.* Physiological changes associated with storage and handling of fruits and vegetables; current practices used in extending shelf-life; basic and applied laboratory analysis techniques.

### HORT 4099 Horticulture Capstone (2)

*Prereq.: 60 hours in the major field. 2 hrs. lecture.* Develop critical thinking, oral, and written skills in applied plant sciences.

#### HORT 4545 Sustainable Agriculture (3)

Also offered as AGEC 4545. *3 hrs. lecture.* The social, economic and environmental dimensions of agriculture and the emerging global challenges involved with climate change, food security, resource depletion, and various recent movements within agriculture.

# HORT 7010 Teaching Practicum (1)

See AGRO 7010.

### HORT 7071 Advanced Plant Genetics (3)

See also AGRO 7071. Prereq.: ANSC 2072 or equivalent. Theory and practical application of cytogenetics in plant improvement, extrachromosomal inheritance, and gene expression.

# HORT 7074 Quantitative Genetics in Plant Improvement (3)

See AGRO 7074.

# HORT 8000 Thesis Research (1-12 per sem.) "S"/"U"grading.

### HORT 8900 Research Problems in Horticulture (3)

Prereq.: consent of department head. Pass-fail grading. May be taken for a max. of 6 hrs. of credit when topics vary. Students minoring in horticulture may take this course only once. HORT 9000 Dissertation Research (1-12 per sem.) "S"/"U"grading.

# **Human Resource Education**

# HRE 4849 Special Topics in Industrial Education (1-3)

May be taken for a max. of 6 sem. hrs. credit. Permission of *instructor*. Current practices and technological advances in industrial education; individual or group study under the direction of a faculty member.

# HRE 4859 Special Topics in Business Education (1-3)

May be taken for a max. of 6 sem. hrs. of credit when topics vary. Permission of instructor. Individual and group study of selected topics under the direction of a faculty member.

# HRE 4869 Special Topics in Home Economics Education (1-3)

*Prereq.: consent of instructor. May be taken for a max. of 6 sem. hrs. of credit.* Current practices and technological advances in vocational home economics.

# HRE 7140 Program Design, Implementation, & Management (3)

Introduction to the design, implementation and management of human resource development, leadership, and organization development programs and interventions.

# HRE 7334 Vocational Counseling (3) See ELRC 7334.

CC LLKC 7554.

# HRE 7700 Introduction to Leadership Development (3)

A comprehensive look at classic and contemporary theory and research in the twin domains of leadership and leadership development.

# HRE 7809 Practicum for the Human Resource Educator (3-9)

*Prereq.: permission of instructor.* Practical experience under the guidance of practicing vocational educators in various educational settings.

# HRE 7848 Special Topics in Industrial Education (1-3)

May be taken for a max. of 6 sem. hrs. Permission of instructor. Independent or group study under the direction of the graduate faculty.

# HRE 7862 Current Problems in Home Economics Education (3)

Study of social, legislative and educational problems.

# HRE 7900 Applied Research Methods and Analysis in Organizations (3)

An experiential introduction to the applied research process in organizations including the conceptualization of applied research, designing studies, analyzing data, and reporting results to stakeholders.

# HRE 7912 Qualitative and Mixed Research Methods (3)

*Prereq.: LHRD 7901 and AEEE 7905.* Study of how to apply qualitative research methods and mixed research methods that positively impact the community.

# Human Ecology: Family, Child and Consumer Sciences

### HUEC 1060 Personal Money Management (1)

Also offered as FIN 1060. Goal setting, budgeting, credit managing, saving and investing and retirement planning.

# HUEC 7050 Research Seminar in Family, Child & Consumer Sciences (1)

*May be taken for a max. of 2 hrs. of credit when topics vary.* Reports and discussion of current literature and research.

### **HUEC 7843 Early Childhood Education (3)** See EDCI 7843.

# Human Ecology: General Human Ecology

# HUEC 3091 Reading and Research in Human Ecology (1-6)

*May be taken for a max. of 6 hrs. of credit.* Open to advanced students of high academic standing by consent of director. Students are responsible for registering with a faculty member with whom they will select the area of reading and research.

# HUEC 7093 Advanced Research Methods in Human Ecology (3)

*Prereq.: TAM 7090 or equivalent and EXST 7013 or EXST 7014 or EXST 7015 or equivalent. 2 hrs. lecture; 2 hrs. lab.* Research methods and applications in human ecology.

# Human Ecology: Human Nutrition and Food

### HUEC 7010 Food and Nutrition Seminar (1)

May be taken for a max. of 6 hrs. of credit when topics vary. Reports and discussion of current literature and research.

# **Interior Design**

### ID 1051 Introduction to Interior Design (3)

This is a General Education course. Contemporary practice of interior design as a profession; responsibilities of the interior designer.

# ID 1711 Basic Design Foundation (3)

Prereq.: controlled admission to program in interior design at first year entry level or permission of department. Credit will not be given for this course and ART 1011. 6 hrs. studio. Basic design problems with an emphasis on twodimensional principles and elements; foundation for the graphic exploration of interior space.

# ID 1780 Interior Design Technical Drawing (3)

Prereq.: controlled admission to program in interior design at first year entry or permission of department. 1 hr. lecture; 4 hrs. studio. Introduction to the graphic tools, techniques and conventions designers use to communicate architectural ideas; an immersion in the graphic language of drawing.

# ID 2650 HONORS: Interior Design Studio I (4)

Prereq.: admission to professional program in interior design or permission of department. Concurrent enrollment in ID 2781. Same as ID 2750, with special emphasis for qualified Honors students. Credit will not be given for this course and ID 2750. 8 hrs. studio.

# ID 2651 HONORS: Interior Design Studio II (4)

Prereq.: ID 2750 or ID 2650 or equivalent. Same as ID 2751, with special emphasis for qualified Honors students. Credit will not be given for this course and ID 2751. 8 hrs. studio.

# ID 2750 Interior Design Studio I (4)

Prereq.: admission to professional program in interior design or permission of department. An Honors course, ID 2650, is also available. Credit will not be given for this course and ID 2650. Concurrent enrollment in ID 2781. 8 hrs. studio. Basic design problems in the built environment; emphasis on design process, form and principles of spatial organization.

# ID 2751 Interior Design Studio II (4)

Prereq.: ID 2750 or equivalent. An Honors course, ID 2651, is also available. Credit will not be given for this course and ID 2651. Required field trip. Students are responsible for paying travel expenses associated with the course.

*8 hrs. studio.* Exploration and analysis of design decisions related to interior space.

# ID 2770 Color and Illumination I (3)

*Prereq.: sophomore standing in the major; nonmajors by consent of instructor only. 1 hr. lecture; 4 hrs. studio.* Nature, theory and art of color and light applied to two- and three-dimensional basic design projects.

### ID 2774 Interior Construction and Systems (3)

*Prereq.: admission to professional program.* Building systems and construction methods; code requirements for interiors.

# ID 2775 Interior Materials, Finishes and Furnishings (3)

*Prereq.: ID 2774 or equivalent.* Types and sources of materials; finishes and furnishings used in interior spaces.

# ID 2781 Interior Design Graphics (3)

*Prereq.: admission to professional program. Concurrent enrollment in ID 2750. 6 hrs. studio.* Graphic representation methods used to illustrate and investigate form, spatial order and the design process.

### ID 2785 Computer Visualization (3)

Prereq.: admission to professional program or consent of instructor. 1 hr. lecture; 4 hrs. lab. Computer drafting and three-dimensional modeling for spatial designers.

#### ID 3652 HONORS: Interior Design Studio III (4)

Prereq.: ID 2751 or ID 2651 or equivalent and ID 2775. 8 hrs. studio. Same as ID 3752, with special emphasis for qualified Honors students. Credit will not be given for this course and ID 3752.

#### ID 3653 HONORS: Interior Design Studio IV (4)

Prereq.: ID 3752 or ID 3652 or equivalent. 8 hrs. studio. Same as ID 3753, with special emphasis for qualified Honors students. Credit will not be given for this course and ID 3753.

#### ID 3752 Interior Design Studio III (4)

Prereq.: ID 2751 and ID 2775 or equivalent. An Honors course, ID 3652, is also available. Credit will not be given for this course and ID 3652. Required field trip. Students are responsible for paying travel expenses associated with the course. 8 hrs. studio. Formulation of design concept/image; design implications of function, space and scale.

#### ID 3753 Interior Design Studio IV (4)

Prereq.: ID 3752 or equivalent. An Honors course, ID 3653, is also available. Credit will not be given for this course and ID 3653. 8 hrs. studio. Design development of interior environments.

#### ID 3759 Special Studies in Interior Design (1-6)

*Prereq.: consent of instructor. May be taken for a max. of 6 sem. hrs. of credit.* Advanced studio work in predetermined areas of specialization.

#### ID 3761 Interior Design Internship (3)

*Prereq.: completion of all 2000-level interior design courses and consent of instructor. Pass-fail grading.* At least 20 hours of work per week (35 hours per week in summer session) supervised by an interior design faculty member and a professional designer in an approved firm.

#### ID 3770 Color and Illumination II (3)

*Prereq.: junior standing in major; nonmajors by consent of instructor only. 1 hr. lecture; 4 hrs. studio.* Quantitative and qualitative aspects of color/light; application to interior design.

# ID 3782 Interior Design Construction Documents (3)

*Prereq.: ID 2751 or equivalent. 1 hr. lecture; 4 hrs. studio.* Development of construction documents for interior projects; design and documentation of interior architectural details.

# ID 4555 Interior Design Studio (4)

*Prereq.: ID 3753 or equivalent and consent of department.* 8 hrs. studio. Special topics studio developed around faculty expertise or opportunities in the profession.

### ID 4620 HONORS: Seminar in Interior Design (3)

Prereq.: ID 3752 or ID 3652 or equivalent. Same as ID 4720, with special emphasis for qualified Honors students. Credit will not be given for this course and ID 4720.

### ID 4654 HONORS: Interior Design Studio V (4)

Prereq.: ID 3753 or ID 3653 or equivalent. 8 hrs. studio. Same as ID 4754, with special emphasis for qualified Honors students. Credit will not be given for this course and ID 4754.

### ID 4655 HONORS: Interior Design Studio VI (4)

Prereq.: ID 4754 or ID 4654 or equivalent. Concurrent enrollment in ID 4756. 8 hrs. studio. Same as ID 4755, with special emphasis for qualified Honors students. Credit will not be given for this course and ID 4755.

#### ID 4720 Seminar in Interior Design (3)

*Prereq.: ID 3752 or equivalent. An Honors course, ID 4620, is also available. Credit will not be given for this course and ID 4620.* Research, discussions and presentations related to contemporary issues in interior design.

### ID 4741 History of Interior Design (3)

Development of interior design; decoration and furnishings throughout history; examining design as an expression of cultural values and its social, industrial and technological influences.

# ID 4742 Interior Design Contemporary Issues and Theory (3)

Research, discussions and presentations related to the contemporary issues in interior design.

#### ID 4751 Interior Component Design (3)

*Prereq.: ID 2751 or equivalent. 1 hr. lecture; 4 hrs. studio.* Design, materials and construction techniques of interior components; scale, model and computer-simulated design prototypes.

### ID 4754 Interior Design Studio V (4)

Prereq.: ID 3753 or equivalent. An Honors course, ID 4654, is also available. Credit will not be given for this course ID 4654. 8 hrs. studio. Advanced application of the design process; development of comprehensive solutions to complex interior design problems.

#### ID 4755 Interior Design Studio VI (4)

Prereq.: ID 4754 or equivalent. Concurrent enrollment in ID 4756. An Honors course, ID 4655, is also available. Credit will not be given for this course and ID 4655. 8 hrs. studio. Design synthesis in a comprehensive capstone project.

# ID 4756 Independent Study Project (3)

*Prereq.: ID 4720. Concurrent enrollment in ID 4755. 6 hrs. studio.* Execution of a project selected by the advanced student with guidance from an advisory committee.

# ID 4758 Advanced Studies in Interior Design (1-6)

*Prereq.: consent of instructor. May be taken for a max. of 9 hrs. of credit when topics vary.* Advanced studio work in a predetermined area of specialization at upper level status.

# ID 4761 Professional Practice (3)

*Prereq.: senior standing in the major or consent of instructor.* Entering the profession; interior design business practices; ethics and project management.

# ID 4765 Interior Design Professional Residency (6)

Prereq.: completion of all 2000-level interior design courses and consent of instructor. Pass-fail grading. At least 320 hours of work per semester (or semester and summer session) supervised by an interior design faculty member and a professional designer in an approved firm.

#### ID 4772 Sustainable Design Practice (3)

*Credit will not be given for this course and CM 4302. Prereq.: consent of department.* Introduction to high performance green building assessment systems with emphasis on interior design, construction, and operations.

#### ID 4773 Principles of Sustainability (3)

*Prereq.: consent of department.* The principles, theory, and application of sustainability to advance environmentally responsible interior environments; introduction to natural systems, interior environmental quality, systems, ethics, and stewardship.

#### ID 4786 Advanced Computer Visualization (3)

*Prereq.: admission to professional program or permission of instructor. 1 hr. lecture; 4 hrs. lab.* Advanced topics in computer drafting and three-dimensional modeling for spatial designers.

# Industrial Engineering

**IE 1002 Industrial Engineering Fundamentals (3)** Introduction to industrial engineering design process and concepts.

**IE 2060 Introduction to the Use of Computers (3)** *Prereq.: eligibility to take MATH 1550 or equivalent and credit or registration in IE 1002. 2 hrs. lecture; 3 hrs. lab.* Principles of digital programming; application of subroutines; application of electronic computers to typical engineering problems; OS operation, Microsoft Office, and Groupware.

#### IE 2400 Methods and Systems Engineering (3)

*Prereq.: Credit or registration in IE 1002. 2 hrs. lecture; 3 hrs. lab.* System and work design concepts; time studies; performance rating and allowances; standard and predetermined times; work methods improvement; design of

manual work, equipment and tools and work environments; line balancing; manpower determinations, job analysis and incentives; business systems analysis, lean and value analysis.

### IE 3201 Principles of Engineering Economy (3)

Planning economy studies for decision-making, including considerations of rate of return, cost and yield studies, depreciation and tax relationships, increment costs, replacement and introduction to multivariate alternative studies.

### IE 3302 Engineering Statistics (3)

*Prereq.: grade of C or better required in MATH 1552 and PHYS 2112 or CSC 2259.* Probability, discrete and continuous distributions, functions of random variables, estimation theory, tests of hypotheses including goodness-of-fit and independence.

# IE 3520 Supply Chain Logistics I (3)

*Prereq.: IE 2400, MATH 2090; credit or registration in IE 3302.* Introduction to resources and systems; Logistics resource optimization: linear programming; Logistics network and flow problems: transportation problems, shortest path and vehicle routing, maximum flow problems; project and resources management and operations sequencing and resource scheduling.

#### IE 3699 Engineering Practice (3)

Prereq.: consent of instructor. Pass-fail grading. A minimum of 6 weeks of full-time employment in industry on Industrial Engineering related design problems. Selected engineering problems in an industrial environment.

#### IE 4113 Project Management (3)

*Credit will not be given for this course and ISDS 4113.* Project management and theory practice. Practical approach to organizing, planning, and controlling projects in information systems, healthcare, manufacturing and services.

#### IE 4362 Advanced Engineering Statistics (3)

*Prereq.: grade of C or better in IE 3302.* Linear regression and correlation, curvilinear regression, analysis of variance and factorial experiments.

### IE 4425 Information Systems Engineering (3)

*Prereq.: credit or registration in IE 2060. 2 hrs. lecture; 3 hrs. lab.* Analysis and design of information systems; projects relating comprehensive computer systems to typical industrial and service applications; ethics and professionalism.

# IE 4426 Distributed Information Systems Engineering (3)

Prereq.: IE 2060 or CSC 1253 or CSC 1350 or ISDS 3107 and credit or registration in IE 4425 or CSC 4402 or ISDS 3110.

*2 hrs. lecture; 3 hrs. lab.* Analysis, design, and development of database-driven web and mobile applications and web services in industrial, business, and ecommerce settings.

# IE 4427 Ecommerce Engineering (3)

Prereq.: IE 2060 or CSC 1253 or CSC 1350 or ISDS 3107, and credit or registration in IE 4425 or CSC 4402 or ISDS 3110. 2 hrs. lecture; 3 hrs. lab. Business processes underlying modern commerce and supply chain systems and the information technologies used to implement them.

## IE 4453 Quality Control & Six Sigma (3)

*Prereq.: grade of C or better in IE 3302.* Principles and practice of quality assurance and control; theory of statistical sampling and control and related economic analysis; Quality Systems; Six Sigma principles and practice.

### IE 4461 Human Factors Engineering (3)

*Prereq.: credit or registration in IE 2400. 2 hrs. lecture; 3 hrs. lab.* Human performance in human-machine systems, including information processing, display and control design, workplace design and environmental effects on worker performance.

# IE 4462 Safety Engineering (3)

Occupational safety and health and accident prevention management; design and implementation of safety programs; cost analysis; control of hazardous physical and environmental conditions.

# IE 4465 Biomechanics for Engineers (3)

See BE 4323.

# IE 4466 Human Computer Interaction (3)

*Prereq.: IE 2060 or equivalent.* Systems approach to the identification, de-sign, analysis and development of human-operated information processing systems; applications to practical problems in industry, military, health systems and education.

## IE 4485 Systems Integration in Manufacturing (3)

*Prereq.*: IE 2060; EE 2950. *2 hrs. lecture; 3 hrs. lab.* Principles and application of information technologies to monitoring, control and integration of manufacturing operations at all levels within the organization.

### IE 4516 Plant and Systems Design (3)

Prereq.: IE 3201 and credit or registration in IE 3520 and IE 4113/ISDS 4113.

Machine loading, assembly balancing techniques, design of physical-manufacturing systems, integrating materialshandling systems into the plant, design of plant service systems, site and plant location and projects involving plant design using optimization techniques; ethics and professionalism.

# IE 4520 Supply Chain Logistics II (3)

*Prereq.: grade of C or better in IE 3520.* Production logistics: forecasting, aggregate production, inventory systems and materials requirement planning; lean supply system and supply chain management; warehousing and distribution systems; supply chain information technologies and government policies/regulations.

# IE 4530 Lean Manufacturing Systems (3)

Prereq.: IE 2060 and credit or registration in IE 3520 and IE 4362. 2 hrs. lecture; 3 hrs. lab. Principles of Lean Manufacturing Systems; Queuing Theory and Analysis; Measurement and Assessment-Industrial Process Mapping, Workflow Analysis; Improvement Activities-Process and Operational Variability Reduction, Resource Reduction, Work-in-Process Reduction, Waste Reduction, Zero Inventory and Just-in-time Production Systems; Design for Lean Manufacturing; Material and Shop Floor Flow Control; Simulation Modeling and Analysis of Lean Systems.

# IE 4540 Reliability Engineering (3)

*Prereq.: IE 3302.* Reliability in design; reliability models; reliability assessment during pre-production development and testing; and special problems in maintenance, spare parts and Markov processes.

# IE 4597 Industrial Engineering Capstone Design I (2)

Prereq.: IE 4425, IE 4453, IE 4461, IE 4520, ME 3633, senior standing in College of Engineering and credit or registration in IE 4516 and IE 4530. 1 hr. lecture; 3 hrs. lab. Senior design projects.

# IE 4598 Industrial Engineering Capstone Design II (2)

*Prereq.: IE 4597. 6 hrs. lab.* Continuation of senior design projects from IE 4597.

# IE 4785 Special Topics in Industrial Engineering (1-3)

Prereq.: senior standing and consent of department. May be taken for a max. of 6 hrs. of credit when topics vary. Two sections may be taken concurrently if topics vary. Topics in industrial engineering not sufficiently covered in other undergraduate courses.

### IE 7211 Project Engineering (3)

*Prereq.: IE 3201 or equivalent.* Large-scale engineering construction or development projects from schematic to online condition.

# IE 7425 Advanced Information Systems Engineering (3)

*Prereq.: IE 4425 or equivalent. 2 hrs. lecture; 3 hrs. lab.* Advanced concepts of information systems engineering with emphasis on middleware architectures/technologies for integrating databases; design issues and methodology for developing and implementing distributed information systems; and design and implementation of datawarehouses and online analytical precessing (OLAP) systems.

### IE 7428 Semantic Analysis (3)

*Prereq.: IE 3302 and IE 4362 or equivalent.* Automated determination of semantic content (a.k.a. meaning) of text and speech and applications to human-computer and human-machine interfaces and task automation.

# IE 7455 Lean Process Improvement (3)

Philosophy and concepts of quality and process improvement, organization for quality, quality improvement (QI) tools and techniques, advanced QI techniques and quality improvement systems. Application of advanced Six Sigma and Lean tools and techniques to case studies related to the construction industry. Investigation, learning and application of current research related to the course topics.

# IE 7464 Work Physiology (3)

*Prereq.: IE 4461 or equivalent.* Study of worker's physiological responses (cardiovascular, pulmonary, muscular) to work applicable to task design and evaluation, employee selection and placement and work-rest scheduling.

### IE 7465 Occupational Biomechanics (3)

*Prereq.: IE 4461 or equivalent. 2 hrs. lecture; 3 hrs. lab.* Principles of biomechanics applied to human movement; applications to work systems such as manual materials handling and tool design.

#### IE 7466 Human Interaction with Computers (3)

*Prereq.: IE 4461 or IE 4466 or equivalent.* Ergonomics of the use of interactive computer systems; general characteristics and requirements of people-oriented computer systems from the perspective of different disciplines and tasks, e.g., text editing.

# IE 7467 Cognitive Ergonomics and Work Environments (3)

*Prereq.: IE 3302 and IE 4461 or equivalent.* Topics in cognitive ergonomics relating to information processing, visual and auditory displays and aspects of the work environment such as noise, socio-technical systems and psychosocial factors. Application to various work settings including construction, healthcare and the service sector.

# IE 7541 Linear Programming Algorithms (3)

*Prereq.: IE 3520 or equivalent.* Optimization of linear objective functions subject to linear constraints; vector spaces, convex analysis, polyhedral sets; matrix versions of simplex, revised simplex, bounded variables; duality theory and primal-dual simplex algorithms; postoptimal and parametric analysis; decomposition and cutting plane algorithms.

# IE 7561 Programming Methods in Operations Research (3)

*Prereq.: IE 3520 or equivalent.* Aspects of advanced programming methods for unconstrained and constrained problems; development of goal, zero-one, gert and multiple objective programming with application to industrial processes and planning.

#### IE 7565 Metaheuristics (3)

*Prereq.: IE 3520 or equivalent.* Introduction of the principles, algorithms and real world applications of metaheuristic algorithms including projection based methods such as simulated annealing, tabu search, variable neighborhood search, guided local search, iterated local

search and population based methods such as particle swarm optimization, differential evolution, ant colony optimization, genetic algorithm and evolutionary programming.

# IE 7722 Special Topics in Industrial Engineering (3)

May be taken for a max. of 12 sem. Hrs. when topics vary. Special topic courses in specialized areas such as design and analysis of complex production systems, supply-chain control, maintenance, quality control, reliability, ergonomics and human-computer interaction, information systems, safety and construction management.

### IE 7724 Independent Study in Industrial Engineering (1-3)

Prereq.: consent of department. May be taken for a max. of 6 sem. hrs. of credit. Independent study in specialized areas such as design and analysis of complex production systems, supply-chain control, maintenance, quality control, reliability, ergonomics and human-computer interaction, information systems, safety and construction management.

#### IE 7762 Supply Chain Systems (3)

*Prereq.: IE 3520 or IE 4520 or equivalent.* Components in supply chain systems; product life-cycle modeling, rotational production and supply, integrated component supply systems, multi-source supplier and buyer systems, just-in-time supply chain systems, warehousing and distribution systems, supply transportation system and information technology for supply chain systems.

### IE 7764 Logistics & Distribution Systems (3)

*Prereq.: IE 3520 and IE 4520 or equivalent.* Concept of logistics and distribution, large scale operational logistics, materials refurbishing logistics, warehousing logistics, designing logistics network and distribution systems, convoy movements, long- and short-haul freight transportation and industrial practices.

# IE 7765 Lean Production Systems (3)

*Prereq.: IE 3520 or IE 4520 or equivalent.* Principles and components of lean production systems; industrial process mapping, workflow analysis; resource reduction; market characterization, logistics information and error propagation; reduction of work-in-process, waster reduction, zero inventory and just-in-time production systems; material flow control; process and operational variability reduction; role of buffers and process stabilization.

#### IE 7768 Sequencing and Scheduling (3)

*Prereq.: IE 3520 or IE 4520 or equivalent.* Measures of scheduling; deterministic models for single and parallel machines, job shops, flow shops, and open shops; stochastic scheduling models for machines, job shops, flow shops and open shops; computational complexity and industrial applications.

### IE 7771 Design of Manufacturing Systems (3)

*Prereq.: IE 3520 or IE 4520 or equivalent.* Principles in modeling, analysis, design and operations; mass production, cellular manufacturing, machine location and layout, job routing and loading strategy; material handling and storage/retrieval systems.

### IE 8000 Thesis Research (1-12 per sem.)

"S"/"U"grading.

### **International Studies**

#### INTL 1990 Introduction to Study Abroad (1)

Principal themes of study abroad including development of skills and perceptives to transact, communicate, and engage across cultures.

#### INTL 2000 Contemporary Global Issues (3)

This is a General Education course. Survey of current world issues from an interdisciplinary perspective.

#### INTL 3001 Gateway to International Studies (3)

Prereq.: ANTH 1003 or ANTH 2051, ECON 2030, GEOG 1001 or GEOG 1003, HIST 1007, POLI 2053 or POLI 2057. Required for all international studies majors. Modernity, colonialism and globalization in regional perspective.

# INTL 3002 Independent Study in International Studies (3)

*Prereq.: permission of instructor. May be taken for a max. of 6 hrs. of credit when topics vary.* Independent study relevant to the field of international studies.

# INTL 3092 Fundamentalisms and Religious Nationalism (3)

See REL 3092.

# INTL 3099 Undergraduate Internship in International Studies (3)

May be taken for a max. of 6 hrs. of credit when topics vary. Open to undergraduate students approved by the International Studies Program. May be counted toward the total number of hours required for a major in International Studies but not toward fulfilling field requirements. Program of study, research and work in governmental or private agencies concerned with international policy.

### INTL 3786 Religion of Islam (3)

See REL 3786.

#### INTL 3991 Study Abroad in Africa (1-6)

May be repeated for up to 12 hours credit when topics vary. Studies in the history, culture, economics, politics or geography of Africa.

#### INTL 3992 Study Abroad in the Middle East (1-6)

May be repeated for up to 12 hours credit when topics vary. Studies in the history, culture, economics, politics or geography of the Middle East.

### INTL 3993 Study Abroad in Asia (1-6)

May be repeated for up to 12 hours credit when topics vary. Studies in the history, culture, economics, politics or geography of Asia.

#### INTL 3994 Study Abroad in Europe (1-6)

May be repeated for up to 12 hours credit when topics vary. Studies in the history, culture, economics, politics or geography of Europe.

#### INTL 3995 Study Abroad in Latin America (1-6)

May be repeated for up to 12 hours credit when topics vary. Studies in the history, culture, economics, politics or geography of Latin America.

### INTL 3996 Study Abroad in Russia and Central Asia (1-6)

May be repeated for up to 12 hours credit when topics vary. Studies in the history, culture, economics, politics or geography of Russia and/or Central Asia.

# INTL 4002 South Asian Society, Polity and Culture (3)

*Cross-listed with ANTH 4002, GEOG 4002, and REL 4001.* Historical anthropology of South Asia examining the four major cultural traditions (Hindu/Buddhist, Islamic, British and nationalist) which currently shape the politics of nationalism, development, ethnicity, caste and gender in the region.

# INTL 4003 International Studies Senior Seminar (3)

Prereq.: INTL 3001 and 9 hrs. of additional upper level courses in an area of concentration. Required for all international studies majors, seniors only. Advanced theory and case studies of globalization in an interdisciplinary perspective.

### **INTL 4033 Geography of Central Asia and Afghanistan (3)** See GEOG 4033.

**INTL 4051 North Africa and the Middle East (3)** See GEOG 4051.

#### **INTL 4096 The Modern Middle East (3)** See HIST 4096.

#### INTL 4100 Migration, Diasporas and Identity (3)

An interdisciplinary survey of global migration in the modern era and the resultant subnational and transnational forms of community, identity, and subjectivity: colonists, exiles, immigrants, refugees and transients.

# INTL 4997 Special Topics in International Studies (3)

May be repeated for a max. of 6 hrs. of credit when topics vary.

### Information Systems & Decision Sciences

# ISDS 1100 Introduction to Management Information Systems (3)

[LCCN: CBUS 2203, Computer Applications] *An honors course, ISDS 1101, is also available. Credit will not be given for both this course and ISDS 1101, ISDS 1102, CSC 1100, LIS 2001, EXST 2000. 1 hr. lecture; 4 hrs. lab.* Examine the expanding role of information technology in organizations including the development and use of information systems, hardware and software, the strategic impact of IT and the nature of the IT career; utilization of management information systems to improve managerial decision-making.

# ISDS 1101 HONORS: Introduction to Management Information Systems (3)

Same as ISDS 1100 or ISDS 1102, with special honors emphasis for qualified students. Credit will not be given for both this course and ISDS 1100 or ISDS 1102.

### ISDS 1102 Introduction to Management Information Systems for Business Majors (3)

An honors course, ISDS 1101, is also available. Credit will not be given for both this course and ISDS 1100 and ISDS 1101. Role of information technology in business including the development and use of information systems, hardware and software, the strategic impact of IT for businesses and the nature of the IT career; utilization of management information systems to improve managerial decisionmaking.

#### ISDS 2000 Business Statistics and Analytics I (3)

[LCCN: CMAT 1303, CBUS 2303, Introductory Statistics, Business Statistical Methods I] *An honors course,ISDS* 2010, is also available. Prereq.: MATH 1431 or equivalent. Credit will not be given for both this course and ISDS 2010. Descriptive analytics; sampling, probabilities and distributions, sampling distributions; inferential statistics including estimation, hypothesis tests; regression.

#### ISDS 2001 Business Statistics and Analytics II (3)

[LCCN: CBUS 2313, Business Statistical Methods II] *An honors course, ISDS 2011, is also available. Prereq.: ISDS 2000 or equivalent. Continuation of ISDS 2000. Credit will not be given for both this and ISDS 2011.* Advanced statistical methods; ANOVA and multiple linear regression; predictive analytics; decision analysis.

# ISDS 2010 HONORS: Introduction to Business Statistics (3)

Same as ISDS 2000, with special honors emphasis for qualified students. Credit will not be given for this course and ISDS 2000.

## ISDS 2011 HONORS: Statistical Methods and Models (3)

Same as ISDS 2001, with special honors emphasis for qualified students. Credit will not be given for this course and ISDS 2001.

# ISDS 3070 Independent Reading and Research in Information Systems and Decision Sciences (1-6)

Prereq.: ISDS 3100 and consent of instructor. May be taken for a max. of 6 sem. hrs. of credit. Student is responsible for registering with a faculty member and selecting an area of reading and/or research.

# ISDS 3075 Internship in Information Systems and Decision Sciences (3)

Prereq.: permission of instructor and department chair required. Pass/fail grading. At least the equivalent of 144 hours per semester (3 credits) of learning experience in information systems under the general supervision of an ISDS faculty member and direct supervision of an information systems or decision sciences professional. Grading based on the faculty member's evaluation, a written report by the professional supervisor and a written report by the student.

# ISDS 3100 Foundations of Information Systems (3)

*Prereq.: ISDS 1100 or ISDS 1101 or ISDS 1102, or consent* of department. The role of information systems in organizations including the development of and use of information systems, operational and strategic impact, and inter-organizational implications.

### ISDS 3105 Internet Development Tools (3)

*Prereq.: ISDS 1100 or equivalent.* Understanding of the Internet and its structure for use in business; technologies employed to develop Internet applications; development of business applications for the Internet.

# ISDS 3107 Design of Information Systems Solutions (3)

*Prereq.: Credit or registration in ISDS 3100.* Fundamentals of programming, program design, application development interfaces, debugging, testing and implementation. Design and development of information systems solutions.

#### ISDS 3110 Data and Information Management (3)

*Prereq.: Credit or registration in ISDS 3100.* Concepts and methods associated with the definition, structure, creation, and utilization of databases for computer-based information systems.

# ISDS 3115 Introduction to Operations Management (3)

[LCCN: CMGM 3213, Production & Operations (Upper Level)] *Prereq.: ISDS 2001 or equivalent.* Principles and methodologies concerning productivity and quality of manufacturing and service organizations; production and service systems design; process and capacity design; total quality management; systems for just-in-time and purchasing management; inventory and materials management.

### ISDS 3120 Management of the IT Function (3)

Issues in managing the Information Technology (IT) function, including the discussion of how technology has underpinned the "new Economy," formulating an IT strategy, structuring and managing the IT function and emerging trends in IT.

### ISDS 3200 Advanced Business Programming (3)

*Prereq.:* "C" or better in ISDS 3107; and credit or registration in ISDS 3110. Computer programming methods for business systems emphasizing contemporary programming environments and applications development interfaces.

#### ISDS 4111 Enterprise Systems (3)

*Prereq.: ISDS 3100.* Overview of key enterprise systems concepts from functional, technical and implementation perspective; emphasis on the process-centered organization and how integrated systems are designed to support cross-functional business; hands-on computer based exercises involving a hypothetical global company

#### ISDS 4112 Data Warehousing (3)

*Prereq.:* "*C*" or better in ISDS 3110. Data warehouses for business; topics include: business intelligence, data charts, multidimensional data, data mining, Web-enabled data warehouse, knowledge management.

# ISDS 4113 Management of Information Systems Projects (3)

*Prereq.:* "C" or better in ISDS 3100, ISDS 3107, and ISDS 3110, or consent of instructor. Credit will not be given for this course and IE 4113. Topics on effectively managing information technology projects including: setting goals and objectives; work breakdown structures; project scheduling; managing project resources; evaluation and review; incentives and qualitative analysis; project accounting; extensive use of cases involving hands-on computer analyses with state-of-the-art project management software.

#### ISDS 4117 Management of E-Commerce and Internet Information Systems (3)

Management of e-commerce and Internet systems including: business models and strategies; performance and evaluation; navigation and content; security, trust and legal issues; integration of managerial, technical, and legal perspectives for intra-business systems, B2B systems, esupply chains, portals, B2C systems, electronic markets and e-government.

#### ISDS 4118 Web Analytics (3)

*Prereq.: ISDS 3100.* Principles of web analytics; key performance indicators, benchmarks, A/B testing, personalized content, customer-centric website design, process flow analysis, usability, research design and statistical methods.

#### **ISDS 4120 Enterprise Architecture (3)**

*Prereq.:* "*C*" or better in ISDS 3100, ISDS 3107, and ISDS 3110. Coordination if the hardware and software components of enterprise communication systems.

### ISDS 4123 Computer and Networking Security (3)

*Prereq.: ISDS 4120.* Security management, corporate risk assessment, access control, authentication, transmission control protocol and Internet protocol packet content analysis, firewall hardware and software, types of encryption, cryptographic systems, application security issues and laws governing security and privacy.

# ISDS 4125 Analysis and Design of Information Systems (3)

Prereq.: Credit or registration in ISDS 4113 and credit or registration in ISDS 4120 AND "C" or better in ISDS 3100, ISDS 3110, and ISDS 3200. Methods for analyzing information needs and designing, evaluating, implementing computer-based information systems.

#### ISDS 4141 Introduction to Data Mining (3)

*Prereq.: ISDS 3100.* Fundamental methodology and techniques used in data mining, with particular emphasis on business applications; topics include market basket analysis, memory-based reasoning, cluster detection, link analysis, decision trees and rule induction, neural networks and genetic algorithms.

#### ISDS 4160 Sourcing in China (3)

Energy and network clusters; cost competitiveness; choosing strategic partners and suppliers; negotiation style; brand, design and manufacturing; factory and supply chain audits; protecting intellectual property; vulnerability assessments; energy and global sourcing repositioning; energy and sourcing practices; and cases in the energy industry.

#### ISDS 4168 Supply Chain Management (3)

Planning, implementing, and controlling the efficient, costeffective flow and storage of raw material, in-process products, finished products and related information in a supply channel; resource/material management; supplier strategy; inventory planning and control; just-in-time systems; customer service; logistics and interfaces with other functional areas; emphasis on concepts, model development and analysis.

#### ISDS 4180 Business Analysis in Practice (3)

*Prereq.: "C" or better in ISDS 4112; and credit or registration in ISDS 4141.* Contemporary problems encountered by the business analysis professional; emphasis on case analysis and use of business analysis skills and computer technology to solve business problems.

#### ISDS 4244 Information Systems Auditing (3)

*Credit will not be given for this course and ACCT 4244 or ACCT 7244.* The class will focus on the IS Audit process, IT Governance, Systems and Infrastructure Life Cycle Management, Service Delivery and Support, Protection of Information Assets and Business Continuity and Disaster Recovery. Emphasis will be placed on current practices and technologies used in today's IT Audit environment.

# ISDS 7024 Advanced Statistical Analysis for Research I (3)

*Prereq.: proficiency in calculus, linear algebra, basic statistical methods and computer programming.* Methods of statistical inference; statistical estimation; testing hypotheses about single and multiple means and proportions; simple and multiple linear regression; design of simple random, stratified, and cluster samples; extensive use of statistical computer programs.

# ISDS 7025 Advanced Statistical Analysis for Research II (3)

*Prereq.: ISDS 7024 or equivalent. Continuation of ISDS 7024.* Advanced regression analysis; experimental design and analysis of variance; nonparametric methods; multivariate techniques; extensive use of statistical computer programs.

# ISDS 7070 Seminar in Advanced Business Problems (3)

May be taken for a max. of 6 hrs. of credit when topics vary. Special topics in statistics and quantitative methods.

# ISDS 7080 Survey of Information Systems Research (3)

*Prereq.: advanced PhD standing or consent of instructor.* Exploration of current research streams in information systems; relationships of IS to other disciplines; historical overview of the field.

# ISDS 7081 Critical Analysis of Information Systems Research (3)

*Prereq.: advanced PhD standing or consent of instructor.* Development of skills in theory building, research design, writing research papers and evaluating research in the field of information systems.

# ISDS 7103 Survey of Operations Research: Stochastic Methods (3)

Extensions of decision theory, game theory, dynamic programming, Markovian decision processes, reliability models and queuing models; probabilistic methods in operations research.

# ISDS 7150 Emerging Markets Energy Supply Chain Management (3)

*Prereq.: BADM 7120 or permission of instructor.* Emerging markets; global energy supply chain; entrepreneurial opportunities in energy; opportunities in retail global supply chain, product life cycle and global supply chain, energy supplier clusters and emerging markets, and information technology and global supply chain; life-saving supply chain and disaster management; greening the global supply chain; industry studies; and opportunities for the growing Louisiana economy.

### ISDS 7220 Supply Chain Management (3)

*Prereq.: BADM 7120 or equivalent.* Supply chain process analysis and control; critical issues in revolutionizing management of the entire supply chain; system productivity analysis, demand management, inventory management, distribution planning, integration in supply chain; emphasis

on case study, spreadsheets and software applications; network design, warehouse location, outsourcing, global supply chain and information, EDI and DSS technologies in supply chain management; case study and SCM software.

### ISDS 7230 Project Management (3)

*Prereq.: BADM 7120 or equivalent.* Topics of effectively managing projects including setting goals and objectives, project planning, evaluation and review; incentives and qualitative analysis and project accounting; extensive use of cases involving hands-on computer analyses with state-of-the-art project management software.

### ISDS 7301 Analytics I (3)

Introduction to analytics; use of big data in business; value proposition of data in business; data sources; storage and retrieval of data in business; descriptive analytics for business; business intelligence tools; dashboards in business.

### ISDS 7302 Analytics II (3)

*Prereq.: ISDS 7301 or permission of department.* Predictive analytics in business; business cases in predictive analytics; data mining use in business; industry solutions for predictive analytics.

### ISDS 7303 Analytics III (3)

*Prereq.: ISDS 7302.* Prescriptive analytics in business; dimension reduction methods; use of designed experimentation techniques in business; business cases.

#### ISDS 7304 Analytics IV: Design and Analysis of Analytics Projects (3)

*Prereq.: ISDS 7303.* Capstone analytics project; analysis and design of analytics projects; managing analytics projects; lifecycle of analytics projects.

# ISDS 7401 Introduction to Healthcare Informatics and Healthcare Analytics (3)

This course is an introductin to current topics and issues related to healthcare informatics and health analytics including big data in healthcare; developing basic electronic health record applications; assessment of population health; data ethics, security and privacy.

### ISDS 7501 Information Systems (3)

*Prereq.: ISDS 1100 or equivalent.* Contemporary topics in information systems; survey of information system analysis and design; introduction to business data communication; database management systems and knowledge based systems; enterprise-wide systems and information systems control.

# ISDS 7505 Information Technology and Entrepreneurship (3)

*Prereq.*: BADM 7050 or equivalent. Information economy, globalization and outsourcing, information technology-based business opportunities, technological entrepreneurship, entrepreneurial process, entrepreneurial thinking, process of discovering, effectuation, causation, kownledge management, technological intrapreneurship.

### ISDS 7510 Database Management (3)

*Prereq.: BADM 7050.* Analysis, design and implementation of databases based on the relational database model; data modeling using entity-relationship (E-R) diagraming; logical and physical database design; SQL; hardware/software architecture considerations; data and database administration; emerging database technologies and advanced database applications.

#### ISDS 7511 Advanced Database Management (3)

*Prereq.: ISDS 7510 or equivalent.* Decision support systems, online analytical processing, multidimensional data modeling, web-enabled data warehousing, data marts, data mining, knowledge management, Internet business intelligence.

#### ISDS 7520 Network Information Systems (3)

*Prereq.: BADM 7050.* Broad overview of network technologies including protocols, network operating systems and network management; LAN, WAN design; Internet technology; network security.

### ISDS 7530 Information Systems Analysis and Design (3)

*Prereq.:* BADM 7050; ISDS 7510. Both courses may be taken concurrently. Analysis and design of information systems from a management perspective; software development methodology; topics include requirements determination; feasibility determination; project management; evaluation of a software development strategy and application design; modeling using ER diagrams and DFDs; systems implementation.

# ISDS 7535 Information Technology Management (3)

*Prereq.: BADM 7050.* Management of the organization's information technology (IT) resources; planning and management of IT strategy, applications; hardware/software infrastructure, information resources, and IT professionals; organization and governance of the IT function, IT policies and standards, measurement of IT investments and returns and deployment of new information technologies.

#### **ISDS 7540 Electronic Commerce (3)**

*Prereq.: BADM 7050.* Use of information technology and the Internet in creating new forms of business organization; creating a marketspace; disintermediation/ reintermediation; and virtual organization.

#### ISDS 7550 Enterprise Systems (3)

*Prereq.: BADM 7050.* Study of the broad area of Integrated Enterprise-wide Systems; emphasis on features and capabilities of enterprise systems and their related technologies, the methodologies used to implement these systems in organizations and the implications of their deployment in organizations.

# ISDS 7560 Social and Organizational Issues in MIS (3)

*Prereq.: BADM 7050.* Impact of electronic communities on organizations; implications of design choices on business; ethical considerations.

#### ISDS 7910 Contemporary Issues in Production/Operations Management (3)

Prereq.: advanced PhD standing or consent of instructor. May be taken for a max. of 9 hrs. of credit when topics vary. Philosophical foundations and con-temporary issues in production/operations management.

# ISDS 7920 Contemporary Issues in Management Information Systems (3)

Prereq.: advanced PhD standing or consent of instructor. May be taken for a max. of 9 hrs. of credit when topics vary. Philosophical foundations and contemporary issues in management information systems.

# ISDS 7950 Research Seminar in Information Systems Topics (3)

May be taken for a max. of 6 sem. hrs. of credit when topics vary. Required for all PhD students. Contemporary research and critical issues in information systems.

#### ISDS 7990 Project (3-6)

Prereq.: permission of instructor. Pass-fail grading. May be taken for a max. of 6 hrs. of credit.

ISDS 8000 Thesis Research (1-12 per sem.) "S"/"U"grading.

#### **ISDS 8900 Pre-dissertation Research (1-9)** *May be repeated for credit.*

**ISDS 9000 Dissertation Research (1-12 per sem.)** *"S"/"U"grading.* 

### Italian

#### ITAL 1001 Elementary Italian (4)

This is a General Education course. *Supplementary work in language laboratory. Native speakers of Italian will not receive credit for this course.* Basic lexicon and structure of Italian; emphasis on communicative language use.

#### ITAL 1002 Elementary Italian (4)

This is a General Education course. *Prereq.: ITAL 1001.* Supplementary work in language laboratory. Native speakers of Italian will not receive credit for this course. Basic lexicon and structure of Italian; emphasis on communicative language use.

### ITAL 2002 Italian for Travelers (3)

Does not count toward satisfying the foreign language requirement for undergraduates. Basic communication patterns; practical everyday vocabulary; exercises in comprehension and conversation.

### ITAL 2101 Intermediate Italian (3)

This is a General Education course. *Prereq.: ITAL 1002.* Supplementary work in language laboratory. Native speakers of Italian will not receive credit for this course. Basic lexicon and structure of Italian; emphasis on communicative language use.

#### ITAL 2102 Intermediate Italian (3)

This is a General Education course. *Prereq.: ITAL 2101.* Supplementary work in language laboratory. Native speakers of Italian will not receive credit for this course. Basic lexicon and structure of Italian; emphasis on communicative language use.

#### ITAL 2155 Readings in Italian Literature (3)

This is a General Education course. *Prereq.: ITAL 2102. Native speakers of Italian will not receive credit for this course.* Readings in contemporary and older literature of Italy; emphasis on comprehension as well as oral and written expression.

#### ITAL 3001 Italian Culture and Civilization (3)

Taught in English. Italian culture and civilization from the medieval era to present.

#### ITAL 3058 Advanced Oral Communication (3)

*Prereq.: ITAL 2102.* Enhancement of oral communication skills through debating contemporary issues.

#### ITAL 3071 Survey of Italian Literature (3)

*Prereq.: ITAL 2155.* Development of Italian literature from the beginnings to the Renaissance.

#### ITAL 3072 Survey of Italian Literature (3)

*Prereq: Prereq: ITAL 2155. Continuation of ITAL 3071.* Principal authors and literary movements from the Renaissance to the present.

#### ITAL 3502 Special Topics in Italian Cinema (3)

Also offered as SCRN 3502. May be taken for 6 sem. hrs. of credit when topics vary. In-depth study of various aspects of Italian cinema from different periods.

#### ITAL 4051 Dante (3)

Dante, with emphasis on the Inferno.

### ITAL 4100 Special Topics in Italian Studies (3)

*Prereq.:* 3000-level Italian course or equivalent. May be taken for a max. of 6 sem. hrs. of credit when topics vary. Study of various aspects of Italian culture and literature from different periods.

#### ITAL 4915 Independent Work (1-3)

May be taken for a max. of 3 sem. hrs. credit. Permission of department required. Readings in Italian literature directed by a senior faculty member.

### Japanese

JAPN 3801 Traditional East Asian Literature (3) See CHIN 3801.

### **Kinesiology: Basic Activity Courses**

All basic activity courses are offered on a pass/fail grade basis. Students in these classes must furnish and wear clothing suitable to the activity.

KIN 1124 Tennis (1 sem. hr.) Pass/fail grading.

KIN 1125 Golf (1 sem. hr.) Pass/fail grading.

KIN 1129 Badminton (1 sem. hr.) Pass/fail grading.

KIN 1132 Ballroom Dance (1 sem. hr.) *Pass/fail grading.* 

KIN 1135 Golf for Business and Life (1 sem. hr.) *Pass/fail grading.* 

KIN 1142 Conditioning Exercises (1 sem. hr.) *Pass/fail grading*.

KIN 1144 Aerobic Dance (1 sem. hr.) *Pass/fail grading.* 

KIN 1146 Weight Training (1 sem. hr.) *Pass/fail grading.* 

KIN 1151 Racquetball (1 sem. hr.) Pass/fail grading.

KIN 1152 Tai Chi I (1 sem. hr.) Pass/fail grading.

KIN 1155 Jogging (1 sem. hr.) Pass/fail grading.

KIN 1156 Outdoor Living Skills (1 sem. hr.) Pass/fail grading. American Red Cross Standard First Aid Certificate recommended.

KIN 1157 Aerobic Swimming (1 sem. hr.) Prereq.: intermediate swimming skills. Pass/fail grading.

#### KIN 1158 Canoeing (1 sem. hr.)

Prereq.: must be able to swim 50 yards with a personal flotation device; tread water for one minute and swim 50 yards without a personal flotation device. Pass/fail grading.

### KIN 1224 Tennis (1 sem. hr.)

Pass/fail grading.

KIN 1244 Aerobic Dance (1 sem. hr.) *Pass/fail grading.* 

KIN 1246 Weightlifting (1 sem. hr.) *Pass/fail grading.* 

## KIN 1251 Racquetball (1 sem. hr.) *Pass/fail grading.*

### KIN 1255 Jogging (1 sem. hr.) *Pass/fail grading.*

KIN 1257 Aerobic Swimming (1 sem. hr.) *Pass/fail grading.* 

### KIN 1336 Swimming (1 sem. hr.) Pass/fail grading.

# KIN 1338 Water Safety Instructor's Course (1 sem. hr.)

Prereq.: valid Advanced Lifesaving Certificate. Pass/fail grading.

### **Kinesiology: Professional Courses**

### KIN 1405 Track and Field (1)

For kinesiology majors or minors. 3 hrs. lab.

### KIN 1406 Basketball (1)

For kinesiology majors or minors. 3 hrs. lab.

### KIN 1407 Softball (1)

For kinesiology majors or minors. 3 hrs. lab.

### KIN 1408 Volleyball (1)

For kinesiology majors or minors. 3 hrs. lab.

#### KIN 1409 Flag Football (1)

For kinesiology majors or minors. 3 hrs. lab.

#### KIN 1410 Field Sports (1)

For kinesiology majors or minors. 3 hrs. lab.

# KIN 1600 Individual Wellness and Public Health (3)

This is a General Education course. Content and theory related to basic health information; critical health issues; economic, political and cultural influences on health and wellness; improving and maintaining optimal health and wellness.

# KIN 1801 Movement Fundamentals for Physical Activity (2)

For kinesiology majors. 1 hr. lecture; 2 hrs. lab. Movement concepts associated with space and time and how these concepts can be organized into a learning environment.

### KIN 1802 Individual/Lifetime Activities (2)

For kinesiology majors and minors. 1 hr. lecture; 2 hrs. lab. Identification, analysis and practice of skills, techniques and fundamental concepts associated with lifetime activities.

### KIN 1803 Team Activities (2)

For kinesiology majors and minors. 1 hr. lecture; 2 hrs. lab. Identification, analysis and practice of skills, techniques and fundamental concepts associated with team activities.

#### KIN 1804 Aerobic and Strength Activities (2)

For kinesiology majors and minors. 1 hr. lecture; 2 hrs. lab. Major concepts of aerobic and strength training including safety, technique, age appropriate activities and training principles.

### KIN 1999 Special Topics (1)

*Pass/fail grading. May be taken for a max. of 4 sem. hrs. credit when topics vary. 3 hrs. lab.* Identification, analysis and practice of skills and techniques fundamental to sports; rules, strategies and appropriate safety procedures.

#### KIN 2500 Human Anatomy (3)

*Prereq.: BIOL 1201.* Micro and macroscopic study of the human body.

# KIN 2501 History and Philosophy of Kinesiology (3)

Developments in kinesiology and health from ancient times to the present.

#### KIN 2502 Practicum in Sports Studies (3)

*Prereq.: For students minoring in sports studies. Pass-fail grading. Credit will not be given for both this course, KIN 2513, and KIN 2999.* Observation and practical application in a sport or sport-related setting. Students work in a professional capacity under the guidance of an on-site coordinator.

#### KIN 2504 Principles of Conditioning (3)

2 hrs. lecture; 2 hrs. lab. Methods and concepts of training and conditioning; physical fitness activities and current trends; participation in a fitness training lab including fitness assessments and training methods designed to promote fitness; planning physical fitness programs for community and commercial organizations, education institutions and social agencies.

#### KIN 2509 Medical Terminology for Kinesiology (3)

*Majors only or permission of instructor*. In-depth introduction to medical terminology, with a focus on body systems, medical specialities and medical communication.

## KIN 2510 Introduction to Sport and Leisure Administration (3)

Introduction to the academic and professional field of sport administration.

### KIN 2511 Sports Officiating (2)

*Prereq.: proficiency in sports indicated. 1 hr. lecture; 2 hrs. lab.* Rules interpretation and techniques of officiating basketball, volleyball and softball.

### KIN 2512 Classroom Culture and Organization (3)

2 hrs. lecture; 2 hrs. lab. The social learning environment and organization of the physical education classroom. Emphasis on behavior management, individual and group motivation and integration of technology.

# KIN 2513 Professional Development in Sport Administration (3)

*Credit will not be given for this course and KIN 2502.* Designed to provide an opportunity for the student to grow professionally; to enhance the educational learning process through hands-on opportunities; and to gain an appreciation of the role, duties, responsibilities, and nature of the work in the sport industry.

#### KIN 2516 The Coaching of Basketball (2)

*1 hr. lecture; 2 hrs. lab.* Principles and techniques of coaching basketball; organization and administration of practice and various levels of competition.

#### KIN 2518 The Coaching of Volleyball (2)

*1 hr. lecture; 2 hrs. lab.* Techniques of coaching volleyball; organization and administration of practice and various levels of competition.

### KIN 2525 Practicum in the Coaching of Individual and Team Sports (1-3)

May be taken for credit when sports vary. 3-9 hrs. lab.

### KIN 2526 Psychology of Coaching (3)

Psychological perspectives applied to the athletic situation; coaching personalities, athletic personalities, psychological injuries, motivation, mental preparation, relaxation techniques and stereotypes in athletics.

#### KIN 2530 Sport in Society (3)

Interdisciplinary study of sport as a mirror of society reflecting the dynamics of human social existence; emphasizes process through which individuals formulate their identity from youth to old age.

# KIN 2540 Introducing Physical Education for Individuals with Disabilities (3)

Principles and practices of physical activity opportunities for people with disabilities; laws affecting those with disabilities; motor abilities of individuals with disabilities; adjusting programs to suit the needs and interests of these individuals.

### KIN 2577 Health and Physical Education for the Elementary School (3)

*2 hrs. lecture; 2 hrs. lab.* Basic principles and concepts of a healthy lifestyle; nutrition, fitness, exercise; study and analysis of movement.

#### KIN 2600 Human Sexuality (3)

Historical, semantic, religious, social, medical and comparative cultural aspects of human sexuality from childhood to senility.

#### KIN 2601 First Aid (1)

1 hr. lecture; 1 hr. lab.

### KIN 2603 Consumer Health (3)

Major consumer health problems; selecting, purchasing and financing health services and products.

#### KIN 2604 Issues in Mental Health (3)

Issues in mental health; stress, depression, alienation, family violence, suicide, death and dying.

### KIN 2900 Independent Study (1-3)

*Prereq.: Permission of instructor. May be taken for a max. of 6 sem. hrs. of credit.* Reading, research or field work on selected topics.

## KIN 2999 Internship in Leisure, Recreation and Sport (3)

May be repeated for a max. of 6 sem. hrs. of credit. Gaining first-hand knowledge and practical handson experience in recreational or sport settings.

### KIN 3100 Introduction to Robotics (3) *See ENGR 3100.*

### KIN 3500 Human Anatomy Laboratory (1)

*Prereq.: KIN 2500 or consent of instructor. Computer based study. 2 hrs. lab.* Interactive software of the human body; gross anatomy with emphasis on muscle, bone, nerve and blood vessels.

# KIN 3502 Tests and Measurements in Kinesiology (3)

2 hrs. lecture; 2 hrs. lab. Principles of measurement and evaluation in kinesiology and health; emphasis on criteria for selection and evaluation of tests and techniques of testing; analyzing and interpreting motor performance and cognitive test scores.

# KIN 3507 The Olympic Games: Ancient and Modern (3)

Origins, growth, politicalization and governance of the games.

#### KIN 3513 Introduction to Motor Learning (3)

Motor skills learning principles that can be applied to instructional and rehabilitation situations; psychological and physiological characteristics that influence skill learning; behavioral changes related to the stages of skill learning; the influence of various types of practice conditions on skill learning.

#### KIN 3514 Biomechanical Basis of Kinesiology (3)

*Prereq.: MATH 1022, KIN 2500, PHYS 2001 or equivalent. Education majors only.* Anatomical and mechanical analysis of human movement; emphasis on structure and function of bone and muscle, statics, dynamics, kinematics, kinetics and projectile motion.

### KIN 3515 The Physiological Basis of Activity (3)

*Prereq.: KIN 2500, KIN 2504; BIOL 2160.* Basic physiological concepts of the muscular, metabolic, cardiovascular and circulorespiratory systems; behavior of each system in relation to exercise; determination of normal and abnormal physical responses to exercise; development of a philosophy of scientific inquiry.

#### KIN 3519 Cadaver Prosection (1)

*Prereq.: Grade of "B" or better in* KIN 2500, for Kinesiology majors and permission of School. Active review of human anatomical structures using cadaveric tissues.

### KIN 3525 Laboratory Techniques in Exercise Physiology (1)

*Prereq.: credit or registration in KIN 3515. 2 hrs. lab.* Laboratory sessions examining the physiological effect of different types of exercise on the functions of the human body.

#### KIN 3534 Scientific Basis for Exercise (3)

*Prereq.: KIN 3515. 2 hrs. lecture; 2 hrs. lab.* Historical development of chronic disease risk factors; contraindications and valid uses of exercise prescription.

#### KIN 3535 Exercise Testing and Prescription (3)

Prereq.: KIN 3525 and credit or concurrent enrollment in KIN 3534. For students in the fitness studies concentration. 2 hrs. lecture; 2 hrs. lab. Theory and practice of fitness testing, exercise prescription, health promotion and related concerns.

### KIN 3541 Severe Disabilities and Physical Activity (3)

*Prereq.: EDCI 2700 and KIN 2540. Substantial observations in schools required.* Focus on individuals with severe intellectual, behavioral, physical and sensory disabilities.

#### KIN 3605 Health and the Aging Process (3)

Health conservation of human resources; emphasis on understanding attitudes and practices related to health in the aging process.

### KIN 3608 Communicable and Noncommunicable Diseases (3)

Etiology, prophylaxis and control of communicable and noncommunicable diseases and impairments; cancer, diabetes, and cardiovascular, respiratory and sexually transmitted diseases.

# KIN 3609 Methods of Teaching Wellness Education (3)

*Prereq.: KIN 2512. 2 hrs. lecture; 2 hrs. lab.* Requisite knowledge and skills for successful teaching of wellness education in K-12 settings.

# KIN 3660 The Holistic Health Approach to Stress (3)

Sources of stress; evaluation of stress-related diseases; techniques for promoting stress reduction; prevention of stress-related diseases.

#### KIN 3800 Ethical and Legal Issues in Sport (3)

Introduction to basic ethical and legal principles required to successfully address managerial situations that arise in sport industry settings; ethical concepts and theories that provide the foundation for the rendering of comprehensive decisions, including but not limited to issues involving Title IX, the use of drugs, antitrust, labor, intellectual property and religion.

#### KIN 3801 Sport Strategies and Planning (3)

*Prereq.: KIN 2513.* Principles and procedures involved with strategies and planning of professional and intercollegiate athletics.

#### KIN 3802 Program and Event Management (3)

*Prereq.: KIN 2513.* Basic concepts pertaining to the production of amateur, professional and recreational sporting events.

#### KIN 3804 Financial Issues in Sport (3)

*Prereq.: ACCT 2000.* Application of sound financial concepts in sport management and sport operation.

#### KIN 3805 Sales and Sponsorship in Sport (3)

*Prereq.:* KIN 3801. Focuses on the sales and sponsorship aspect of sport management through an introduction to the basic core concepts, presented with actual models relevant to working in sales and sponsorship in the competitive sport environment, and actual sales and sponsorship experience working with a sport organization.

### KIN 4100 Industrial Robotics (3) *See ENGR 4100.*

See ENGR 4100.

**KIN 4103 Assistive Robotics (3)** See ENGR 4103.

KIN 4200 Autonomous Vehicles (3) *See ENGR* 4200.

KIN 4290 Sports Economics (3) *See ECON 4290.* 

#### KIN 4501 Special Topics in Kinesiology (3)

May be repeated for a max. of 6 sem. hrs. of credit when topics vary. For students interested in additional study in specific aspects of kinesiology.

### KIN 4502 Imaging Techniques in Research (3)

Prereq.: Grade of B or better in KIN 2500 and KIN 3513, and consent of instructor. May be repeated for a max. of 6 sem. hrs. 1 hrs. lecture; 5 hrs. lab. Knowledge about imaging techniques and its application in research.

# KIN 4505 Practicum in Human Movement Science (3)

Prereq.: enrollment in the College of Human Sciences & Education; at least junior standing; KIN 3514, and permission of School. Pass/fail grading. May be taken for a max. of 6 sem. hrs. of credit. 6 hrs. lab. Observation and practice of skills, techniques and protocols of patient care within local clinics, hospitals, skill nursing facilities, development disability centers and private practices.

### KIN 4509 Sports Supplements (3)

Introduction to federal regulations which enable supplements to be marketed; methods used to evaluate the benefits of supplements and processes used to analyze specific supplements used in sports.

# KIN 4511 Techniques and Methods of Teaching Physical Education (3)

Prereq.: KIN 2504 and competency in four activities. Concurrent enrollment in KIN 4516. Education Majors only. 2 hrs. lecture; 3 hrs. lab. Microteaching and field experience required. Current teaching methods and materials in physical education, teaching styles, aids and formulation of lesson and unit plans.

### KIN 4512 Lifespan Motor Development (3)

Analysis of changes in motor behavior from infancy to older adulthood; current theoretical perspectives; current issues; correlates of motor development.

### KIN 4513 Facilities Management (3)

Preventive maintenance, facility planning, event administration, box office management, house and ground management, systems management, marketing, finance and personnel administration.

### KIN 4515 Sports Seminar (3)

Trends and issues related to the development and maintenance of athletic abilities in a variety of sports.

# KIN 4516 Curriculum Construction in Physical Education (3)

*Concurrent enrollment in KIN 4511. Education Majors only.* Curriculum construction and program content for elementary and secondary schools.

#### KIN 4517 Sports Administration (3)

Policies and practices in the administration of athletic programs in academic settings.

## KIN 4518 Governance and Policy Development in Sport (3)

Analysis of governance structures of sport organizations and implications for policy development.

### KIN 4519 Cadaver Dissection (3)

*Prereq.: Grade of A in* KIN 2500 or KIN 3519, for Kinesiology majors and permission of School. Active dissection of human cadavers.

# KIN 4520 Psychosocial Aspects of Physical Activity (3)

*Prereq.: senior or graduate standing.* Psychological and sociological perspectives of physical activity; theories and research related to sport and exercise behavior; and psychological factors that influence involvement and performance in physical activity settings.

# KIN 4525 Human Anatomy and Functional Impairment (3)

*Prereq.: KIN 2500, KIN 3500 or consent of instructor.* Anatomy of selected systems and the mechanisms and effects of impairment.

# KIN 4526 The Physiology of Endurance Training (3)

*Prereq.: by permission of instructor. 2 hrs. lec., 2 hrs. lab.* Exploration of the physiological responses to endurance training. Application of physiological principles in a laboratory setting by performing standard tests and training for an endurance event.

#### KIN 4530 Essentials of Sport Performance Training (3)

*Prereq.: KIN 2500, KIN 2504, KIN 3515, or permission of instructor.* Basic principles and methods of testing, training, and programming related to sports performance.

### KIN 4538 Practicum in Applied Fitness (6)

*Prereq.: KIN 3534, KIN 3535. Pass-fail grading. For kinesiology majors. 12 hrs. lab.* Practical application of exercise testing, exercise prescription and leadership.

## KIN 4540 The Physical Education Curriculum for Children with Disabilities (3)

*Prereq.: KIN 3541.* Curriculum needs, implementation and evaluation, using the Louisiana State Regulations and P. E. Needs Assessment.

## KIN 4571 Neuromotor Control of Human Movement (3)

*Prereq.: KIN 2500, senior standing or permission of instructor.* Muscle dynamics; sensory and motor neural pathways; subcortical reflexes; supraspinal mechanisms; behavioral issues.

# KIN 4575 Addressing Diversity and Cultural Issues in Physical Activity (3)

*Concurrent enrollment in EDCI 4630.* Critical theoretical perspectives of sport and physical education in American society.

### KIN 4601 Community Health Issues (3)

Community health aspects and implications of tobacco, alcohol, drugs, venereal disease and other communicable diseases; other community health problems.

# KIN 4605 Habituating and Addictive Drugs in Our Culture (3)

*Prereq.: KIN 1600 and senior or graduate standing.* Harmless, harmful, useful and useless chemical substances that affect physiological well-being and behavior or mood; interaction of psychological, sociological and physiological components.

### KIN 4606 Introduction to Health Promotion (3)

*Prereq.: PSYC 2000, junior standing. Recommended: PSYC 3083.* Psychological and behavioral perspectives of health promotion; theories and research related to health behavior change; analysis of effective interventions designed to promote health behavior change.

### KIN 4800 African Americans in Sport (3)

Also offered as AAAS 4800. African American experiences in sport, including a survey of the history of African Americans in sport and its larger effect on African American culture in general; introduction to the historical, sociological, economic, psychological, anatomical and physiological aspects of sport unique to African Americans.

## KIN 4835 Practicum in Sport and Leisure Administration (6)

Prereq.: Sport Administration majors only; students should be within two semesters of completing degree requirements or obtain permission of the department. Pass-fail grading. Practical applications of administrative techniques in a sport, leisure or sport-related setting.

#### KIN 4900 Independent Study (1-3)

*May be taken for a max. of 6 sem. hrs. of credit.* Open to advanced undergraduate or graduate students. Reading, research and/or field work on selected topics.

# KIN 7420 Motor Development Across the Lifespan (3)

Typical and atypical motor development across the lifespan (infancy through older adulthood); implications for skill learning and functional ability; assessments and interventions.

#### KIN 7500 Practicum in Sport Management (3,6,9)

Prereq.: a minimum of 21 sem. hrs. from the sport management MS program, a letter of agreement from prospective on-site supervisor and consent of faculty advisor. Practical application of management techniques in a sport or sport-related setting; students work in a professional capacity for 10-30 hrs. per week during the semester under the guidance of the on-site supervisor.

### KIN 7501 Advanced Research Methods (3)

Analysis of multivariate research methods and statistical analysis used in kinesiology research.

# KIN 7502 Curriculum Construction in Physical Education (3)

Contemporary educational trends in curriculum theory, issues, philosophical orientation and models derived from research and experience.

### KIN 7503 Dimensions of Aging (3)

Focus on physical, cognitive and emotional aspects of biological aging; role of physical activity and lifestyle issues and their interaction with chronological aging and functional ability.

#### KIN 7505 Problems in Kinesiology (3)

May be taken for a max. of 6 hrs. of credit when topics vary. Consent of instructor.

### KIN 7506 Practicum in Pedagogy (3,6,9)

*Pass-fail grading.* Practical application of pedagogical techniques and methods in a physical education or physical education-related setting; students work in a professional capacity for 10-30 hours per week during the semester under the guidance of an on-site supervisor and/or faculty member.

#### KIN 7508 Analysis of Human Movement (3)

Mechanisms involved in the production of human movement and the techniques available for scientific analysis of such movement.

### KIN 7510 Motor Learning (3)

Cognitive and motor processes influencing the learning of motor skills; emphasis on assessing learning, changes during learning, attention, augmented feedback, transfer of learning and practice conditions, with implications for a variety of skill instruction and rehabilitation contexts.

# KIN 7511 Administrative Problems in Kinesiology (3)

Organization and management theory and techniques for administration of programs in educational and fitness settings.

#### KIN 7512 Motor Control (3)

*Prereq.: consent of instructor.* Neurophysiological and behavioral issues in control of human movement; emphasis on contrast between ecological and constructionist approaches.

# KIN 7513 Seminar in Physical Education Professional Preparation (3)

Issues and trends in physical education; emphasis on undergraduate and graduate professional preparation.

### KIN 7514 Pedagogy in Physical Education (3)

*Prereq.: KIN 7502 and admission to the doctoral program.* Theory and research relating to systematized instruction in physical education.

## KIN 7515 Theories of Achievement Motivation in Physical Activity (3)

Theories of achievement motivation as they apply in a variety of physical activity settings including motor skill acquisition, sport, exercise behavior and rehabilitation.

# KIN 7516 Organizational Behavior and Development in Sport (3)

*Prereq.: KIN 4517 or permission of instructor.* Analysis of organizations in the sport industry using theoretical and practical applications; examining the cultural and environment within which the sport organization operates.

#### KIN 7517 Advanced Topics in Motor Control (3)

Prereq.: KIN 7512 or consent of instructor. May be repeated for a max. of 6 sem. hrs. when topics vary. Selected topics linking advanced motor control topics across disciplines, medicine and research.

### KIN 7518 Social Issues in Sport (3)

Examination of the social construction of sport and the systemic issues connected to contemporary sport.

#### KIN 7519 Financial Issues in Sport (3)

An in-depth examination of public and private financing options for professional, intercollegiate, interscholastic and recreational/commercial sport.

### KIN 7520 Motor Development (3)

2 hrs. lecture; 2 hrs. lab. Psychomotor development of children; implications for skill learning; analyzing and planning motor development research; motor development in special children; research on youth sports; evaluation and assessment; and perceptual-motor development.

### KIN 7523 Theories of Motor Skill Acquisition (3)

*Prereq.: KIN 7510 and KIN 7520. For PhD students in motor learning or motor development.* Issues in motor control and learning, i.e., central and peripheral mechanisms, theories of motor learning, motor programs and short-term memory.

### KIN 7524 Sport Law (3)

A study of legal issues affecting the delivery of sport services and liability in sport-related activities.

### KIN 7525 Children and Sport (3)

*Open to graduate students from any area.* Children's involvement in organized sports; understanding of the present structure of youth sports; research in child development, training, injuries, social psychology, skill acquisition and coaching behavior; implications for children in sport.

#### KIN 7526 Advanced Topics in Biomechanics (3)

*Prereq.: consent of instructor. May be repeated for a max. of 6 sem. hrs. when topics vary.* Selected topics linking advanced biomechanics topics across disciplines, rehabilitation and research.

### KIN 7528 Sport Psychology (3)

Problems of several areas of social psychology related to sport; research methodology and theories.

### KIN 7530 Exercise Physiology (3)

Physical, chemical and environmental factors influencing physical performance; bioenergetics, cardiovascular and respiratory adjustments to exercise; research relevant to conditioning and physiological responses to exercise.

#### KIN 7532 Advanced Topics in Motor Learning (3)

*Prereq.: consent of instructor. May be repeated for a max. of 6 sem. hrs. when topics vary.* Selected topics linking motor learning concepts across different disciplines in academic and applied settings.

### KIN 7534 Exercise in Health and Disease (3)

Contraindications and valid uses of exercise in mediating risk factors.

#### KIN 7535 Neuromuscular Aspects of Exercise (3)

*Prereq.: KIN 7530.* Effects of exercise on muscle cell structure and function; neuromuscular integration and neural function in exercise.

#### KIN 7536 Cardiovascular and Respiratory Function in Exercise (3)

*Prereq.: KIN 7530. 2 hrs. lecture; 2 hrs. lab.* Mechanics of cardiovascular and respiratory function related to exercise.

#### KIN 7537 Exercise and Environment (3)

*Prereq.: KIN 7530. 2 hrs. lecture; 2 hrs. lab.* Effects of environmental conditions on performance of various types of exercise.

#### KIN 7538 Practicum in Cardiac Rehabilitation (6)

Prereq.: KIN 7530, KIN 7534. Pass-fail grading. Minimum on-site requirement is 20 hours per week. Important for exercise specialist, exercise leader or graded exercise technician certification. Involvement in the practical application of exercise testing, exercise prescription and exercise leadership for cardiac patients.

# KIN 7539 Laboratory Techniques in Exercise Physiology (3)

Prereq.: KIN 7530 exercise physiology and college chemistry recommended. 1 hr. lecture, 4 hrs. lab Laboratory techniques in exercise physiology; principles of metabolic measurement and assay procedures for quantification of dynamic changes in blood chemistry during exercise.

#### KIN 7544 Current Topics in Sport Management (3)

An examination of the current topics and issues within the sporting environment from a variety of perspectives, including but not limited to, sociological, historical, economic, and managerial.

#### KIN 7545 Economic Issues in Sports (3)

In-depth examination focusing on the economic issues of professional, intercollegiate, and recreational sport around the world; examining specific areas such as competitive balance of sports leagues, discrimination, and the demand for sport.

#### KIN 7546 Exercise Metabolism (3)

*Prereq.: KIN 7530.* The study of the interactions between metabolism and substrate utilization, and how these factors impact work and exercise performance.

### KIN 7547 Advanced Topics in Exercise Physiology (3)

*Prereq.: consent of instructor. May be repeated for a max. of 6 semester hours of credit when topics vary.* Selected topics linking advanced exercise physiology topics across disciplines, rehabilitation, and research.

#### KIN 7550 Advanced Exercise Physiology (3)

*Prereq.: KIN 7530 2 hrs. lecture; 2 hrs. lab; college chemistry, mathematics, physics recommended.* Quantitative approach to both systematic and cellular control during exercise.

#### KIN 7574 Qualitative Research in Kinesiology (3)

Introduction to qualitative methodologies and research in Kinesiology.

### KIN 7601 Changing Health Behavior (3)

Motivation and determinants of health behavior; behavior change strategies designed for utilization in individual and group health education programs; promoting innovative health education programs in schools and the community.

# KIN 7602 Social-Ecological Influences on Physical Activity and Health (3)

Application of the social-ecological framework to physical activity and health behaviors.

## KIN 7603 Stress Management and Emotional Health (3)

Principles, theories and coping/relaxation techniques related to stress management and the promotion of emotional health.

### KIN 7612 Neuromuscular Motor Control (3)

Examine neuromuscular organization for production of limb movements; direct and indirect methods for examining neurophysiological processes underlying motor control; electromyography recording and analysis.

#### KIN 7900 Introduction to Research Methods (3)

An introduction to the basic aspects of reading, evaluating and writing research. Topics include problem selection, literature review, instrumentation, methodology and types of research in physical activity.

### KIN 7999 Seminar in Selected Topics in Kinesiology (1-3)

May be taken for a max. of 6 sem. hrs. credit. Topics vary.

### KIN 8000 Thesis Research (1-12 per sem.)

"S"/"U" grading.

#### KIN 8900 Independent Research (1-9)

Pass-fail grading. May be taken for a max. of 9 sem. hrs. credit.

KIN 9000 Dissertation Research (1-12 per sem.) "S"/"U" grading.

### Landscape Architecture

#### LA 1101 Landscape Representation I (3)

*6 hrs. studio.* Freehand and mechanical representation and observational skills used in design conceptualization; emphasis on the development of a vocabulary, basic skills and techniques of landscape architecture representation.

#### LA 1102 Landscape Representation II (3)

*Prereq.: LA 1101. 6 hrs. studio.* Developing skills in computer-aided visualization and illustrative documentation of landscapes; introduction to digital imaging, drafting and photo manipulation.

# LA 1201 Introduction to Landscape Architecture (3)

This is a General Education course. Introduction to the profession of landscape architecture for non-majors; overview of professional concerns and responsibilities; awareness of natural and planned landscapes, as well as, the importance of using land in an efficient and attractive manner.

#### LA 1203 Views of the American Landscape (3)

This is a General Education course. Concepts, patterns and themes that shape human attitudes and activities concerning the American landscape; natural systems as links between managed landscapes and built environments; environmental and conservation ethics.

#### LA 1206 Gardens of the World (3)

Exploration of the physical, social and environmental factors which contribute to the development of gardens from historical to contemporary perspectives.

#### LA 2001 Landscape Design I (6)

*Prereq.: LA 1102. Consent of school director. 12 hrs. studio.* Introduction to two-and three-dimensional design; spatial sequence, meaning and dynamic change; application to a simple design.

#### LA 2002 Landscape Design II: Site Design (6)

*Prereq.: LA 2001 or equivalent. 12 hrs. studio.* Development of landscape design processes as applied to small-scale projects; introduction of earth structures, construction materials and plants.

#### LA 2101 Landscape Representation III (3)

*Prereq.: LA 1101 and LA 1102. 6 hrs. studio.* Advanced representation techniques developing skills of visualization and representation using freehand, mechanical and digital imaging in design projects.

### LA 2201 Landscape History I (3)

Development of earliest landscape traditions; relationship of humans to landscape in major cultural areas of the ancient world; development of landscape traditions in western Europe and America from the 15th to 19th centuries.

# LA 2301 Landscape Technology I: Land Design (3)

Prereq.: MATH 1021 and MATH 1022 or equivalent; and LA 1102 or equivalent; consent of instructor. 2 hrs. lecture; 2 hrs. studio. Introduction to basic surveying for landscape architects; surveying systems and legal land descriptions; introduction to landscape architectural construction systems and the relationship among landform/earth, plants, and structures, topographic mapping conventions, grading design, drainage and water management, roadway design and alignment.

#### LA 2401 Landscape Ecology (3)

*Prereq.: GEOG 2051 and RNR 1001 or equivalent.Class includes field trips.* Application of ecological principles and relationships to resource, recreation and landscape planning, with attention to conservation ethics and legal regulations leading to sustainability of the landscape.

### LA 3001 Landscape Design III: Site Planning and Design (6)

Prereq.: LA 2002 and LA 2101 and LA 2201 or equivalent. Required field trip. Students are responsible for paying travel expenses associated with the course. 12 hrs. studio. Arrangement of buildings, circulation and other landscape design elements; emphasis on earthwork and drainage.

## LA 3002 Landscape Design IV: Community Design (6)

*Prereq.*: LA 2101 and LA 3001. *12 hrs. studio*. Landscape planning and design at the community and neighborhood scale; emphasis on relationships of uses, transportation infrastructure, green infrastructure, public services and a mix of housing and commercial types.

#### LA 3201 Landscape History II (3)

*Prereq.: LA 2201.* Major landscape movements in the 19th and 20th centuries; theory and aspects of contemporary practice of landscape architecture.

# LA 3301 Landscape Technology II: Grading, Drainage and Roads (3)

*Prereq.:* LA 2301 or equivalent; consent of instructor. 2 hrs. lecture; 2 hrs. studio. Advanced grading and drainage with emphasis on aesthetic aspects of grading and best management practices and sustainability, landscape architectural systems and infrastructures including advanced roadway design and alignment.

# LA 3302 Landscape Technology III: Design Detailing (3)

*Prereq.: LA 3301 or equivalent; consent of instructor. 2 hrs. lecture; 2 hrs. studio.* Relationship between design and implementation through construction processes, detailing as an extension of design, landscape architectural materials, basic structural theory, detailing and structures, technical specifications as a means of enuring design intent.

#### LA 3401 Plant Materials I (3)

*Prereq.: LA 2401 for undergraduate students. 1 hr. lecture; 4 hrs. lab.* Identification and study of plant materials with specific recognition of the visual and ecological characteristics of plants used in landscape design.

#### LA 3402 Plant Materials II (3)

*Prereq.: LA 3401. 1 hr. lecture; 4 hrs. lab.* Continuation of *LA 3401* with the inclusion of basic principles of planting design.

#### LA 4001 Landscape Design V: Landscape Planning and Development (6)

Prereq.: LA 3002 and LA 3302. Required field trip. Students are responsible for paying travel expenses associated with the course. 12 hrs. studio. Landscape planning and design from the regional to the site development scale; emphasis on generating planning and design strategies for urbanization and development that are informed by an understanding of the ecology and culture of the region and based on principles of sustainability.

#### LA 4002 Landscape Design VI: Specialization (6)

Prereq.: LA 4001 Credit will not be given for this course and LA 4003. 12 hrs. studio. Studio projects addressing various aspects of landscape architecture.

#### LA 4003 Landscape Architecture Internship (6)

Prereq.: Completion of all 3000-level Landscape Architecture courses and consent of School. Pass-fail grading. Credit will not be given for both this course and LA 4002. At least 35 hours of work per week supervised by a licensed landscape architect or professional in an approved firm or agency.

#### LA 4008 Advanced Topics Studio (6)

Prereq.: LA 3002, LA 7041 or consent of instructor. Required field trip. Students are responsible for paying travel expenses related to the course. Advanced topics in landscape architecture addressing research and projects in the profession.

### LA 4101 Advanced Digital Representation (3)

*Prereq.: LA 1102, LA 2101 or equivalent.* Advanced techniques in digital representation, such as 3-D modeling, terrain modeling, animation, advanced imaging and rendering.

# LA 4201 Theory and Methods of Landscape Planning (3)

2 hrs. lecture; 2 hrs. lab. Principal theoretical literature in landscape analysis and planning; application of theories and methods; basic skills in the use of GIS, global positioning systems (GPS) and remote sensing/image processing technology.

# LA 4301 Landscape Technology IV: Specialization (3)

*Prereq.: LA 3302 or equivalent. 2 hrs. lecture; 2 hrs. studio.* Specialty topics in landscape architecture construction and design implementation.

# LA 4501 Field Studies in Landscape Architecture (3)

Pass-fail grading. May be taken for a max. of 6 hrs. of credit. Elective field trip. Students are responsible for paying travel expenses associated with this course. Field trip to landscape architectural office, projects, historic sites and schools throughout the U.S. and abroad.

# LA 4502 Independent Study in Landscape Architecture (3)

*Prereq.: consent of School director. Independent study proposals must be pre-approved by the supervising faculty member.* Program of individual study under faculty guidance, including auditing lectures, reading and exercises as needed to develop skills in methods of inquiry related to the area of specialty.

# LA 4503 Advanced Projects in Landscape Architecture (3)

*Prereq.: consent of instructor.* Faculty directed projects for small groups of students investigating specific areas of research and practice.

# LA 4504 Advanced Elective in Landscape Architecture (3)

*Prereq.: permission of instructor.* Research practice and application in landscape architecture; small groups will use lectures, discussions, presentations and other formats to explore advanced topics.

# LA 4505 Special Studies in Landscape Architecture (1-2)

*Prereq.: consent of School director.* Program of study under faculty guidance. Independent study proposals must be pre-approved by supervising faculty member and the School director.

# LA 5001 Landscape Design VII: Urban Landscape Design (6)

Prereq.: LA 4002, LA 4201, LA 4301. Required field trip. Students are responsible for paying travel expenses associated with the course. 12 hrs. studio. Investigation of urban structures and systems and design of urban landscapes and elements.

# LA 5002 Landscape Design VIII: Capstone Project (6)

*Prereq.: LA 4008 or LA 5001, LA 5201. 12 hrs. studio.* Intensive development of a comprehensive landscape design and/or independent design project.

### LA 5201 Research Seminar (3)

*Prereq.: LA 3201, LA 4201.* Intensive and critical review of major landscape theories and issues; identification and preparation for a comprehensive final project.

# LA 5301 The Practice of Landscape Architecture (3)

*Prereq.: LA 3302 or consent of instructor.* Professional practice for landscape architects including issues associated with licensure, practice types, professional services, business developments, contracts and project management.

### LA 7011 Site Systems I (6)

Prereq.: consent of the school. 12 hrs. studio. Recordings, analysis, topography/strata, processes of landscape design.

### LA 7013 History and Theory I (3)

*Prereq.: consent of School.* Overview of landscape movements throughout history.

### LA 7014 Ecology and Technology I (3)

*Prereq.: consent of School.* Field course on basic concepts of ecological systems including principles in plant communities, soils, landforms, and basic hydrology through on-site reading and documentation; introduces soils as an ecological building block capable of organizing plant communities, topography, and hydrology; explores basic soil types and their associated site design issues.

### LA 7021 Site Systems II (6)

*Prereq.: LA 7011 or consent of the school. 12 hrs. studio.* Human systems, site scale resolution, advanced topography/strata, vegetation processes of landscape design.

### LA 7023 History and Theory II (3)

*Prereq.: LA 7013 or consent of School.* Major historical influences from China, Japan, Mughals, Moors, Italy, France, England, and others up to contemporary practice.

### LA 7024 Ecology and Technology II (3)

*Prereq.: LA 7014 or consent of School.* Field course introduces plants as a central component of organizing ecological communities, in relationship to topography and hydrology. Basic principles in plant communities, soils, landforms, and basic hydrology through on-site reading and documentation; introduces landscape architecture as a practice, focusing on site systems and the representation of plant materials and ecosystems and green infrastructures.

### LA 7031 Water Systems (6)

*Prereq.: LA 7021 or consent of the school. 12 hrs. studio.* Landscape and water management regional strategies, theory, global issues, and site scale hydrology.

# LA 7032 Special Topics in Landscape Architecture Media (3)

*Prereq.: consent of instructor. Course may be taken for 6 hours of credit when topics vary. 6 hrs. studio.* Mapping water and natural resources in conjunction with studio work; exploring design alternatives using related software.

### LA 7033 History and Theory III (3)

*Prereq.: LA 7023 or consent of School.* History of open space in the urban environment and related planning issues. The role of urban parks in the planning and design of cities.

### LA 7034 Ecology and Technology III (3)

*Prereq.: LA 7024 or consent of School.* Introduces stormwater management techniques and the calculations required to determine stormwater runoff and the reduction of stormwater pollution; using hydrological software to do parametric modeling of a stormwater design.

### LA 7041 Urban Systems (6)

*Prereq.: LA 7031 or consent of the school. 12 hrs. studio.* City landscapes, infrastructure, public, social, and cultural space within a temporal context.

### LA 7042 History and Theory IV (3)

Prereq.: LA 7033 or consent of School. Course includes travel and field research. Students are responsible for paying travel expenses associated with the course. Contemporary landscape architecture practice from the 1960's to the present, focusing on a series of detailed case studies showing the evolution of contemporary projects and their relationship to contemporary theory.

#### LA 7043 Professional Practice (3)

*Prereq.: consent of School.* Professional landscape architecture practice in a design office. Contracts, management, professional ethics and the business issues facing planning and design professionals including explorations of non-traditional careers for landscape architects.

#### LA 7044 Ecology and Technology IV (3)

*Prereq.: LA 7034 or consent of School.* Construction practices in landscape architecture, focusing on the primary components of built environments: materials, assemblies, and technique; the principles of sustainability as it relates to construction and materials; advanced materials and emerging technologies.

### LA 7051 Advanced Topics I (6)

*Prereq.: LA 7041 or consent of the school. 12 hrs. studio.* Advanced research studio focusing on specific landscape problems, sites, or topics.

### LA 7052 Thesis Preparation (3)

*Prereq.: consent of School.* Preparation for landscape architecture thesis on design, technology, history, or professional principles working closely with the instructor on research methods and developing an individual thesis proposal for a written or design thesis.

### LA 7061 Advanced Topics II (6)

*Prereq.: LA 7051 or consent of the school. 12 hrs. studio.* Final advanced research studio focusing on specific landscape problems, sites, or topics or an independent design project.

#### LA 7101 Graduate Landscape Representation I (3)

*6 hrs. studio.* Freehand and mechanical representation techniques, tools and media used in designing and illustrating landscape architectural projects; emphasis on the development of a vocabulary, basic skills and theory of landscape architectural representation.

# LA 7102 Graduate Landscape Representation II (3)

*Prereq.: LA 1102 and LA 7101. 6 hrs. studio.* Advanced representation techniques developing skills of visualization and representation using freehand, mechanical and digital imaging design projects.

### LA 7201 Research Methods (3)

Concepts of qualitative research; skills in finding and using research material; landscape architectural research trends; evaluation of research; application of research to landscape design.

### LA 7401 Graduate Landscape Ecology (3)

Required field trips for which a deposit is required at registration. Basic principles of ecology and environmental systems; application of ecological principles and relationships to resource, recreation and landscape planning, with attention to conservation ethics and legal regulations leading to sustainability of the landscape.

# LA 7501 Graduate Field Studies in Landscape Architecture (3)

May be repeated for a maximum of 9 hrs. credit with the permission of the Department. Students are responsible for praying travel expenses associated with this course. This course is a field trip to landscape architectural offices, projects, historic sites, and schools throughout the US and abroad.

# LA 7502 Graduate Independent Study in Landscape Architecture (3)

Prereq.: Consent of department. Independent study proposals must be pre-approved by the supervising faculty member. May be repeated for maximum of 6 credit hours. A program of individual study under faculty guidance, including auditing of lectures, reading, and exercises as needed to develop skills or knowledge related to the area of specialty.

#### LA 8000 Thesis Research (1-12 per sem.)

"S"/"U" grading.

### Latin

#### LATN 1001 Elementary Latin (4)

[LCCN: CLTN 1014, 1026, Elementary Latin I] This is a General Education course. Nonlaboratory reading course in classical Latin; emphasis on comprehension rather than grammar; repetition of controlled vocabulary and contextual clues used to read extensive passages of simple Latin.

#### LATN 2051 Intermediate Latin (4)

[LCCN: CLTN 1023, 1026, Elementary Latin II] This is a General Education course. *Prereq.: LATN 1001 or equivalent*. Reading comprehension approach to language continued in extensive passages of moderate difficulty; vocabulary building and basic Latin grammatical constructions.

#### LATN 2053 Intermediate Latin (3)

[LCCN: CLTN 2013, Intermediate Latin I] This is a General Education course. *Prereq.: LATN 2051 or equivalent.* Nonlaboratory comprehension approach includes material of the difficulty of 1st century Latin poetry and prose.

#### LATN 2065 Golden Age Narrative Poetry (3)

[LCCN: CLTN 2023, Intermediate Latin II] This is a General Education course. *Prereq.: LATN 2053 or equivalent.* Readings from the narrative poets, including selections from Vergil's Aeneid and/or from Ovid's Metamorphoses.

#### LATN 2066 Golden Age Prose (3)

[LCCN: CLTN 2023, Intermediate Latin II] This is a General Education course. *Prereq.: LATN 2053 or equivalent.* Readings from Roman prose writers (excluding the historians); the major speeches, letters, and/or philosophical works of Cicero.

#### LATN 2073 Roman Historians (3)

[LCCN: CLTN 2023, Intermediate Latin II] This is a General Education course. *Prereq.: LATN 2053 or equivalent*. Readings from Roman historians; selections from Livy and/or Tacitus; prose style and philosophy of history of the author(s).

#### LATN 2074 Golden Age Lyric Poetry (3)

[LCCN: CLTN 2023, Intermediate Latin II] This is a General Education course. *Prereq.: LATN 2053 or equivalent*. Readings from the lyric poets; selections from the Carmina of Catullus and/or the Odes of Horace, with attention to emotional content.

#### LATN 4001 Intensive Latin Language (3)

A specialized course intended to provide a reading knowledge of Latin. For graduate students and advanced undergraduates for whom a familiarity with another foreign language is strongly recommended. Successful completion of this course will be regarded as sufficient preparation for LATN 4006. Does not count toward satisfying foreign language requirement for undergraduates, although hours may count toward baccalaureate. Credit will not be given for both this course and introductory Latin courses. Syntax, grammar and lexicology of Latin; graduated

readings from representative authors.

#### LATN 4002 Roman Satire (3)

Readings from Petronius' Satyricon, Martial and Juvenal for their humor, with attention to evidence of the lives and language of ordinary Roman people.

#### LATN 4003 Readings in the History of Livy (3)

Selections from the History of Livy; literary and historical significance.

### LATN 4004 Roman Comedy (3)

Reading of representative plays of Plautus and Terence, with attention to dramatic techniques and comic situations.

#### LATN 4006 Medieval and Renaissance Latin (3)

Readings from the time of the medieval Latin writers to Milton.

#### LATN 4023 Special Topics in Latin Poetry (3)

*May be taken for a max. of 6 sem. hrs. of credit.* Readings and studies in the works of one or more major poets of the Roman Republic or Roman Empire.

#### LATN 4024 Special Topics in Latin Prose (3)

May be taken for a max. of 6 sem. hrs. of credit. Readings and studies in the works of one or more of the major prose writers of the Roman Republic or Roman Empire.

#### LATN 4120 Roman Elegy (3)

Readings in the major Latin elegiac poets such as Ovid, Propertius and Tibullus; attention to poetic technique and to Roman attitudes toward love and women.

#### LATN 4915 Independent Work (1-3)

May be taken for a max. of 6 sem. hrs. of credit. Permission of department required. Readings in Latin literature directed by a senior faculty member.

### Leadership and Human Resources Development

#### LHRD 2723 Introduction to Leadership Development (3)

An honors course, LHRD 2724, is also available. Credit will not be given for this course and LHRD 2724. Introduction to leadership and leadership development; emphasis on students understanding their personal traits, values, characteristics and development tasks as a foundation for leadership development.

#### LHRD 2724 HONORS: Introduction to Leadership Development (3)

Same as LHRD 2723 with special honors emphasis. Prereq.: Honors College students only. Credit will not be given for this course and LHRD 2723.

# LHRD 3071 Principles of Human Resource Development (3)

A comprehensive introduction to the field, principles, profession and practice of Human Resource Development (HRD) Training and Development.

#### LHRD 3171 Instructional Design for Training (3)

*Prereq.: LHRD 3071.* Principles and practices of instructional design for developing effective training; course, unit and lesson development.

# LHRD 3271 Leading Learning in Human Resource Development (3)

*Prereq.: LHRD 3071.* Introduction to the principles and practices of instructional delivery strategies to facilitate learning in training and development; methods for leading learning in traditional classroom training; on-the-job training; small group learning; and individual learning.

#### LHRD 3331 Strategic Career Development/Planning (3)

*Prereq.: Sophomore standing or higher or consent of instructor.* Career development and planning through career decision-making, networking and linking personal competencies to organizations. Applying skills required for a successful job search and making the transition from college to work.

# LHRD 3571 Needs Analysis in Human Resource Development (3)

Comprehensive introduction to the principles and practice of needs assessment and performance analysis for Human Resource Development (HRD) Training and Development and Adult Education.

# LHRD 3723 Leadership Concepts and Principles (3)

An honors course, LHRD 3724, is also available. Credit will not be given for this course and LHRD 3724. Survey of leadership theory, concepts and research; emphasis on understanding the foundational concepts of modern leadership.

# LHRD 3724 HONORS: Leadership Concepts and Principles (3)

Same as LHRD 3723 with special honors emphasis. Prereq.: Honors College students only. Credit will not be given for this course and LHRD 3723.

### LHRD 4025 Principles of Adult Education (3)

Nature and importance of adult education; social and psychological factors affecting adult motivation and learning; techniques for providing adult learning experiences.

# LHRD 4068 Project Management and Team Leadership in LHRD (3)

Introduction to the conceptualization and development of project plans, project management strategies and the leadership and development of project teams in human resource and leadership development.

# LHRD 4079 Foundations of Human Resource Development (3)

Comprehensive introduction and overview to the field, profession, theoretical foundations and practice of Human Resource Development (HRD).

# LHRD 4252 Instruction and Information Technology (3)

2 hrs. lecture; 2 hrs. lab. Broad introduction to the vast array of information technologies as well as a survey of the global, ethical, political, cultural, social and environmental issues raised by information technology; building skills in integrating information technologies into a workforce curriculum.

### LHRD 4281 Foundations of Distance Learning (3)

*Prereq.: AEEE 4101 or LHRD 3171.* Overview of the theories, models and systems of distance learning; focus on understanding the foundations of distance learning, the design and delivery methodologies, and the role of the instructor and learner.

# LHRD 4301 Assessment, Career Development and Productivity (3)

Assessing present and future needs of the human resource education student; procedures used to evaluate student preferences, career potential and occupational placement.

## LHRD 4573 Managing the Human Resource Development Function (3)

Offered in Su Study of human resource development (HRD) in organizations with employees on practical application of principles for effective leadership, management and administration of the HRD function.

### LHRD 4579 Training in Global Organizations (3)

Introduction to the problems, practices and models of cross-cultural competence and cross-cultural training; focus on the nature, content and function of cross-cultural training in organizations.

## LHRD 4581 Advanced Organizational Psychology & Work Behavior (3)

Topics in organizational science derived from research in organizational psychology, management, human resources, organizational communication, and sociology; basic understanding of the conceptual and empirical knowledge that describes and defines human behavior within organizational systems, with a particular focus on workplace organizations.

### LHRD 4585 Consulting in Organizations (3)

Practical look at the skills to be an effective internal or external consultant in organizations; emphasis on consulting process rather than any specific area of consulting expertise.

# LHRD 4603 Evaluation in Human Resource Development (3)

*Prereq.: LHRD 3071.* Comprehensive introduction to the principles and practice of training program evaluation.

# LHRD 4705 Education, Business and Entrepreneurship (3)

Principles and strategies involved in establishing and operating small businesses; emphasis on resources available to aid the educator in bridging the gap between business and entrepreneurship.

# LHRD 4723 Advanced Leadership Development (3)

An honors course, LHRD 4724, is also available. Prereq.: LHRD 2723 and LHRD 3723 or graduate status. Credit will not be given for this course and LHRD 4724. Focus on developing the leadership skills students need to effectively lead organizations and communities to achieve their vision and goals.

# LHRD 4724 HONORS: Advanced Leadership Development (3)

Same as LHRD 4723 with special honors emphasis. Prereq.: LHRD 2723 or LHRD 2724 and LHRD 3723 or LHRD 3724; Honors College students only. Credit will not be given for this course and LHRD 4723.

# LHRD 4804 Professional Development Internship (3-12)

Prereq.: LHRD 3071, LHRD 3171, LHRD 3271, and LHRD 3571. May be taken for a max. of 12 sem. hrs. of credit. Not for graduate credit. For Human Resource Education majors only. Students gain increased practical experience in the selected field of study, enhancing student exposure to career opportunities, and expanding the depth and breadth of information available to students making career decisions.

# LHRD 4805 Making the Transition from College to Work (1)

*Course is taken in conjunction with an internship, practicum or other work experience.* Introduction to the skills needed to successfully make the transition from college to career life; emphasis on the skills needed to quickly learn how to be a top performing new employee and avoid typical mistakes college graduates make as new employees.

# LHRD 4808 Leadership Development Internship (3)

Prereq.: LHRD 2723, LHRD 3723, and credit or registration in LHRD 4723 or LHRD 4724. Not for graduate credit. Capstone for the Leadership Development Minor. Applying knowledge, skills, and abilities gained through prior coursework to lead a team of people in an applied setting.

# LHRD 4809 Advanced Problems in Leadership & Human Resource Development (1-3)

May be taken for a max. of 6 sem. hrs. credit. Permission of instructor. Individual and group problems.

#### LHRD 4901 Global Leadership (3)

An examination of contemporary research, practice, and development issues related to leadership in international organizations.

# LHRD 7001 Principles of Workforce Development (3)

Principles of workforce education and development programs conducted by business, industry, government and educational institutions at all levels; relationships to adult education, career/technical education, human resource development, career development, general education and society.

# LHRD 7002 Perspectives on Leadership and Human Resource Development (3)

Survey of the evolving perspectives and critical pillars that illuminate and link the fields of leadership and human resource development.

### LHRD 7005 Workforce Planning and Analysis (3)

Examines the process of workforce planning on a macrolevel to develop students' understanding of workforce planning models, the planning process, and the capability to carry out workforce planning and analysis to meet clients' needs.

# LHRD 7025 Advanced Adult Learning Theory and Practice (3)

Advanced study of adult learning theory and research; emphasis on learning theory and research in adult learning with implications for adult learning practice.

### LHRD 7110 Team & Group Dynamics (3)

Survey of team and work group dynamics.

## LHRD 7171 Instructional Design for Human Resource Development (3)

Comprehensive introduction to the theory, principles, research and practices of instructional systems design (ISD) in human resource education (HRD) and training.

# LHRD 7200 Philosophy of Science in Leadership and Human Resource Development (3)

Survey of the philosophy of science underlying the scientific method in the study of leadership and human resource development.

# LHRD 7202 Systems of Teaching and Learning Styles (3)

Analyzing how individuals perceive and process information; interrelationships with personality, leadership, management, supervision, administration; applications in education, business, industry, formal and nonformal settings.

# LHRD 7271 Leading Learning in Human Resource Development (3)

Principles, research, and practices of facilitating learning in human resource development (HRD) including facilitation skills for traditional classroom training, as well as informal work-based learning strategies.

# LHRD 7304 Human Resource Education for Special-Needs Students (3)

Offered in Su Regulations, issues, assessment, instruction and special problems in human resource education for learners with special needs.

# LHRD 7571 Performance and Needs Analysis in Human Resources Development (3)

Theory and principles used in the analysis of performance problems in organizations; emphasis on the application of performance theory and use of tools and techniques for analyzing organizational, process and individual level performance problems.

# LHRD 7575 Managing Change in Organizational Systems (3)

Introduction to the theory, methods and practice of organization change and development; emphasis on the role of the HRD practitioner as change agent and the interventions used to lead and manage organization change.

# LHRD 7577 Training and Development in Organizations (3)

Survey of the training and development function in modern organizations. Particular focus is given to learning theory and strategies, program design, and evaluation in applied (field) settings. A multidisciplinary perspective is encouraged.

### LHRD 7602 Program Evaluation Design I (3)

Systematic application of social research procedures for evaluating the conceptualization, design, implementation and utility of human resource and organization development programs.

#### LHRD 7723 Leadership and Organization (3)

Application of relevant principles from leadership theory, group dynamics, social organization and organizational administration to problems of organizing extension education programs.

# LHRD 7724 Determinant Leadership & Individual Development (3)

*Prereq.: LHRD 7723 or permission of instructor.* Identification and development of an individual's leadership strengths, traits, and skills through researchbased assessments.

# LHRD 7725 Leadership Development Strategies in Organizations (3)

Introduction to the major strategies used for developing leaders in organizations; emphasis on learning theories for leadership development, formal training strategies, development through job experience, feedback intensive programs and skill-building programs.

# LHRD 7727 Advanced Leadership Theory and Practice (3)

A study of theory, research, and managerial applications of leadership; in-depth examination of leadership styles and approaches, including taxonomies, personal attributes of leadership, diversity, and cultural dimensions.

#### LHRD 7731 Current Topics in Leadership Development (3)

*Prereq.: nine hours from LHRD 7723, LHRD 7724, LHRD 7725, LHRD 7575, or LHRD 7727.* Analysis and evaluation of contemporary examples of leadership in human resource education, including current trends and models.

# LHRD 7733 Practicum in Leadership Development (1-6)

*Prereq.: twelve hours from LHRD 7723, LHRD 7724, LHRD 7725, LHRD 7575, LHRD 7727, or LHRD 7731.* Practical experience in leadership development under the guidance of in-service practitioners.

### LHRD 7801 Current Problems and Issues in Leadership & Human Resource Development (1-3)

*Prereq.: permission of instructor.* Legislative, societal and educational concerns affecting workforce education.

# LHRD 7803 Independent Study in Leadership & Human Resource Development (1-3)

May be taken for a max. of 3 sem. hrs. credit when topics vary. Permission of instructor. Faculty directed study of relevant topics in workforce education.

# LHRD 7805 Seminar in Leadership & Human Resource Development (1-6)

May be taken for a max. of 6 sem. hrs. credit when topics vary. Selected topics of interest to leadership & human resource development.

## LHRD 7871 Research and Theory in Human Resource Development (3)

*Doctoral seminar.* The role of theory in human resource development practice and research, theory-building methodologies and key foundational theory and research in human resource development.

# LHRD 7901 Scientific Methods in Leadership & Human Resource Development (3)

Principles involved in formulating educational problems, hypotheses, research strategies; historical, descriptive, experimental and research methodologies.

# LHRD 7903 Survey Research Design and Implementation (3)

Offered in Su *Prereq.: LHRD 7901 or equivalent.* Survey and correlational research in vocational education; emphasis on selection and/or development of appropriate measuring devices.

### LHRD 7910 Human Resource Analytics (3)

Human resource and organizational behavior issues will be examined through the lens of measurement, analysis, and financial impact for the organization.

# LHRD 7911 Measures and Models of Human Resource Education (3)

*Prereq.: ELRC 7006 and ELRC 7016 or equivalent.* Fieldbased psychological measurement and multivariate analysis techniques; exploring several measurement and multivariate statistical techniques used widely in the behavioral sciences; emphasizes understanding the measures and models from a practical perspective.

# LHRD 7921 Applied Qualitative Research Methods (3)

Expanding graduate students' research skills to include knowledge of theories and methods associated with qualitative research designs.

# LHRD 7923 Advanced Mixed Methods Research (3)

*Prereq.: ELRC 7006, LHRD 7901, AEEE 7905, and LHRD 7921, or equivalent coursework.* Systematic application of social research procedures for evaluating the conceptualization, design, implementation, and utility of human resource education and workforce development programs.

# LHRD 7973 Data Collection and Analysis in Organizations (3)

Introduction to the principles and fundamental methods of collecting, analyzing, and interpreting data in organizations for the purpose of informing actions and decisions related to human resource development.

### LHRD 8000 Thesis Research (1-12 per sem.)

"S"/"U" grading. Permission of instructor.

#### LHRD 8900 Research Problems (1-6)

Prereq.: AEEE 7622 and a basic graduate-level statistics course. May be taken for a max. of 6 sem. hrs. of credit. Permission of instructor. Research problems in programming, teaching, leadership, organization or evaluation of extension programs.

LHRD 9000 Dissertation Research (1-12 per sem.)

"S"/"U" grading. Permission of instructor.

### Life Course and Aging

#### LCA 2000 Interdisciplinary Seminar in Aging (1)

Contemporary issues in aging; preparation for the study of aging in contemporary society.

### **Liberal Arts**

### LIBA 7000 Liberal Arts: Methods of Inquiry (3)

*Liberal Arts 7000 is required.* Interdisciplinary study in the liberal arts; modes of inquiry in different disciplines, common themes in the humanities and means of integrating these into the whole.

#### LIBA 7900 Liberal Arts: Themes and Commonalities (3)

*Liberal Arts 7900 is required.* Major ideas in the liberal arts as reflected in exemplary published studies and student research; the cultural function of the humanities.

### LIBA 7950 Special Topics in the Liberal Arts (3)

Prereq.: credit in LIBA 7000 or consent of instructor. May be taken for a max. of 9 hrs. of credit when topics vary. Interdisciplinary studies in the liberal arts, with attention to major periods, movements, themes or problems in Western culture.

### LIBA 7990 Independent Study (1-3)

Prereq.: consent of department; credit or concurrent enrollment in LIBA 7000. May be taken for a max. of 6 sem. hrs. of credit. Directed individual readings by the graduate faculty.

LIBA 8000 Thesis Research (1-12 per sem.)

Prereq.: consent of department. "S"/"U" grading

### Linguistics

LING 2010 Symbolic Logic (3) See PHIL 2010.

**LING 2050 Introduction to Language (3)** *See COMD 2050.* 

LING 2710 Descriptive Grammar of English (3) *See ENGL 2710.* 

## LING 2716 Language Diversity, Society, & Power (3)

This is a General Education course. See ENGL 2716.

# LING 3060 Introduction to Anthropological Linguistics (3) *See ANTH 3060.*

LING 3080 French Culture and Civilization (3) *See FREN 3080.* 

LING 3260 Structure of Louisiana French (3) *See FREN 3260.* 

LING 3280 Cajun French Culture (3) *See FREN 3280.* 

LING 3310 Historical Perspectives on Language Issues (3) See ENGL 3310.

LING 3341 African American English (3) *See AAAS 3341.* 

LING 3716 Dialects of English (3) *See ENGL 3716.* 

LING 3720 Methods for Teaching English as a Second Language (3) See ENGL 3720.

LING 4001 History of the French Language (3) *See FREN 4001.* 

LING 4004 The North American Indians (3) *See ANTH 4004.* 

**LING 4005** Structure of the Spanish Language (3) *See SPAN 4005.* 

LING 4010 Symbolic Logic II (3) *See PHIL 4010.* 

LING 4011 Topics in Advanced Logic (3) Prereq.: PHIL 4010/LING 4010. See PHIL 4011.

LING 4014 Introduction to French Linguistics (3) *See FREN 4014.* 

LING 4015 Advanced French Phonetics (3) *See FREN 4015.* 

LING 4060 Language and Culture (3) See ANTH 4060.

LING 4150 Phonetics (3) See COMD 4150.

LING 4153 Acoustics of Speech and Hearing (4) See COMD 4153.

LING 4310 Studies in Language (3) See ENGL 4310.

LING 4380 Speech and Language Development (3) See COMD 4380.

LING 4602 Spanish Phonetics (3) *See SPAN 4602.* 

LING 4603 Applied Spanish Linguistics (3) *See SPAN 4603.* 

**LING 4710 Introduction to Linguistics (3)** See ENGL 4710.

**LING 4711 History of the English Language (3)** See ENGL 4711.

LING 4712 Roots of English (3) See ENGL 4712.

LING 4713 Syntax (3) See ENGL 4713.

LING 4714 Phonology (3) See ENGL 4714. **LING 4715 Semantics (3)** See ENGL 4715.

LING 4720 Second Language Acquisition (3) *Same as ENGL 4720.* 

LING 4750 Independent Research in Speech Science or Linguistics (1-3) See COMD 4750.

**LING 4914 Philosophy of Language (3)** See PHIL 4914.

LING 7060 Conversation and Discourse (3) See ANTH 7060.

**LING 7712 Topics in Historical Linguistics (3)** See ENGL 7712.

**LING 7713 Topics in Syntax and Semantics (3)** See ENGL 7713.

LING 7714 Topics in Sociolinguistics (3) *See ENGL 7714.* 

LING 7750 Special Topics in Linguistics (3) See COMD 7750.

LING 7756 Independent Research: Phonetics and Linguistics (1-3) See COMD 7756.

LING 7909 Selected Topics in Anthropology (3) See ANTH 7909.

**LING 7910 Seminar (3)** See PHIL 7910.

**LING 7962 Field Methods in Linguistics (3)** See ANTH 7962.

LING 7999 Research in Anthropology (1-6) See ANTH 7999.

LING 8000 Thesis Research (1-12 per sem.) "S"/"U" grading.

LING 9000 Dissertation Research (1-12 per sem.) "S"/"U" grading.

### Library & Information Science

# LIS 1000 Information Literacy and Critical Analysis (3)

Introduction to information creation and organization; critical analysis and evaluation of information for research and everyday life.

# LIS 1001 Library Research Methods and Materials (1)

Fundamentals of college-level research; location, evaluation and use of information for research needs; introduction to the library and to the organization, access and retrieval of information; hands-on experience in a variety of printed and electronic resources.

### LIS 2000 Introduction to Information & Society (3)

This is a General Education course. Introduction to information as a concept and its changing roles, uses and meanings in contemporary global society.

# LIS 2001 Introduction to Information Technologies (3)

*Credit will not be given for this course and CSC 1100, EXST 2000 and ISDS 1100.* Introduction to hardware, software, networking and telecommunications issues; use of application software, electronic databases and search engines.

### LIS 3000 Libraries in the Information Age (3)

An overview of the historical and contemporary role of libraries and information centers in society and of career opportunities in today's information age.

# LIS 3002 Introduction to Library Public Services (3)

An introduction to the principles, practice, and procedures of library services to the public, including effective public service, reference, circulation, and programming.

#### LIS 3004 Introduction to Technical Services (3)

Introduction to the principles and practices of technical services, including cataloging, acquisitions, bindery, and serials control in libraries and information centers.

## LIS 3006 Introduction to Collection Development (3)

Overview of collection development principles and practices.

## LIS 4001 Advanced Library Research Methods and Materials (3)

Advanced information literacy for college-level research; location, evaluation and use of information for research needs; the organization, access and retrieval of information; practical experience with resources in multiple formats.

### LIS 4101 Collection Development for Children (3)

Developing library collections for children ages birth to twelve and the uses of such literature in public and school libraries.

### LIS 4102 Collection Development for Teens (3)

Developing library collections for teens ages twelve to eighteen and the uses of such literature in public and school libraries.

# LIS 4900 Special Topics in Library & Information Science (3)

May be taken for a max. of 6 sem. hrs. of credit when topics vary with department approval.

### LIS 7000 Information and Society (3)

Information as a concept, and its uses and meanings in contemporary global society.

### LIS 7002 Information Resources (3)

Preparation for reference services; including the reference interview; selection and use of general, scholarly and specialized reference resources in various subject fields.

# LIS 7004 Management of Information Organizations (3)

Basic functions of management and their application to the operation of information organizations.

# LIS 7008 Information Technologies and Systems (3)

Introduction to hardware, software, telecommunications and networks, and system issues relating to information technologies.

### LIS 7009 Understanding Research (3)

Research methodologies applicable to library and information phenomena; definition of research problems, selection of inquiry tools and data collection; emphasis on evaluation of research.

### LIS 7010 Organization of Information (3)

Concepts and principles of information organization; methods and tools used for organizing information, including bibliographic control and metadata creation.

# LIS 7011 Information Needs and Information Seeking (3)

User-centered approaches to meeting information needs of individuals and communities; community analysis, user studies and user-centered design of services and resources.

### LIS 7013 Evaluation of Information Systems (3)

*Prereq.: major or permission of department.* Evaluation of information system performance; systems analysis techniques; development and use of performance measures; strategies for improving system performance.

### LIS 7100 Youth Services Librarianship (3)

Administration and management of developmentallyappropriate public library services for children and teens, birth to 18 years.

### LIS 7101 Literature and Services for Children (3)

Developmentally appropriate library and information services for children, ages birth to eleven; emphasis on literature and uses of literature in schools and libraries.

### LIS 7102 Literature and Services for Teens (3)

Developmentally appropriate library services and programming for teens, ages 12 to 18; emphasis on literature and uses of literature in schools and libraries.

### LIS 7104 Non-Fiction for Children and Teens (3)

*Prereq.: LIS 7101, LIS 7102, or permission of instructor.* Designing, planning, and providing developmentally appropriate library and information services for children and adolescents, aged birth to eighteen, with an emphasis on informational literature and the uses of such literature in public and school libraries.

#### LIS 7105 Graphic Novels in Libraries (3)

*Prereq.: LIS 7101, LIS 7102, or permission of instructor.* Explores the history of the graphic novel; collection, acquisition and management issues related to literature; and it uses in public and school libraries, with an emphasis on working with children and young adults.

# LIS 7202 Resources for Science and Technology (3)

Information resources in major areas of pure and applied sciences.

#### LIS 7203 Sources of Government Information (3)

Government publications as products of government activity and as sources of information.

#### LIS 7205 Business Information Resources (3)

Information resources in major areas of business and economics.

#### LIS 7400 School Library Management (3)

Management of libraries and information services in k-12 schools; emphasis on the roles and responsibilities of the school librarian.

### LIS 7401 Academic Libraries (3)

Study of libraries in higher education; their development, organization, financing and administration; human resources; collections; services; and futures.

# LIS 7403 Special Libraries and Information Centers (3)

Major types of special libraries; their purpose and function in business, government and other organizations; principles of administration; technical processing; reference services; special methods, routines and records.

#### LIS 7404 Health Sciences Information Centers (3)

Administration, organization, function and services of health sciences libraries; collection development and reference emphasis on major print and electronic information resources.

#### LIS 7405 Public Libraries (3)

Role of the public library in past and present American society; its relationship to the social and political communities.

#### LIS 7408 Introduction to Archival Theory, Principles & Practice (3)

Introduction to the theory, principles and practices of the archival endeavor; particular focus on introducing the key archival functions of appraisal, accessioning, arrangement and description, preservation, reference and outreach.

#### LIS 7409 Human Computer Interaction (3)

Study of interactions between humans and information systems, leading to more effective system design and evaluation; human cognition, user modeling, system design approaches, evaluation methods.

#### LIS 7410 Digital Libraries (3)

*Prereq.: LIS 7008 or consent of instructor.* Current activities, models, methods and tools for digital library creation and support; theoretical and practical aspects of digital library creation, using a variety of formats and approaches.

# LIS 7503 Information Technology and Public Policy (3)

Examines the impact of information technology and public policies on economic, social and political systems; focuses on major public policies related to information technologies within the United States and selected countries.

# LIS 7504 Preservation Management of Physical Records (3)

Study of preservation as a management function, highlighting causes of deterioration of print and non-print collections, as well as policies and practices that ensure their maximum usable life, and disaster planning.

### LIS 7505 Introduction to Digital Curation (3)

Introduction to archiving digital materials and the technological, ethical, and legal issues they routinely present to the archivist; includes characteristics of "good" digital materials and the role of metadata in creating and maintaining them, as well as the configuration of a trustworthy digital archival repository, and the tools and policies needed to create and maintain one.

#### LIS 7506 Preservation and Digitization of Audiovisual Materials (3)

Introduction to the concepts and basic techniques for preservation and digitization of moving image and recorded audio materials.

# LIS 7508 Management of Knowledge-Based Assets in Organizations (3)

Analysis of the nature and uses of knowledge-based assets in organizations; systems for managing knowledge-based assets will be considered in the context of institutions' overall information ecology; examination of the role of librarians and information professionals in organizing and providing knowledge-based assets.

### LIS 7510 Website Design and Management (3)

*Prereq.: LIS 7008 or permission of instructor.* Design, produce, and manage effective websites; understanding of the World Wide Web environment and related technologies.

#### LIS 7511 Competitive Intelligence (3)

Introduction to basic concepts and methods of competitive intelligence; fundamental skills and techniques to collect, analyze and distribute information about competitors and competitive environment.

#### LIS 7604 Principles of Records Management (3)

Application of systematic and scientific controls to recorded information; life-cycle concept, legal requirements and implications of technology, as well as records inventory, appraisal, classification, retention and protection.

#### LIS 7606 Abstracting and Indexing (3)

Principles of abstracting and indexing for print and electronic environments; controlled vocabulary and thesaurus development; manual and computerized abstracting and indexing techniques; effectiveness of abstracting and indexing methods.

### LIS 7608 Introduction to Cataloging and Classification (3)

*Prereq.: or coreq: LIS 7010 or permission of instructor.* Principles underlying description, subject analysis, classification of library resources and authority control; current national standard cataloging rules, Library of Congress Subject Headings, Dewey Decimal Classification, Library of Congress Classification, and MARC (machine readable cataloging) formats are emphasized.

# LIS 7609 Advanced Cataloging and Classification (3)

*Prereq.: LIS 7608 or consent of instructor.* Detailed analysis of cataloging and classification of special resources, including serials, electronic and cartographic resources, kits, music, manuscripts, realia, including formatting of bibliographic representations; intensive survey of conceptual foundations of descriptive and subject metadata.

# LIS 7610 Information Retrieval Systems (3) See CSC 7481.

### LIS 7700 History & Theory of Cultural Heritage Institutions (3)

Socio-cultural history and theory of libraries, archives, museums and other cultural heritage institutions.

# LIS 7702 Seminar in Advanced Archival Appraisal (3)

*Prereq.: LIS 7408 or permission of instructor.* Appraisal and selection of archival materials from both a theoretical and a practical perspective. Extensive reading in the archival literature to form familiarity with the evolution of appraisal theory and current practices in the field.

### LIS 7704 Archival Arrangement & Description (3)

Development of the intellectual framework and critical evaluation skills necessary for the arrangement and description of archival collections.

#### LIS 7705 Introduction to Museum Management (3)

Introduction to the purpose, functions, organization and management of museums.

# LIS 7800 The Art and Practice of Library Storytelling (3)

Role of storytelling as a form of communication; preparation and presentation of stories for all age groups; planning story programs.

#### LIS 7807 Information Literacy Instruction (3)

Theories, techniques, strategies and current practice for teaching the effective and efficient use of academic, school, public and special library resources.

### LIS 7808 Special Topics in Library & Information Science (1-3)

Prereq.: Permission of department. May be taken for a max. of 15 sem. hrs. of credit when topics vary.

# LIS 7810 Sources of Music Study & Research (3) See MUS 7600.

### LIS 7900 Internship in Library & Information Science (3)

Prereq.: completion of 18 hrs. of LIS courses and permission of instructor. Preparation for course begins semester prior to registration. 120 hrs. per semester at field site. Experience in management, provision of services, and/or systems development.

#### LIS 7909 Directed Independent Study (1-3)

Prereq.: completion of 9 hours of LIS courses. May be taken for a max. of 6 sem. hrs. credit.

### Louisiana State University

### LSU 1001 Freshman Seminar (1)

*Open to freshmen only.* Integration into the academic life of the campus, including orientation to the University's policies and resources, its history and traditions; development of essential academic skills, personal growth/self-awareness, and career exploration; instill a sense of community on campus and beyond.

### **Mathematics**

No student may receive more than nine semester hours of credit in mathematics courses numbered below 1550, with the exception of students who are pursuing the elementary education degree and following the 12 hour sequence specified in that curriculum. No student who has already received credit for a mathematics course numbered 1550 or above may be registered in a mathematics course numbered below 1550, unless given special permission by the Department of Mathematics.

#### MATH 1009 Mathematics for Prospective Elementary School Teachers I (3)

*Offered by Independent and Distance Learning only.* Logic; counting numbers, integers, rational numbers, real numbers; emphasis on field properties; set nomenclature and some number theory; units of measurement.

#### MATH 1010 Mathematics for Prospective Elementary School Teachers II (3)

Prereq.: MATH 1009. Offered by Independent and Distance Learning only. Continuation of MATH 1009. Measurement, informal geometry, systems of equations, introduction to probability and statistics.

# MATH 1015 Basic Mathematics and Applications (3)

This course does not serve as a prerequisite for calculus. Credit will not be given for both this course and MATH 1021, MATH 1022, or MATH 1023. Offered by Independent and Distance Learning only. Basic mathematical skills of graphing, formulas for geometric measurement, systems of linear equations and inequalities, review of quadratic equations, logarithms and application to exponential growth and decay, triangle trigonometry and its application to geometry and measurements.

#### MATH 1021 College Algebra (3)

[LCCN: CMAT 1213, College Algebra] This is a General Education course. *Prereq.: placement by department. Credit will not be given for both this course and MATH 1015 or MATH 1023.* Solving equations and inequalities; function properties and graphs with transformations; inverse functions; linear, quadratic, polynomial, rational, exponential and logarithmic functions with applications; systems of equations.

#### MATH 1022 Plane Trigonometry (3)

[LCCN: CMAT 1223, Trigonometry] This is a General Education course. *Prereq.: MATH 1021 or placement by department. Credit will not be given for both this course and MATH 1015 or MATH 1023.* Trigonometric functions with applications; graphs with transformations; inverse functions; fundamental identities and angle formulas; solving equations; solving triangles with applications; polar coordinate system; vectors.

### MATH 1023 College Algebra and Trigonometry (5)

[LCCN: CMAT 1235 Algebra and Trigonometry] This is a General Education course. Prereq.: placement by department. Credit will not be given for both this course and MATH 1015, MATH 1021, or MATH 1022. This course fulfills 5 hrs. of the 6 hour General Education Analytical Reasoning requirement; a second Analytical Reasoning course will be required.

Function properties and graphs; inverse functions; linear, quadratic, polynomial, rational, exponential and logarithmic functions; with applications systems of equations; partial fraction decomposition; conics; trigonometric functions and graphs; inverse trigonometric functions; fundamental identities and angle formulas; solving equations and triangles with applications; polar coordinate system; vectors.

#### MATH 1025 Mathematics of Commerce (3)

Prereq.: MATH 1015, MATH 1021, or MATH 1023. Offered by Independent and Distance Learning only. Interest, discount, annuities, depreciation and insurance.

#### MATH 1029 Introduction to Contemporary Mathematics (3)

[LCCN: CMAT 1103, Contemporary Math] This is a General Education course. *Primarily for students in liberal arts and social sciences*. Mathematical approaches to contemporary problems, handling of data and optimization using basic concepts from algebra, geometry and discrete mathematics.

#### MATH 1100 The Nature of Mathematics (3)

[LCCN: CMAT 1103, 1313, Contemporary Math, Finite Math] This is a General Education course. *Not for science, engineering or mathematics majors. For students who desire an exposure to mathematics as part of a liberal education.* Logic; the algebra of logic, computers and number systems; networks and combinations; probability and statistics.

# MATH 1201 Number Sense and Open-Ended Problem Solving (3)

Prereq.: MATH 1021 or MATH 1023. Primarily for students in the early childhood education PK-3 teacher certification curriculum or the elementary grades education curriculum. Cardinality and integers; decimal representation and the number line; number sense; open ended problem solving strategies; expressions and equation solving; primes, factors, and proofs; ratio and proportion; written communication of mathematics.

# MATH 1202 Geometry, Reasoning and Measurement (3)

Prereq.: MATH 1201. Primarily for students in the early childhood education PK-3 teacher certification curriculum or the elementary grades education curriculum. Geometry and measurement in two and three dimensions; similarity; congruence; Pythagorean Theorem; written communication of mathematics.

# MATH 1431 Calculus with Business and Economic Applications (3)

[LCCN: CMAT 2103, Applied Calculus] This is a General Education course. *Prereq.: MATH 1021 or MATH 1023. Credit will be given for only one of the following: MATH 1431, MATH 1550, MATH 1551. 3 hrs. lecture; 1 hr. lab.* Differential and integral calculus of algebraic, logarithmic and exponential functions; applications to business and economics such as maximum-minimum problems, marginal analysis and exponential growth models.

# MATH 1435 Mathematics for Business Analysis (3)

*Prereq.: MATH 1431. Offered by Independent and Distance Learning only.* Sets and counting; probability, including conditional probability, discrete and continuous random variables, variance and normal distributions; matrices and echelon method for solving systems of equations; functions of several variables and partial derivatives.

### MATH 1550 Analytic Geometry and Calculus I (5)

[LCCN: CMAT 2115, Calculus I] This is a General Education course. An honors course, MATH 1551, is also available. Prereq.: An appropriate ALEKS placement score. Credit will be given for only one of the following: MATH 1431, MATH 1550, MATH 1551. Limits, derivatives, and integrals of algebraic, exponential, logarithmic, and trigonometric functions, with applications.

# MATH 1551 HONORS: Analytic Geometry and Calculus I (5)

This is a General Education course. Same as MATH 1550, with special honors emphasis for qualified students. Prereq.: An appropriate ALEKS honors placement score. Credit will not be given for this course and MATH 1431 or MATH 1550.

### MATH 1552 Analytic Geometry and Calculus II (4)

[LCCN: CMAT 2124, Calculus II] This is a General Education course. An honors course, MATH 1553, is also available. Prereq.: MATH 1550 or MATH 1551. Credit will not be given for both this course and MATH 1553 or MATH 1554. Techniques of integration,

parametric equations, analytical geometry, polar coordinates, infinite series, vectors in low dimensions; introduction to differential equations and partial derivatives.

## MATH 1553 HONORS: Analytic Geometry and Calculus II (4)

This is a General Education course. Same as MATH 1552 with special honors emphasis for qualified students. Credit will not be given for both this course and MATH 1552 or MATH 1554.

### MATH 1554 Calculus II for Life Sciences (4)

[LCCN: CMAT 2124, Calculus II] This is a General Education course. Prereq.: MATH 1550 or MATH 1551. Credit will not be given for this course and either MATH 1552 or MATH 1553. Does not serve as a prerequisite requirement for higher level Math courses. Designed for biological science majors. Techniques of integration, introduction to differential equations, stability of equilibrium points, elementary linear algebra, elements of multivariable calculus, systems of differential equations.

#### MATH 2020 Solving Discrete Problems (3)

*Prereq.: MATH 1550 or MATH 1551.* Logic, counting, discrete probability, graph theory and number theory.

# MATH 2025 Integral Transforms and Their Applications (3)

*Prereq.: MATH 1552* or MATH 1553. Introduction to mathematical proofs and structures using selected topics from analysis; series of functions, Fourier series, Fourier integrals and introduction to wavelets; applications in differential equations and signal processing.

### MATH 2030 Discrete Dynamical Systems (3)

*Prereq.: MATH 1552 or MATH 1553, permission of instructor.* Dynamical systems with discrete time and in one spatial dimension; hyperbolicity; quadratic maps; chaos; structural stability; bifurcation theory; and higher dimensional systems.

#### MATH 2057 Multidimensional Calculus (3)

An honors course, MATH 2058, is also available. Prereq.: MATH 1552 or MATH 1553. Credit will not be given for both this course and MATH 2058. Three-dimensional analytic geometry, partial derivatives, multiple integrals.

## MATH 2058 HONORS: Multidimensional Calculus (3)

Same as MATH 2057, with special honors emphasis for qualified students. Credit will not be given for both this course and MATH 2057.

#### MATH 2060 Technology Lab (1)

Prereq.: credit or concurrent enrollment in MATH 2057 or MATH 2058. Students are encouraged to enroll in MATH 2057 and MATH 2060 concurrently. Use of computers for investigating, solving and documenting mathematical problems; numerical, symbolic and graphical manipulation of mathematical constructs discussed in MATH 1550, MATH 1552 and MATH 2057.

### MATH 2065 Elementary Differential Equations (3)

Prereq.: MATH 1552 or MATH 1553. Credit will be given for only one of the following: MATH 2065, MATH 2070, MATH 2090. Ordinary differential equations; emphasis on solving linear differential equations.

# MATH 2070 Mathematical Methods in Engineering (4)

Prereq.: MATH 1552 or MATH 1553. Credit will be given for only one of the following: MATH 2065, MATH 2070, MATH 2090. Ordinary differential equations, Laplace transforms, linear algebra and Fourier series; physical applications stressed.

### MATH 2085 Linear Algebra (3)

*Prereq.: MATH 1552 or MATH 1553. Credit will not be given for both this course and MATH 2090.* Systems of linear equations, vector spaces, linear transformations, matrices, determinants.

# MATH 2090 Elementary Differential Equations and Linear Algebra (4)

*Prereq.: MATH* 1552 or MATH 1553. *Credit will not be given for both this course and MATH* 2065, *MATH* 2070, *or MATH* 2085. Introduction to first order differential equations, linear differential equations with constant coefficients, and systems of differential equations; vector spaces, linear transformations, matrices, determinants, linear dependence, bases, systems of equations, eigenvalues, eigenvectors, and Laplace transforms.

# MATH 2203 Measurement: Proportional and Algebraic Reasoning (3)

Prereq.: Professional Practice I Block, 12 sem. hrs. of mathematics including MATH 1201 and MATH 1202, and concurrent enrollment in EDCI 3125.

Mathematics content course designed to be integrated in Praxis II with the principles and structures of mathematical reasoning applied to the grades 1-6 classroom. 2 hrs. lecture; 2 hrs. lab/field experience (as part of Professional Practice II Block). Development of a connected, balanced view of mathematics; interrelationship of patterns, relations, and functions; applications of algebraic reasoning in mathematical situations and structures using contextual, numeric, graphic, and symbolic representations; written communication of mathematics.

#### MATH 3002 Mathematics Classroom Presentations (2)

*Prereq.: BASC 2010 and BASC 2011.* Current standards for middle and high school mathematics and the mathematics certification exam. Students will prepare and present middle and/or high school mathematics lessons that incorporate this content and appropriate use of technology.

#### MATH 3003 Functions & Modeling (3)

*Prereq.: BASC 2011.* Using problem-based learning, technology and exploring in depth relationships between various areas of mathematics, students strengthen mathematical understandings of core concepts taught at the secondary level. Connections between secondary and college mathematics are investigated. Various topics from current standards for functions and statistics are included.

### MATH 3355 Probability (3)

*Prereq.: MATH 2057 or MATH 2058. Credit will not be given for this course and EE 3150.* Introduction to probability, emphasizing concrete problems and applications; random variables, expectation, conditional probability, law of large numbers, central limit theorem and stochastic processes.

#### MATH 3903 Methods of Problem Solving (2)

Prereq.: MATH 1552 or MATH 1553, and MATH 2070, MATH 2085 or MATH 2090 or consent of the department. Pass-fail grading. May be taken for a max. of 6 hrs. of credit when topics vary. Instruction and practice in solving a wide variety of mathematical and logical problems as seen in the Putnam competition.

### MATH 4005 Geometry (3)

*Prereq.*: MATH 2020. Foundations of geometry, including work in Euclidean and non-Euclidean geometries.

### MATH 4019 Calculus Internship Capstone (2)

*Prereq.: MATH 3003.* Students will be mentored by a calculus instructor and will participate in the planning and instruction of a recitation section for a calculus course. Skills and topics for teaching Calculus and Calculus AP will be included.

### MATH 4020 Capstone Course (3)

Prereq.: Students should be within two semesters of completing the requirements for a mathematics major and must have completed a 4000-level mathematics course with a grade of "C" or better, or obtain permission of the department. Provides opportunities for students to consolidate their mathematical knowledge and to obtain a perspective on the meaning and significance of that knowledge. Course work will emphasize communication skills, including reading, writing and speaking mathematics.

#### MATH 4023 Applied Algebra (3)

*Prereq.: MATH 2085 or MATH 2090. Credit will not be given for both this course and MATH 4200.* Finite algebraic structures relevant to computers: groups, graphs, groups and computer design, group codes, semigroups, finite-state machines.

#### MATH 4024 Mathematical Models (3)

*Prereq.: MATH 1552 or MATH 1553 and credit or registration in MATH 2085 or MATH 2090.* Construction, development and study of mathematical models for real situations; basic examples, model construction, Markov chain models, models for linear optimization, selected case studies.

# MATH 4025 Optimization Theory and Applications (3)

*Prereq.: MATH 2057 or MATH 2058 and credit or registration in MATH 2085 or MATH 2090.*. Basic methods and techniques for solving optimization problems; n-dimensional geometry and convex sets; classical and search optimization of functions of one and several variables; linear, nonlinear and integer programming.

### MATH 4027 Differential Equations (3)

*Prereq.: MATH 2057 or MATH 2058 and MATH 2085 or MATH 2090*. Ordinary differential equations, with attention to theory.

#### MATH 4031 Advanced Calculus I (3)

*Prereq.: MATH 2057 or MATH 2058 and either MATH 2085 or MATH 2090.* Completeness of the real line, Bolzano-Weierstrass theorem and Heine-Borel theorem; continuous functions including uniform convergence and completeness of C [a,b]; Riemann integration and the Darboux Criterion.

### MATH 4032 Advanced Calculus II (3)

*Prereq.: MATH 4031 or equivalent.* Derivative, including uniform convergence, the mean value theorem and Taylor's Theorem; absolute and uniform convergence of series, completeness of sequence spaces, dual spaces; real analytic functions; functions of bounded variation, the Stieltjes integral and the dual of C [a,b].

# MATH 4035 Advanced Calculus of Several Variables (3)

*Prereq.: MATH 4031.* Topology in n-dimensional space, differential calculus in n-dimensional space, inverse and implicit function theorems.

### MATH 4036 Complex Variables (3)

Prereq.: MATH 2057 or MATH 2058. Analytic functions, integration, power series, residues and conformal mapping.

### MATH 4038 Mathematical Methods in Engineering (3)

Also offered as ME 4563. Prereq.: MATH 2065 or MATH 2070 or MATH 2090; and MATH 2057 or MATH 2058. Vector analysis; solution of partial differential equations by the method of separation of variables; introduction to orthogonal functions including Bessel functions.

#### MATH 4039 Introduction to Topology (3)

*Prereq.: MATH 2057 or MATH 2058.* Examples and classification of two-dimensional manifolds, covering spaces, the Brouwer theorem and other selected topics.

#### MATH 4050 Interest Theory (5)

*Prereq.: MATH 3355.* Measurement of interest (including accumulated and present value factors), annuities certain, yield rates, amortization schedules and sinking funds, bonds and related securities, derivative instruments and hedging and investment strategies.

#### MATH 4056 Mathematical Statistics (4)

*Prereq.: MATH 3355.* Statistical inference including hypothesis testing, estimators, and goodness-of-fit. Analysis of time series including moving-average, regression, autoregressive, and autoregressive-moving-average models.

#### MATH 4058 Elementary Stochastic Processes (3)

*Prereq.: MATH 3355 and either MATH 2085 or MATH 2090.* Markov chains, Poisson process and Brownian motion.

### MATH 4064 Numerical Linear Algebra (3)

Prereq.: MATH 1552 or MATH 1553 and one of MATH 2057 or MATH 2058 or MATH 2085 or MATH 2090. Gaussian elimination and LU factorization, tridiagonal systems, vector and matrix norms, singular value decomposition, condition number, least squares problem, QR factorization, iterative methods, power methods for eigenvalues and eigenvectors, applications.

### MATH 4065 Numerical Analysis (3)

*Prereq.: MATH 2057 or MATH 2058.* An introduction to numerical methods in basic analysis, including root-finding, polynomial interpolation, numerical integration and differentiation, splines and wavelets.

### MATH 4066 Numerical Differential Equations (3)

*Prereq.*: Must take MATH 2057 or MATH 2058 and one of the following: 1) *MATH 2070, 2) MATH 2090, 3) MATH 4027, or 4) both MATH 2085 and MATH 2065.* Numerical solutions of initial value problems and boundary value problems for ordinary and partial differential equations.

### MATH 4153 Finite Dimensional Vector Spaces (3)

*Prereq.: MATH 2085 or MATH 2090.* Vector spaces, linear transformations, determinants, eigenvalues, vectors and topics such as inner product space and canonical forms.

### MATH 4158 Foundations of Mathematics (3)

*Prereq.: MATH 2057 or MATH 2058.* Rigorous development of the real numbers, sets, relations, product spaces, order and cardinality.

### MATH 4171 Theory of Graphs (3)

*Prereq.: MATH 2085 or MATH 2090.* Fundamental concepts of undirected and directed graphs, trees, connectivity and traversability, planarity, colorability, network flows, matching theory and applications.

### MATH 4172 Combinatorics (3)

*Prereq.: MATH 2085 or MATH 2090.* Topics selected from permutations and combinations, generating functions, principle of inclusion and exclusion, configurations and designs, matching theory, existence problems, applications.

#### MATH 4181 Elementary Number Theory (3)

*Prereq.: MATH 2057 or MATH 2058 or MATH 2085 or MATH 2085 or MATH 2090.* Divisibility, Euclidean algorithm, prime numbers, congruences and topics such as Chinese remainder theorem and sums of integral squares.

### MATH 4200 Abstract Algebra I (3)

*Prereq.: MATH 2085 or MATH 2090. Credit will not be given for both this course and MATH 4023.* Elementary properties of sets, relations, mappings, integers; groups, subgroups, normal subgroups, quotient groups, homomorphisms, automorphisms and permutation groups; elementary properties of rings.

### MATH 4201 Abstract Algebra II (3)

*Prereq.: MATH 4200.* Ideals in rings, factorization in polynomial rings; unique factorization and Euclidean domains, field extensions, splitting fields, finite fields, Galois theory.

#### MATH 4325 Fourier Transforms (3)

Prereq.: MATH 1552 or MATH 1553, and one of MATH 2057, MATH 2058, MATH 2065, MATH 2070, MATH 2085, MATH 2090. For students majoring in mathematics, physics and engineering. Fourier analysis on the real line, the integers and finite cyclic groups; the fast Fourier transform; generalized functions; attention to modern applications and computational methods.

#### MATH 4340 Partial Differential Equations (3)

Prereq.: either MATH 2057 or MATH 2058 and one of the following: 1) MATH 2070, 2) MATH 2090, or 3) both MATH 2065 and MATH 2085. First-order partial differential equations and systems, canonical second-order linear equations, Green's functions, method of characteristics, properties of solutions and applications.

#### MATH 4345 Special Functions (3)

Prereq.: either MATH 2057 or MATH 2058, and one of the following: 1) MATH 2070, 2) MATH 2090, or 3) MATH 2065 and MATH 2085. Sturm-Liouville problems, orthogonal functions (Bessel, Laguerre, Legendre, Hermite), orthogonal expansions including Fourier series, recurrence relations and generating functions, gamma and beta functions, Chebychev polynomials and other topics.

#### MATH 4700 History of Mathematics (3)

Prereq.: MATH 2057 or MATH 2058, MATH 2020, and MATH 2085 or MATH 2090; students entering the course should have a firm sense of what constitutes a proof. This course will have substantial mathematical content; topics such as early Greek mathematics, from Euclid to Archimedes; algebra and number theory from Diophantus to the present; the calculus of Newton and Leibniz; the renewed emphasis on rigor and axiomatic foundations in the 19th and 20th centuries; interactions of mathematics with technology and the natural sciences; biographies of significant mathematicians.

#### MATH 4997 Vertically Integrated Research (3)

May be taken for a maximum of 24 hours with consent of instructor. This course is intended to provide opportunities for students to learn about mathematical research and to engage in mathematical research in a vertically integrated learning and research community. Undergraduate students, graduate students, postdoctoral researchers and faculty may work together as a unit to learn and create new mathematics. Possible formats include group reading and exposition, group research projects, written and oral presentations. Undergraduate students may have a research capstone experience or write an honors thesis as part of this course.

#### MATH 4999 Selected Readings in Mathematics (1-3)

Prereq.: consent of department. May be taken for a max. of 9 sem. hrs. credit.

#### MATH 6301 Implementing Curriculum Standards for Mathematics in the Elementary Grades (1-3)

May be repeated for up to 9 sem. hrs. of credit if department certifies that topics do not overlap. This course is intended primarily for participants in teacher-training programs. Mathematics selected from nationally recognized curriculum standards for the elementary grades, treated with attention to depth and the specific needs of teachers.

### MATH 6302 Implementing Curriculum Standards for Mathematics in the Middle Grades (1-3)

May be repeated for up to 9 sem. hrs. of credit if department certifies that topics do not overlap. This course is intended primarily for participants in teacher-training programs. Mathematics selected from nationally recognized curriculum standards for the middle grades, treated with attention to depth and the specific needs of teachers.

# MATH 6303 Implementing Curriculum Standards for Mathematics in High School (1-3)

May be repeated for up to 9 sem. hrs. of credit if department certifies that topics do not overlap. This course is intended primarily for participants in teacher-training programs. Mathematics selected from nationally recognized curriculum standards for high school, treated with attention to depth and the specific needs of teachers.

# MATH 6893 Seminar in Mathematics for Secondary Teachers (1-3)

*Prereq.: consent of department. May be repeated for a max. of 6 sem. hrs. when topics vary.* Topics of interest to teachers of secondary school mathematics.

### MATH 7001 Communicating Mathematics I (1)

*Prereq.: consent of department.* Practical training in the teaching of undergraduate mathematics; how to write mathematics for publication; other issues relating to mathematical exposition.

#### MATH 7002 Communicating Mathematics II (1)

*Prereq.: consent of department.* Practical training in the written and oral presentation of mathematical papers; the teaching of mathematics and the uses of technology in the mathematics classroom.

#### MATH 7210 Algebra I (3)

*Prereq.: MATH 4200 or equivalent.* Groups: Group actions and Sylow Theorems, finitely generated abelian groups; rings and modules: PIDs, UFDs, finitely generated modules over a PID, applications to Jordan canonical form, exact sequences.

### MATH 7211 Algebra II (3)

*Prereq.: MATH* 7210 or equivalent. Fields: algebraic, transcendental, normal, separable field extensions; Galois theory, simple and semisimple algebras, Wedderburn theorem, group representations, Maschke's theorem, multilinear algebra.

#### MATH 7220 Commutative Algebra (3)

*Prereq.: MATH 7211.* Commutative rings and modules, prime ideals, localization, noetherian rings, primary decomposition, integral extensions and Noether normalization, the Nullstellensatz, dimension, flatness, graded rings, Hilbert polynomial, valuations, regular rings, homological dimension, depth, completion, Cohen-Macaulay modules.

#### MATH 7230 Topics in Number Theory (3)

Prereq.: MATH 7211. May be repeated for credit with consent of department for a maximum of 9 credit hours. Topics in number theory such as algebraic integers, ideal class group, Galois theory of prime ideals, cyclotomic fields, class field theory, Gauss sums, quadratic fields, local fields, elliptic curves, L-functions and Dirichlet series, modular forms, Dirichlet's theorem and Prime Number theorem, Diophantine equations, Circle method.

#### MATH 7240 Topics in Algebraic Geometry (3)

*Prereq.: MATH 7211. May be repeated for credit with consent of department for a maximum of 9 credit hours.* Topics in algebraic geometry such as affine and projective varieties, morphisms and rational mappings, nonsingular varieties, sheaves and schemes, sheaf cohomology, algebraic curves and surfaces, elliptic curves, toric varieties, real algebraic geometry.

#### MATH 7250 Representation Theory (3)

*Prereq.: MATH 7211.* Representations of finite groups, group algebras, character theory, induced representations, Frobenius reciprocity, Lie algebras and their structure theory, classification of semi-simple Lie algebras, universal enveloping algebras and the PBW theorem, highest weight representations, Verma modules, and finite-dimensional representations.

#### MATH 7260 Homological Algebra (3)

*Prereq.: MATH 7211.* Modules over a ring, projective and injective modules and resolutions, abelian categories, functors and derived functors, Tor and Ext, homological dimension of rings and modules, spectral sequences, and derived categories.

#### MATH 7280 Seminar in Commutative Algebra (1-3)

*Prereq.: consent of department. May be repeated for credit with consent of department.* Advanced topics such as commutative rings, homological algebra, algebraic curves or algebraic geometry.

# MATH 7290 Seminar in Algebra and Number Theory (1-3)

*Prereq.: consent of department. May be repeated for credit with the consent of the department.* Advanced topics such as algebraic number theory, algebraic semigroups, quadratic forms or algebraic K-theory.

#### MATH 7311 Real Analysis I (3)

*Prereq.: MATH 4032 or equivalent.* Abstract measure and integration theory with application to Lebesgue measure on the real line and Euclidean space.

### MATH 7320 Ordinary Differential Equations (3)

*Prereq.: MATH 2085 and MATH 4031 or equivalent.* Existence and uniqueness theorems, approximation methods, linear equations, linear systems, stability theory; other topics such as boundary value problems.

## MATH 7325 Numerical Analysis and Applications (3)

Prereq.: MATH 4065 or equivalent. Finite difference methods; finite element methods; iterative methods; methods of parallel computing; applications to the sciences and engineering.

#### MATH 7330 Functional Analysis (3)

Banach spaces and their generalizations; Baire category, Banach-Steinhaus, open mapping, closed graph, and Hahn-Banach theorems; duality in Banach spaces, weak topologies; other topics such as commutative Banach algebras, spectral theory, distributions, and Fourier transforms.

#### MATH 7350 Complex Analysis (3)

*Prereq.: MATH 7311 or equivalent.* Theory of holomorphic functions of one complex variable; path integrals, power series, singularities, mapping properties, normal families, other topics.

#### MATH 7360 Probability Theory (3)

*Prereq.: MATH 7311 or equivalent.* Probability spaces, random variables and expectations, independence, convergence concepts, laws of large numbers, convergence of series, law of iterated logarithm, characteristic functions, central limit theorem, limiting distributions, martingales.

#### MATH 7365 Applied Stochastic Analysis (3)

*Prereq.: MATH 7360.* Brownian motion, basic stochastic calculus, applications to finance.

#### MATH 7366 Stochastic Analysis (3)

*Prereq.: MATH 7360.* Wiener process, stochastic integrals, stochastic differential equations.

# MATH 7370 Lie Groups and Representation Theory (3)

*Prereq.: MATH 7311, MATH 7210, and MATH 7510 or equivalent.* Lie groups, Lie algebras, subgroups, homomorphisms, the exponential map. Also topics in finite and infinite dimensional representation theory.

### MATH 7375 Wavelets (3)

*Prereq.: MATH 7311 or equivalent.* Fourier series; Fourier transform; windowed Fourier transform or short-time Fourier transform; the continuous wavelet transform; discrete wavelet transform; multiresolution analysis; construction of wavelets.

### MATH 7380 Seminar in Functional Analysis (1-3)

*Prereq.: consent of department. May be repeated for credit with consent of department.* Advanced topics such as topological vector spaces, Banach algebras, operator theory or nonlinear functional analysis.

## MATH 7384 Topics in the Mathematics of Material Science (3)

Prereq.: consent of department. May be repeated for credit with consent of department for a max. of 9 credit hrs. Advanced topics in the mathematics of material science, including mathematical techniques for the design of optimal structural materials, solution of problems in fracture mechanics, design of photonic band gap materials and solution of basic problems in the theory of superconductivity.

# MATH 7386 Theory of Partial Differential Equations (3)

*Prereq.: MATH 7330.* Sobolev spaces. Theory of second order scalar elliptic equations: existence, uniqueness and regularity. Additional topics such as: direct methods of the calculus of variations, parabolic equations, eigenvalue problems.

#### MATH 7390 Seminar in Analysis (1-3)

*Prereq.: consent of department. May be repeated for credit with consent of department.* Advanced topics such as harmonic analysis, partial differential equations, Lie group representation theory, several complex variables or probability theory.

#### MATH 7400 Combinatorial Theory (3)

Problems of existence and enumeration in the study of arrangements of elements into sets; combinations and permutations; other topics such as generating functions, recurrence relations, inclusion-exclusion, Polya's theorem, graphs and digraphs, combinatorial designs, incidence matrices, partially ordered sets, matroids, finite geometries, Latin squares, difference sets, matching theory.

### MATH 7410 Graph Theory (3)

*Prereq.: MATH 2085 and MATH 4039, or equivalent.* Matchings and coverings, connectivity, planar graphs, colorings, flows, Hamilton graphs, Ramsey theory, topological graph theory, graph minors.

#### MATH 7490 Seminar in Combinatorics, Graph Theory and Discrete Structures (1-3)

*Prereq.: consent of department. May be repeated for credit with consent of department.* Advanced topics such as combinatorics, graph theory, automata theory or optimization.

### MATH 7510 Topology I (3)

*Prereq.: MATH 2057 or equivalent.* Basic notions of general topology, with emphasis on Euclidean and metric spaces, continuous and differentiable functions, inverse function theorem and its consequences.

#### MATH 7512 Topology II (3)

*Prereq.: MATH 7510.* Theory of the fundamental group and covering spaces including the Seifert-Van Kampen theorem; universal covering space; classification of covering spaces; selected areas from algebraic or general topology.

### MATH 7520 Algebraic Topology (3)

*Prereq.: MATH 7210 and MATH 7510 or equivalent.* Basic concepts of homology, cohomology and homotopy theory.

# MATH 7550 Differential Geometry and Topology (3)

*Prereq.: MATH 7210 and MATH 7510 or equivalent.* Manifolds, vector fields, vector bundles, transversality, Riemannian geometry, other topics.

## MATH 7590 Seminar in Geometry and Algebraic Topology (1-3)

*Prereq.: consent of department. May be repeated for credit with consent of department.* Advanced topics such as advanced algebraic topology, transformation groups, surgery theory, sheaf theory or fiber bundles.

# MATH 7710 Advanced Numerical Linear Algebra (3)

*Prereq.: MATH 4032 or equivalent; MATH 4153 or equivalent.* Gaussian elimination: LU and Cholesky factorizations; Least squares problem: QR factorization and Householder algorithm, backward stability, singular value decomposition and conditioning; Iterative methods: Jacobi, Gauss-Seidel and conjugate gradient; Eigenproblems: power methods and QR algorithm.

#### MATH 7999 Selected Readings in Mathematics (1-3)

*Prereq.: consent of department. May be repeated for credit with consent of department.* 

**MATH 8000 Thesis Research (1-12 per sem.)** *"S"/"U" grading.* 

MATH 9000 Dissertation Research (1-12 per sem.) "S"/"U" grading.

### Mass Communication: Digital Advertising

#### MC 2040 The Advertising Industry in Society (3)

Introduction to advertising as both a cultural project and producer; emphasis on a strong theoretical foundation for how advertising campaigns are planned and executed; how audiences make meaning from them; historical context for advertising from traditional media through social/digital media.

# MC 3031 Digital Advertising Creative Strategies (3)

*Prereq.:* MC 2010, MC 2015, MC 2035. Majors only. 2 hrs. lecture; 2 hrs. lab. Introduction to advertising creative strategy development and principles of design across media; emphasis on techniques for the creation and production of digital advertising messages.

#### MC 3035 Quantitative Audience Analysis (3)

*Prereq.*: MC 2035 or MKT 3401, MC 2040. *Coreq.*: to be taken concurrently with MC 3036. *Majors only*. Practical, quantitative analysis of audiences. Introduction to the role of research in the advertising planning process with a focus on evaluating the quality of secondary data sources and to using data to make strategic advertising decisions.

#### MC 3036 Qualitative Audience Analysis (3)

*Prereq.:* MC 2035 or MKT 3401, MC 2040. *Coreq.:* to be taken concurrently with MC 3035. *Majors only.* Basic skills needed to conduct primary research aimed at developing deeper insights into consumer behaviors and attitudes, focusing on qualitative and projective techniques common to the advertising industry.

#### MC 4031 Advertising Design (3)

*Prereq.:* MC 2010, MC 2015, MC 2035, and MC 3031. Majors only. 2 hrs. lecture; 2 hrs. lab. Advertising design techniques for print and electronic media, using computerized desktop publishing procedures; development of layouts and storyboards; emphasis on creative approaches to advertising problems.

#### MC 4032 Advertising Media Sales (3)

2 hrs. lecture; 2 hrs. lab. Analysis of various media types and vehicles to deliver advertising messages, with emphasis on audience measurement techniques, concepts and services.

#### MC 4040 Advertising Problems (3)

*Prereq.: MC 3031, MC 3035, and MC 3036. Majors only.* Seminar in advertising problems and related readings.

#### MC 4045 Advertising Campaigns (3)

*Prereq.*: MC 2035, *MC 3031*, *MC 4031 or MC 4040*. *Majors only. 2 hrs. lecture; 2 hrs. lab.* Team development of advertising campaigns on a competitive basis (simulated advertising agency operations); emphasis on research, marketing and advertising problems; budgetary planning, media strategy and creative design.

### Mass Communication: General Courses

#### MC 2000 Introduction to Mass Media (3)

This is a General Education course. *Credit will not be given for this course and MC 2001. Required of all mass communication majors.* The mass communication process within society; development, structure, function, and cultural impact of mass communication. Develops media literacy and examines media professions.

#### MC 2001 HONORS: Introduction to Mass Media (3)

This is a General Education course. Same as MC 2000, with special honors emphasis for qualified students. Credit will not be given for this course and MC 2000.

#### MC 2002 Sports and Mass Communication (3)

This is a General Education course. Examines how mass communication operates within sports and the sports industries.

#### MC 2010 Media Writing (3)

Majors and minors only or permission of department. A grade of "B" or better required for entry into the Manship School of Mass Communication. Credit will not be given for this course and MC 2011. Required of all mass communication majors. 2 hrs. lecture; 2 hrs. lab. Beginning writing course for mass communication. Introduces skills associated with writing, grammar, style and information gathering for mass media

#### MC 2011 HONORS: Media Writing (3)

Same as MC 2010, with special honors emphasis for qualified students. Credit will not be given for this course and MC 2010.

#### MC 2015 Visual Communication (3)

Majors and minors only or permission of department. Credit will not be given for this course and MC 2016. Required of all mass communication majors. Strategies for the design, development and production of media programs using advanced computer and video systems. 2 hrs. lecture; 2 hrs. lab

#### MC 2016 HONORS: Visual Communication (3)

Same as MC 2015, with special honors emphasis for qualified students. Credit will not be given for this course and MC 2015.

#### MC 2025 The Business of Entertainment Media (3)

This is a General Education course. Examination of the creative, economic and legal factors that drive and constrain American popular media to provide students with the informative and strategic tools to become critical consumers of these media.

### MC 2030 Civic Engagement, Youth and Media (3)

This is a General Education course. *Also offered as POLI* 2030. Introduction to models of and skills for citizenship, with emphasis on mass media and political influences on how young Americans engage with civic life.

### MC 2035 Digital Brands (3)

*Prereq.: majors and minors only or permission of department.* Introduction to digital, mobile and social media; personal branding within the digital landscape; theoretical and practical foundations of digital media and its impact on and challenges to society.

#### MC 2700 Production and Performance (3)

*Prereq.: majors only. 2 hrs. lecture; 2 hrs. lab.* Production and performance techniques for use in video and audio programming of electronic media.

### MC 3019 HONORS: Foundations of Media Research (3)

#### MC 3080 Mass Media Law (3)

Prereq.: majors and minors only or permission of department. Credit will not be given for this course and MC 3081. Required of all mass communication majors. Legal rights of and restraints on the mass media; emphasis on First Amendment considerations.

#### MC 3081 HONORS: Mass Media Law (3)

Same as MC 3080, with special honors emphasis for qualified students. Credit will not be given for this course and MC 3080.

#### MC 3333 Multiculturalism and the Media (3)

Historical and contemporary exploration of portrayals and representations of global and domestic diverse groups across media.

#### MC 3650 Electronic Media and Society (3)

Organizational and economic foundations of electronic mass media; history, regulation, social significance and responsibility.

### MC 3998 Internship (3)

Prereq.: 3.0 GPA in 12 or more hrs. of mass communication and consent of internship faculty supervisor and school dean. Pass-fail grading. May be taken for a max. of 6 hrs. of credit toward the degree in Mass Communication. At least 15 hours of work per week (28 hrs. in a summer term, 240 total) under general supervision of a faculty member and direct supervision of a mass communication professional.

#### MC 4000 Media and the Military (3)

*Consent of instructor; \$50 field fee. 2 hrs. lecture; 2 hrs. lab* In depth study of the modern relationship between the media and the military.

## MC 4015 Advanced Visual Communication & Multimedia Web Design (3)

*Prereq.: MC* 2010 and *MC* 2015. 2 hr. lecture; 2 hrs. lab. Developing multimedia content for the Web; includes photo, audio and video editing.

#### MC 4042 Mass Media, Sports, and Society (3)

News coverage of the political, economic, and cultural roles of sports institutions and the social roles of professional athletes.

### MC 4050 Media Management (3)

*Prereq.: Majors only.* Concepts and principles of management, entrepreneurial leadership, organizational behavior and strategic planning applicable to media organization; study of social, political, ethical, technological and legal issues confronting media companies.

# MC 4090 Media Ethics and Social Responsibility (3)

Prereq.: majors or minors only or permission of department. Credit will not be given for this course and MC 4091. Required of all mass communication majors. Role of the media as socially responsible institutions; ethical issues, policies and practices in gathering, processing and disseminating content.

# MC 4091 HONORS: Media Ethics and Social Responsibility (3)

Same as MC 4090, with special honors emphasis for qualified students. Credit will not be given for this course and MC 4090.

#### MC 4095 American Media History (3)

*Credit will not be given for this course and MC 4096.* Themes and trends in the historical development of media, including journalism, advertising and public relations.

#### MC 4096 HONORS: American Media History (3)

Same as MC 4095, with special honors emphasis for qualified students. Credit will not be given for this course and MC 4095.

#### MC 4111 Mass Media Practices (3)

Prereq.: consent of Manship School of Mass Communication; 1 hr. lecture; 3 hrs. lab. Open to LSU undergraduates who qualify for entry into the University's Accelerated Master's Degree Program. Required of all students who enter the mass communication graduate program without a degree or professional experience in mass communication. May not be counted for undergraduate or graduate degree credit by Mass Communication majors. An intensive course in laboratory practice in the professional skills required of all media practitioners.

#### MC 4151 Field Experience (3)

*Prereq.: permission of instructor. 1 hr. lecture, 4 hrs. lab.* Individually arranged assignments and hours for the gathering, writing and producing media content in real-time situations with professional supervision, for regional newspapers, magazines, television stations or other professional media organizations.

#### MC 4550 Social Media Analysis & Creation (3)

Prereq.: MC 2035, majors and minors only or permission of department. 2 hr. lecture; 2 hr. lab. How to use social media analytics to create effective and interactive content.

#### MC 4600 Create Lab (3)

*Prereq.: MC 2035 and permission of instructor. 2 hrs. lecture; 2 hrs. lab.* An integrated and rigorous experience in new and emerging social media platform production. Student teams will develop a digital solution for a client.

#### MC 4720 Television Creative Projects (3)

Prereq.: majors only. Grade of "B" or better in MC 2010, and one of the following: MC 2005, MC 2040, MC 3010, MC 3504, and permission of the department. Masters students with projects requiring broadcast skills are encouraged to take this course. 1 hr. lecture; 4 hrs. lab. Techniques of television production for non-journalism projects; includes field production, nonlinear video editing, graphics and studio production.

# MC 4971 Special Topics in Mass Communication (3)

Also offered as CMST 4971. Prereq.: consent of instructor. May be taken for a max. of 6 hrs. of credit when topics vary. Analysis and discussion of a selected topic that goes beyond present advanced course offerings.

#### MC 4999 Independent Study (3)

Prereq.: GPA of at least 3.00 and consent of school. Passfail grading. Approval of written proposal required before enrolling. Readings, projects, conferences and reports under faculty direction.

# MC 7000 Proseminar in Mass Communication and Public Affairs (1)

*Pass-fail grading. Open to graduate students of mass communication only.* Introduction to graduate study in mass communication; topics include faculty research areas, survey of the field and professional and academic career preparation.

# MC 7001 Research Methods in Mass Communication (3)

Quantitative and qualitative methods for investigating critical issues in mass communication; may include surveys, content analysis, experiments, focus groups, interviews and other methods.

## MC 7002 Mass Communication Philosophy and Principles (3)

Examination of the most influential principles, philosophies and ideas underlying the development of the mass media in the Western world.

#### MC 7012 Survey Research Methods in Mass Communications (3)

Design, development, execution, and analysis of public opinion surveys as related to mass communication problems; practical issues related to survey sampling, questionnaire construction and design, modes in interviewing, interviewer training and interviewer effects and data preparation and analysis.

## MC 7014 Qualitative Research Methods in Mass Communication (3)

Application of qualitative methods to mass communication research, creation of qualitative research design; exploration of the philosophy of science, theory construction and the core issues involved in conducting qualitative research.

#### MC 7015 Mass Communication and Society (3)

Roles of the mass media; responsibilities and rights of the communicator; interaction of mass media and society; media effects.

#### MC 7018 Legal Problems of the Mass Media (3)

Specific current legal problems affecting the mass media; basic principles of legal research methods.

### MC 7019 Emerging Media: Theory, Application, & Effects (3)

The impact of changing technologies and public policies for entrepreneurship in media enterprises, especially new and emerging media systems.

#### MC 7021 Mass Communication Theory (3)

Survey and exploration of origins, basic concepts, debates and applications of major theories of mass communication; nature and utility of theoretical understanding of mass media ideologies, industries, content and reception.

#### MC 7022 Doctoral Seminar in Mass Communication Theory (3)

In-depth examination of key mass communication theories and their research origins.

#### MC 7024 Seminar in First Amendment Law (3)

Prereq.: MC 7018, an equivalent graduate-level mass media law course or permission of the instructor. Principles and theories underlying First Amendment jurisprudence as it relates to the press and speech; an examination of significant cases and legal issues through original research projects.

#### MC 7031 Media Effects (3)

Major theoretical perspectives pertaining to the social and psychological effects that media have on views and the ways that viewers understand, interpret and react to media messages.

#### MC 7032 Health and Science Communication (3)

Examination of the structure, meanings and implications of communication about health and science; the contexts in which health and science communication occur; health and science communication theories, terminology and concepts.

# MC 7042 Foundations of Strategic Communication (3)

Overview of strategic communication, concentrating on theory, research, planning, implementation and evaluation; how advertising, public relations, social media and marketing are used to develop integrated messages for a variety of audiences.

### MC 7043 Strategic Communication Campaigns (3)

*Prereq.: MC 7042.* Conceptualization and practice of strategic communication in a variety of settings; principles and contemporary practices used to develop and implement campaigns aimed at aligning and advancing organizational and stakeholder goals.

### MC 7044 Visual Communication (3)

Discussion and application of visual communication research and theory; usability and aesthetics of web design; applications for journalism, strategic communication and political communication.

#### MC 7201 Advanced Research Methods in Mass Communication and Public Affairs (3)

*Prereq.: MC 7001 or equivalent. Open to graduate students of mass communication and other fields of social sciences.* Advanced study of research methods, research designs and analysis applicable to mass communication and public affairs.

#### MC 7202 Experimental Applications in Mass Communication Research (3)

Evaluation and application of experimental methods and design in mass communication research.

### MC 7971 Independent Research: Mass Communication (1-3)

*Prereq.: consent of instructor and the associate dean for graduate studies. May be repeated for 6 sem. hrs. of credit.* For advanced graduate students who wish to pursue research on special problems, exclusive of thesis or dissertation, for which there is no organized course.

## MC 7999 Special Topics in Mass Communication (3)

*Prereq.: consent of instructor. May be taken for a max. of 9 hrs. of credit when topics vary.* Intensive advanced study with reading and discussion of topics in mass communication.

### MC 8000 Thesis Research (1-12 per sem.)

"S"/"U" grading.

#### MC 8001 Professional Internship (3)

Prereq.: skills and professional courses as specified in Manship Policy Statement 304; contractual agreement with outside organization's practicum supervisor; consent of faculty intern coordinator; and permission from the school''s associate dean for graduate studies. Written report containing a graduate research component is required. Pass-fail grading.

The student works in a professional capacity for at least 15 hours a week (28 hours in summer term) under the general supervision of a faculty member and direct supervision of a management-level practitioner in some field of mass communication (advertising, journalism, electronic media, political communication, public relations or other appropriate organizational position).

### MC 8002 Professional Project (1-6)

A research component is required. A project, approved by the student's advisory committee, related to the student's area of professional interest.

#### MC 8009 Public Affairs Externship (9)

Prereq.: consent of Manship School of Mass Communication. Pass-fail grading. A research component is required. Students may be placed in one of a variety of management settings where the extern will be meaningfully engaged in public affairs planning and execution. An advanced full time field practicum in a professional public affairs context.

# **MC 9000** Dissertation Research (1-12 per sem.) "S"/"U" grading.

### Mass Communication: Journalism

#### MC 2005 Introduction to Journalism (3)

*Prereq.*: MC 2010. 2 *hrs. lecture;* 2 *hrs. lab.* Introduction to basic journalism practices, values and ethics including foundational reporting and writing skills needed for creating content across digital platforms.

#### MC 3002 Feature Writing (3)

Prereq.: MC 2005 and MC 2010 or permission of department. Credit will not be given for this course and MC 3003. 1 hr. lecture; 4 hrs. lab. Developing and writing feature stories, vignettes, and other human-interest material.

#### MC 3003 HONORS: Feature Writing (3)

Same as MC 3002, with special honors emphasis for qualified students. Credit will not be given for this course and MC 3002.

#### MC 3004 Business Journalism (3)

*Prereq.: MC 2010.* The fundamentals of reporting as it relates to relevant businesses through examining and reporting on the economy, stock and bond markets, business decisions, regulator's roles, and the effects on consumers.

#### MC 3005 In-depth Reporting (3)

*Prereq.*: MC 2005 and either MC 3103 or MC 3104. *Majors only*. Strategies for gathering and analyzing information and data that include traditional and digital public records, databases, and government documents to produce in-depth and investigative reporting projects.

#### MC 3101 Print Newsgathering and Editing (3)

*Prereq.:* MC 3102. Majors only. 2 hrs. lecture; 2 hrs. lab. Basic skills of reporting and news writing and primary editing process for accuracy, proper grammar and consistency of style.

# MC 3102 Broadcast Newsgathering and Producing (3)

*Prereq.: MC 2010. Majors only. 2 hrs. lecture; 2 hrs. lab.* Development of skills to report, write and produce a weekly television newscast and public affairs show.

### MC 3103 Advanced Print Newsgathering (3)

*Prereq.*: MC 2005. *Majors only.* 2 hrs. lecture; 2 hrs. lab. Specific application of newsgathering techniques; covering courts, law enforcement agencies, government, business; using polls and other statistical methods; relational databases.

#### MC 3104 Advanced Broadcast Newsgathering (3)

*Prereq.*: MC 2005. *Majors only. 2 hrs. lecture; 2 hrs. lab.* Development of advanced broadcast reporting and presentation skills; newsgathering focus on depth, context and presentation of information.

### MC 4250 Public Affairs Reporting (3)

*Prereq.*: MC 2000; MC 3103 or MC 3104 *or permission of instructor. Majors only. 2 hrs. lecture; 2 hrs. lab.* Using public records to document fraud, abuse or interesting and significant social change.

#### MC 4260 Long-Format Video Production (3)

*Prereq.*: MC 3104 or permission of instructor. Majors only. 2 hrs. lecture; 2 hrs. lab. Strategies in producing video programs to inform mass electronic media audiences.

### MC 4280 Television News Producing (3)

*Prereq.*: MC 2005, MC 3104. *Majors only. 2 hrs. lecture; 2 hrs. lab.* Instruction in the planning, assembling, producing, and performing of live television newscasts.

#### MC 4500 Advanced Journalism (3)

Prereq.: MC 2005, MC 3005, and either MC 3103 or MC 3104 or permission of instructor. Majors only. 1 hr. lecture; 3 hrs. lab. Techniques of newspaper editing and production; application of advanced reporting techniques; production of laboratory newspaper; techniques of producing all aspects of a television news program, including videography, nonlinear video editing, producing a newscast and on-set news performance.

#### MC 7040 Crisis Communication (3)

*Prereq.: permission of the instructor.* Theoretical and practical understanding of the news media's role in a crisis situation and the complexity of covering crisis. Students will understand the principles and problems associated with crisis coverage and management and will implement techniques to tell effective and ethical stories across disaster scenarios.

#### MC 7220 Issues and Public Affairs Reporting (3)

*Prereq.: permission of the instructor.* Focuses on democracy and journalism, by exploring the meaning of democratic life and how elements of democratic life are captured as news. Course also examines the role of journalism and politics in a complex society, the role of citizens in public life, new issues coverage within social

networks that allow for reporting depth and context and the impact of journalistic work in communities covered.

## Mass Communication: Public Relations

#### MC 3001 Public Relations Writing and Applications (3)

*Prereq.:* MC 2015, MC 2035, MC 3010. Majors only. 2 hrs. *lecture;* 2 hrs. *lab.* Development of strategies and technologies used in creating messages to strategically communicate with media, businesses, nonprofits, government, and other diverse internal and external audiences.

## MC 3010 Introduction to Public Relations (3) *Prereq.: MC 2010.*

*Majors and minors only*. History, theory and current communication strategies in public relations.

## MC 4002 Strategies for Public Relations and Social Media (3)

*Prereq.*: MC 2035, MC 3010. *Majors only*. Exploration of strategic communication cases that use both traditional and emerging media; emphasis on ethical and practical use of social media tools to complement or supplement traditional communication strategies and tactics.

#### MC 4004 Case Studies in Public Relations (3)

*Prereq.: MC 3010. Majors only.* Theoretical concepts of public relations practice applied to solution of strategic business, institutional, and organizational problems.

#### MC 4005 Public Relations Campaigns (3)

*Prereq.: MC 3001, MC 4020, and MC 4002. Majors only. 2 hrs. lecture; 2 hrs. lab.* Developing and implementing public relations communication campaigns; hands-on experience in designing and producing print and audiovisual materials for campaigns; emphasis on use of planning and evaluation techniques.

#### MC 4020 Public Relations Research (3)

*Prereq.:* MC 2035, MC 3010, MC 3001. Majors only. Introduction to the role of research in public relations; utilizing qualitative and quantitative methods and research tools necessary to conduct research that informs the public relations planning process and aides in the assessment/evaluation of PR activities.

## MC 7210 Public Communication Administration (3)

Principles of public affairs, issues management, and political communication; application of research techniques in communication campaigns, strategies of campaign settings; planning, organizing, staffing, leading and controlling communication campaigns in corporate and governmental settings.

## Mass Communication: Political Communication

# MC 3504 Introduction to Political Communication (3)

*Prereq.: majors and minors only.* Introduction to theory and practice of political communication; role of media in political campaigns, press-government relations and policymaking; implications for media, politicians and the public.

### MC 3505 Media and Policy Processes (3)

*Prereq.:* MC 3504. Majors and minors only. Impact of the media on American politics through their interactions with political actors and involvement in the policymaking process; use of strategic political communication in government, and the media's role in spotlighting policy problems and suggesting policy solutions.

#### MC 3510 Political Communication Research (3)

*Prereq.*: MC 2010, MC 2015, MC 3504. *Majors and minors only*. Measurement of public opinion through polls, focus groups, and other forms of communication; use and interpretation of public opinion by policymakers.

### MC 3520 Political Communication Writing (3)

*Prereq.*: MC 2010, MC 2015, MC 3504. 2 hrs. lecture; 2 hrs. lab. Theory and practice of writing for political and public affairs campaigns; research to write strategic messages.

## MC 4515 Case Studies in Media and Political Campaigns (3)

*Prereq.: majors and minors only.* Examination of political campaigns involving American media; the media client and message; developing media messages for political campaigns.

## MC 4520 Advanced Seminar in Political Communication (3)

*Prereq.: MC 3504 and MC 3505 or consent of instructor. Majors and minors only.* Lectures, discussions and research on topics relevant to all aspects of political communication. Includes discussion of theoretical foundations, empirical effects and normative and ethical implications of political communication processes in democratic governance.

#### MC 7004 The News Media and Governance (3)

News media influence on political actors, processes, and outcomes in American politics; public policy towards the news, strategic political communication, and influences of public officials and other political actors on the framing and structure of content.

### MC 7005 Public Opinion and Public Affairs (3)

Formation and development of public opinion; interaction of media organizations and public communication practitioners in building public support for ideas and policies.

#### MC 7033 Race & Gender in Political Communication (3)

Exploration of the role of race and gender in political communication; the role of political communication in reinforcing or challenging prevailing stereotypes and attitudes about race and gender.

### MC 7034 Breaux Symposium Research (3)

*Prereq.*: MC 7001 and MC 7021. Original research connected to topics raised at the annual Breaux Symposium.

## MC 7036 Seminar in Media and Public Affairs Theory (3)

Advanced studies in the application of mass communication theory to public affairs and public policy cases, problems and issues.

#### MC 7041 Political Communications Writing (3)

*Prereq.: permission of the instructor.* The study of political and public affairs writing and message development. Students will learn how to research and develop various forms of messages for different audiences and situations.

## **Mechanical Engineering**

## ME 2212 Introduction to Mechanical Engineering Design (2)

*Prereq.: ENGL 1001, CM 1020 or CM 1030, PHYS 2110. 1 hr. lecture; 2 hrs. lab.* Art and science of Mechanical Engineering design; reverse engineering; design methodologies; product realization; professional ethics; professional development.

### ME 2334 Thermodynamics (4)

*Prereq.: grade of "C" or better in CHEM 1202, MATH 1552, PHYS 2110.* Thermodynamic systems and control volumes; thermodynamic properties of simple substances, work and heat; 1st and 2nd law; power and refrigeration cycles; ideal gas mixtures, water-vapor mixtures and psychrometric chart; combustion.

## ME 2533 Introduction to Engineering Computation (3)

2 hrs. lecture; 3 hrs. lab. See CSC 2533.

## ME 2543 Simulation Methods for Mechanical Engineers (3)

*Prereq.: credit or registration in MATH 2070 or MATH 2090.* Computer-based problem solving techniques for mechanical engineering; numeric linear algebra and solution of ordinary differential equations; use of computers in simulations of mechanical engineering systems.

## ME 2733 Materials of Engineering (3)

*Prereq.: CHEM 1201 and credit or registration in PHYS 2112 or PHYS 2113.* Classification and study of engineering materials, their structure, properties and behavior; typical metals and alloys, plastics and rubber and ceramic materials; phase equilibria and manipulation of properties and behavior by adjustment of composition and processing variables; responses of engineering materials to stress and environmental variables.

### ME 3133 Dynamics (3)

Prereq.: grade of "C" or better in CE 2450 and MATH 1552, credit or registration in CHEM 1212 or PHYS 2108. 2 hrs. lecture; 2 hrs. recitation. Vectorial treatment of kinematics and kinetics of particles and rigid bodies; force, mass, acceleration; impulse and momentum; work and energy.

#### ME 3143 System Dynamics and Modeling (3)

*Prereq.: ME 3133, grade of "C" or better in MATH 2070 or MATH 2090 and credit or registration in ME 3834.* Bond graph and lumped-parameter techniques for deriving dynamic equations of physical systems; time and frequency domain analyses, numerical simulation of mechanical systems.

#### ME 3249 Engineering Practice (1-3)

Offered in Su Prereq.: ME 2334 and consent of instructor. Pass-fail grading. A minimum of 6 weeks of full-time employment by an industry participating in the summer program. Selected engineering problems in an industrial environment.

### ME 3333 Thermodynamics (3)

*Prereq.: PHYS 2110 and MATH 1552 or equivalent. Not open to mechanical engineering majors.* Basic laws of thermodynamics, availability, perfect gases and pure substances, fluid flow and basic heat transfer.

## ME 3603 Instrumentation and Measurement (3)

Prereq.: grade of "C" or better in ENGL 1001, EE 3950, ME 3143. An Honors course, ME 3613, is also available. Credit will not be given for both this course and ME 3613. 2 hrs. lecture; 3 hrs. lab. Basic science and technology of instrumentation and measurement systems; fundamental measurement theory; statistical error estimation; error propagation; instrumentation specifications; analog and digital instrumentation fundamentals; data acquisition and analysis; extensive technical report writing.

## ME 3613 HONORS: Instrumentation and Measurements (3)

Prereq.: EE 3950, ME 3143 and proficiency in English as required by the College of Engineering. 2 hrs. lecture; 3 hrs. lab. Honors equivalent of ME 3603. Credit will not be given for both this course and ME 3603.

## ME 3633 Manufacturing Processes & Methods (3)

*Prereq.: CM 1020 or CM 1030 and ME 2733. 2 hrs. lecture; 2 hrs. lab.* Modern manufacturing processes integrated into total manufacturing systems; CAD/CAM flexible manufacturing operations; metal casting, forming, removal; welding processes and machinery; fine measurement, inspection and quality assurance.

## ME 3701 Materials of Engineering Laboratory (1)

*Prereq.:* grade of "C" or better in ENGL 1001 or equivalent; *ME 2733; and credit or registration in CE 3400.* Demonstrative and participative experiments to develop better understanding of characteristics of metals, ceramics and plastics.

## ME 3752 Material Selection for Mechanical Engineers (2)

*Prereq.: ME 3701 or equivalent; credit or registration in CE 3400.* Analysis of mechanical and other properties of engineering materials required for material selection; advanced engineering materials in mechanical engineering; applications and problems in processing and shaping; materials in selected mechanical systems.

#### ME 3834 Fluid Mechanics (4)

*Prereq.: ME 2334, ME 2543, ME 3133; MATH 2057 and a grade of "C" or better in MATH 2070 or MATH 2090.* Statics, kinematics and dynamics of continuum liquids and gases; conservation laws (mass, momentum, energy); integral analysis; differential analysis and similarity; internal and external viscous flows; compressible flows.

### ME 4133 Machine Design I: Kinematics of Machinery (3)

*Prereq.*: ME 2543, *ME 3133 or equivalent*. Kinematic and dynamic analysis and synthesis of mechanisms.

### ME 4143 Mechanical Vibrations (3)

*Prereq.: CE 3400, ME 3143, ME 4133 and a grade of "C" or better in MATH 2090 or equivalent.* Basic principles of oscillating mechanical systems; single and multiple degrees of freedom; dynamic balancing; applications to mechanical systems; continuous systems vibrations.

## ME 4183 Theory and Design of Mechanical Control Systems (3)

*Prereq.: grade of "C" or better in MATH 2070 or MATH 2090; ME 3143 and credit or registration in ME 3603.* Basic principles, concepts, characteristics and performance of linear feedback control systems; stability of linear systems; frequency response methods; compensator design in the frequency domain.

### ME 4193 Vehicle Dynamics (3)

*Prereq.*: ME 3143. Analysis and performance of wheeled vehicles, including tire mechanics, handling and ride.

## ME 4201 Mechanical Engineering Design Laboratory (1)

*Prereq.: credit or registration in ME 4183 or equivalent. 3 hrs. lab.* Experiments involving basic concepts in machine design.

# ME 4202 Mechanical Engineering Capstone Design II (2)

*Prereq.:* ME 3633, ME 3752, ME 4243, ME 4433, ME 4183. 6 hrs. lab. Principles from heat transfer, thermodynamics, design, fluids and materials courses utilized to complete the project set forth in the preliminary design outline submitted in ME 4243.

## ME 4213 Welding Engineering I (3)

*Prereq.: ME 2733; ME 3633; grade of "C" or better in ENGL 1001.* Fundamentals of welding and joining; introduction to nondestructive evaluation; basics of welding technology and welded structures; GMAW and GTAW; shielded metal arc welding processes.

### ME 4223 Welding Engineering II (3)

Prereq.: ME 2733; ME 3633; ME 4213 or consent of instructor; grade of "C" or better in ENGL 1001. Fundamentals and intermediate level welding and joining; intermediate nondestructive evaluation emphasizing phased-array-ultrasonics; design calculations of welded structures; advanced welding processes.

# ME 4243 Mechanical Engineering Capstone Design I (3)

Prereq.: ECON 2030, ME 2212, ME 4244, senior standing in the College of Engineering, 2.0 LSU and Mechanical Engineering GPA, and credit or registration in ME 3633, ME 3752, ME 4183 and ME 4433 or equivalent. 2 hrs. lecture; 2 hrs. lab. Design project will be selected and approved (to be completed in ME 4202); project feasibility study and outline of the design project will be completed; design methodology, optimization, product reliability and liability, economics, use of ASME codes and professional ethics.

#### ME 4244 Machine Design II: Strength Considerations and Component Design (4)

*Prereq.: CE 3400 and credit or registration in ME 4133.* Design, three-dimensional stress analysis; deflection and stiffness; static and dynamic loading; failure theories and fatigue; fasteners; welded joints; mechanical springs; bearing; gears; shafts; clutches; brakes and couplings; belts and pulleys.

## ME 4273 Stress Analysis in Mechanical Engineering (3)

*Prereq.: CE 3400.* Finite element solutions of 1D and 2D elasticity problems with emphasis on computing accurate stresses using commercial finite element software for a variety of physical configurations and load states.

## ME 4293 Introduction to Microsystem Fabrication and Design (3)

*Prereq.*: ME 3752. Microfabrication techniques; design issues for fabrication systems containing microelectric and micromechanical elements.

## ME 4433 Heat Transfer (3)

*Prereq.:* ME 2334 or ME 3333, ME 3834; a grade of "C" or better in MATH 2070 or MATH 2090 or equivalent. Principles of heat transfer by conduction, radiation and convection.

### ME 4443 Introduction to Combustion (3)

*Prereq.: ME 4433.* Basic principles of combustion and their application in solving engineering problems.

#### **ME 4563 Mathematical Methods in Engineering (3)** See MATH 4038.

## ME 4573 Interactive Computer Graphics (3)

*Prereq.: experience in mathematics and computer programming.* Analytical treatment of graphics using the digital computer; graphical display and input devices; computer graphics systems and standards; two- and threedimensional transformations; geometric modeling; interactive techniques; basic data structures; realism in 3-D graphics; future trends.

## ME 4583 Applied Computer Graphics (3)

*Also offered as CSC 4357. Prereq.:* CSC 4356 or *ME 4573 or equivalent.* Application of computer graphics techniques to solve specific problems in engineering design, scientific visualization, and digital media.

### ME 4611 Thermal System Laboratory (1)

*Prereq.:* ME 2334 or equivalent and credit or registration in ME 4433 and ME 3603. 3 hrs. lab. Oral presentations required. Thermal system analysis and independent experimentation.

## ME 4621 Thermal Science Laboratory (1)

*Prereq.: ME 3603, ME 3834, ME 4433, or equivalent.* Laboratory demonstrations and experimentation in fluid mechanics, thermodynamics and heat transfer concepts.

## ME 4633 Internal Combustion Engines (3)

*Prereq.: ME 2334 or ME 3333 or equivalent.* Classification of internal combustion engines, gas turbines, cycles with different components, spark-ignition gasoline engines, detonation, carburetion, compression-ignition engines, combustion and diesel knock, fuel atomization and atomizers, combustion chambers, two- and four-stroke cycle engines and supercharging.

## ME 4643 Thermal Environmental Engineering (3)

*Prereq.: ME 2334 and credit or registration in ME 4433 or equivalent.* Design of thermal environment for humans, animals, processes, and inanimate objects; the means of control.

## ME 4663 Renewable and Nuclear Power Plant Engineering (3)

*Prereq.: ME 2334 and ME 4433 or equivalent.* Power plants for industrial and central-station use; emphasis on cycles, design, capabilities and economics of the plant as a whole; components used in various types of plants.

# ME 4673 Introduction to Modern Control Theory (3)

*Prereq.: ME 4183 or equivalent.* State space modeling, controllability, observability and stability, pole placement, optimal control laws via minimum principle and dynamic programming.

## ME 4683 Sensors and Actuators (3)

*Prereq.: EE 3950, ME 3143.* Basic knowledge and operational principles of various transduction (sensing and actuating) methods, especially electro mechanical sensors and actuators; actual designing, building and testing transducers.

## ME 4723 Advanced Materials Analysis (3)

*Prereq.: ME 2733, ME 3701 or equivalent. 1 hr. lecture; 6 hrs. lab.* Concepts and operation of modern analytical instruments using photon or electron beams and X-rays; macroscopic and microscopic examination of materials coupled with separate and combined testing of mechanical, tribological and corrosion properties.

## ME 4733 Deformation and Fracture of Engineering Materials (3)

*Prereq.: CE 3400 and ME 2733 or equivalent.* Effect of temperature, strain rate, corrosion, and microstructure on stress-strain behavior and fracture of engineering materials, including metals, ceramics and plastics.

## ME 4743 Kinetics in Materials Processes (3)

*Prereq.: ME 2334, ME 2733 or equivalent.* Applications of the principles of diffusion, phase transformation and thermodynamics to describe the kinetics of microstructural evolution in engineering materials.

## ME 4763 Fundamentals of Corrosion Science and Engineering (3)

*Prereq.: ME 2733 or equivalent and any first course in thermodynamics.* Corrosion principles; polarization, passivation, inhibition and other phenomena; principal methods used in corrosion prevention.

## ME 4783 Composite Materials: Manufacturing, Properties and Design (3)

*Prereq.: ME 2733 and CE 3400 or equivalent.* Constituent materials, micro- and macromechanics, mechanical behavior, fracture, manufacturing and design of components made of composite materials, including polymer, ceramic and metal matrix materials.

## ME 4813 Interdisciplinary Fluid Dynamics: Physical Concepts (3)

Also offered as HNRS 4813. Prereq.: Diff. Equations and Introductory Physics. An introduction to fluid dynamics from a multi-disciplinary perspective, emphasizing theoretical, mathematical and physical concepts of fluid flows and their application to a range of physical scales and disciplines.

### ME 4823 Interdisciplinary Fluid Dynamics: Computational Methods (3)

Also offered as HNRS 4823. Prereq.: Diff. Equations, Linear Algebra and Computer Programming. Numerical solution strategies for differential equations relevant to fluid flow and transport processes. Finite-difference, finitevolume and finite-element methods. Parallel computations.

## ME 4843 Gas Dynamics (3)

*Prereq.: ME 2334; a grade of "C" or better in MATH 2070 or MATH 2090 or equivalent.* Derivation and review of basic equations of compressible fluid flow; reduction of the general problem to 1-D flow; 1-D flow in nozzles with and without friction; 1-D flow with heat addition; normal shock wave, Prandtl-Myer turn and oblique shock waves.

## ME 4853 Turbomachinery (3)

*Prereq.: ME 2334, ME 3834 and ME 4433.* Preliminary design of axial- and radial-flow pumps, compressors and turbines; determination of optimum flow angles and dimensions, blade design, blade selection and performance prediction.

## ME 4863 Fluid Power Systems (3)

*Prereq.: ME 3834 or equivalent and CE 2450.* Theory of hydraulic power components and systems. Analysis and design of fluid power components and systems.

## ME 4903 Special Projects for Undergraduates (3)

Prereq.: 3.00 cumulative GPA or consent of instructor, ME 3143, ME 3834, and ME 4133. May be taken for a max. 9 hours of credit, but no more than three hours can count as a Tech A elective. Comprehensive design problems and research investigations.

## ME 4913 Aerodynamics (3)

*Prereq.: ME 2334, ME 3834, or graduate standing.* Fundamental principles and concepts of aerodynamics; inviscid incompressible and compressible flow; and viscous flow phenomena.

### ME 4923 Jet and Rocket Propulsion (3)

*Prereq.: ME 2334 and ME 3834.* Propulsive systems; aerothermochemistry; air-breathing propulsion; rocket propulsion.

## ME 4933 Advanced Topics in Mechanical Engineering (3)

May be taken for a max. of 6 hrs. of credit when topics vary. Two sections may be taken concurrently.

# ME 4943 Special Problems in Aerospace Engineering (3)

Prereq.: senior standing in mechanical engineering or related discipline. May be taken for a max. of 12 sem. hrs. of credit when topics vary. Aerodynamic problems of special interest in the analysis and design of water, land, air and space transportation systems.

### ME 4953 Nuclear Reactor Engineering Design (3)

*Prereq.: PHYS 2110 and PHYS 2113 or equivalent and credit or registration in ME 4433.* 

Characteristics of radioactive materials, neutron interactions, the fission process; static criticality, timedependent behavior of cores and design of nuclear power reactors.

## ME 4963 Nuclear Reactor Systems Engineering (3)

*Prereq.: ME 4953 or equivalent.* Engineering aspects of reactor systems; nuclear fuel cycles, isotope separation, mechanical and thermal design, selection of materials and environmental impact of nuclear facilities.

#### ME 4973 Space Systems (3)

*Prereq.: ME 3133 and credit or registration in ME 4143.* Design of spacecraft for orbital operations, space exploration, and human spaceflight; includes mission requirements; astrodynamics; atmospheric entry; top-level design of power; propulsion; altitude determination and control; communications; thermal management; life support; reliability; cost and scheduling; political, commercial, and national security aspects of spaceflight.

#### ME 7153 Advanced Vibrations (3)

*Prereq.: ME 4143 or equivalent.* Modeling and response of continuous vibratory systems; inverse problems in vibration; active vibration control; dynamic absorption; wave propagation and reflection; numerical methods for continuous systems.

### ME 7163 Advanced Dynamics (3)

*Prereq.: a first course in engineering dynamics, and a course in differential equations.* Rotating reference frames, rigid body kinetics in three dimensions, central force motion, orbital mechanics, variable mass problems, and Lagrange's equations.

## ME 7273 Advanced Stress Analysis in Mechanical Engineering (3)

*Prereq.: ME 4273.* The nature and limitations of the underlying theory in stress analysis. Computation of verified stresses for properly posed problems using finite element analysis.

### ME 7313 Advanced Fluid Dynamics I (3)

*Prereq.: credit or registration in MATH 4038 or equivalent.* Cartesian tensors; kinematics of fluid motion; mass and momentum conservation equations for Newtonian fluids; vorticity dynamics; irrotational incompressible flow; dynamic similarity and scaling analysis; laminar flow; compressible flow.

#### ME 7323 Advanced Fluid Dynamics II (3)

*Prereq.: ME 7313 or equivalent.* General conservation laws and Navier-Stokes equations; incompressible laminar boundary theory; regular and singular perturbation methods; gravity waves; stability of laminar flows; transition and turbulent boundary layers; dynamics and statistical description of turbulence; compressible boundary layer flow.

## ME 7333 Hydrodynamic Stability (3)

*Prereq.: ME 7323 or equivalent.* Linear stability analysis; weakly nonlinear stability analysis; chaos.

## ME 7343 Computation of Fluid Flow and Heat Transfer (3)

*Prereq.: ME 3834, ME 4433 or equivalent.* Finitedifference methods for solving equations of fluid motions and energy; computer program use to solve complex problems involving fluid flow; heat transfer and chemical reaction; mathematical models for turbulence; radiation and combustion; their computing implications; application of prediction procedures for practical situations.

#### ME 7433 Advanced Heat Transfer I (3)

Steady and transient heat conduction; fundamentals of radiation heat transfer.

### ME 7443 Advanced Heat Transfer II (3)

Prereq.: ME 7323 or equivalent. Convection heat transfer.

## ME 7533 Numerical Methods in Applied Mechanics (3)

Computer methods used to solve engineering problems; advanced numerical methods.

# ME 7633 Advanced Engineering System Dynamics (3)

*Prereq.: ME 4183 or equivalent.* Dynamic system modeling; bond graphs; state-determined systems; simulation; controllability/observability.

#### ME 7643 Advanced System Modeling (3)

*Prereq.: ME 7633 or equivalent.* Mathematical models and dynamic behaviors of engineering systems in multi-energy domains; bond-graph modeling methods, simulations using contemporary software.

## ME 7673 Advanced Mechanical Systems Control (3)

*Prereq.: ME 4183 or equivalent.* Design and analysis of nonlinear control systems; adaptive and robust control techniques; state estimation; stability theory; control and stability of distributed parameter systems.

#### ME 7723 Materials Characterization Using Electron Beam Methods (3)

*Prereq.*: ME 2733. 2 *hrs. lecture*; 3 *hrs. lab.* Theory and principles of electron optics, electron microscopy, and spectroscopy; preparation, observation, and characterization of materials by electron beams.

## ME 7743 Defects, Diffusion and Transformations in Solids (3)

*Prereq.: ME* 2733 or equivalent. Defects and atomistic mechanisms, dislocation theory, quantitative description of diffusion processes and phase transformations in materials.

## ME 7753 Thermodynamics of Solid Materials (3)

*Prereq.: ME 2733 and any first level course in thermodynamics.* Review of first and second laws of thermodynamics; material property relationships; chemical equilibrium in reactions; solid solutions and phase diagram enunciations; reaction kinetics and nonequilibrium thermodynamics.

## ME 7901 Seminar (1)

Pass-fail grading. All graduate students are expected to attend this course every semester; only 1 sem. hr. of credit in this course allowed toward degree.

## ME 7903 Independent Study in Mechanical Engineering (3)

*May be taken for a max. of 6 hrs. of credit.* Directed independent study for graduate students.

#### ME 7933 Mechanical Engineering Problems (3)

## ME 7953 Advanced Topics in Mechanical Engineering (3)

May be taken for a max. of 6 hrs. of credit when topics vary, with consent of department. Mechanical engineering treatment of various areas of interest.

#### ME 8000 Thesis Research (1-12 per sem.)

"S"/"U"grading.

**ME 9000** Dissertation Research (1-12 per sem.) "S"/"U"grading.

## **Medical Physics**

## MEDP 2051 Radiation Science with Applications (3)

This is a General Education course. *Prereq.: MATH 1021* or *MATH 1023*. Matter and energy; structure of the atom and nucleus; radioactivity; types of radiation; radiation interactions and detection; dose and biological effects; radiation safety; background radiation; applications of nuclear science in industry and medicine.

### MEDP 4111 Introduction to Medical Imaging (3)

*Prereq.: PHYS 2002 or equivalent; MATH 1550 or equivalent.* Physics and engineering aspects of medical imaging systems: X-ray imaging, computed tomography, magnetic resonance imaging, ultrasound and nuclear medicine; clinical applications and limitations of the modalities.

## MEDP 4331 Radiation Protection and Exposure Evaluation (3)

*Prereq.: PHYS 1202 or both PHYS 2112 and PHYS 2113.* Control and evaluation of radiation exposure, including external and internal dosimetry, techniques of dose reduction and consequences of radiation exposure.

## MEDP 4351 Radiation Detection and Instrumentation (2)

*Prereq.: PHYS 3098 or equivalent; consent of instructor.* Introduction to the physics of detection, instrumentation and data analysis used to measure ionizing radiation (gamma rays, x-rays, neutrons and charged particles) using scintillation crystal, solid state, film and gas detectors. Provides understanding of underlying principles of detection systems used in radiation therapy, radiological imaging and health physics.

### MEDP 4352 Radiation Detection Laboratory (1)

*Prereq.: credit or registration in MEDP 4351. 3 hrs. lab.* laboratory exercises covering fundamental principles of radiation detection systems and data analysis techniques used for radiation measurements in radiation therapy, radiological imaging and medical health physics.

## MEDP 4991 Special Problems in Medical Physics and Health Physics (1-4)

Prereq.: thorough knowledge of mathematics, science and engineering related to the topic or proposed problem and consent of instructor. May be taken for a max. of 12 sem. hrs. of credit when topics vary. Theoretical or experimental problems involving the application of medical physics and health physics technology.

### MEDP 4995 Seminar (1)

*Course may be repeated on audit basis only.* Elective seminar especially for undergraduate minors in nuclear science and undergraduate majors in physics and astronomy with a concentration in medical physics.

## MEDP 7098 Radiation Research Technology and Methods (3)

*Prereq.: MEDP 4351. 2 hrs. lecture; 3 hrs. lab.* Practical experience and skills for measurement and calculation of radiation dose; dose measurements with ion chamber and diode; introduction to treatment planning systems; beam modeling based on Monte Carlo and deterministic algorithms; data analysis methods in support of research and clinical radiation service; statistical analysis of data; introduction to data privacy and HIPAA compliance.

## MEDP 7111 Advanced Medical Imaging Physics (3)

*Prereq.: MEDP 4111, MATH 1552.* Topics related to advanced research and clinical imaging physics; theory of image formation; quantitative analysis of imaging systems by Fourier methods and QC/acceptance testing; Radon transform and theory of image reconstruction; tracer methodology for quantitative imaging.

## MEDP 7121 Radiobiology (3)

*Prereq.: MEDP 4331 or consent of instructor.* Topics in radiobiology including: introductory cell biology and cellular organization; effects of ionizing radiation on cellular, molecular, and organ systems; radiosensitivity, repair, and mediation of radiobiological effects; acute vs. late effects; radiation risks; topics specific to radiation medicine; effects of alternative radiation and non-radiation therapies.

# MEDP 7210 Clinical Principles of Radiation Therapy (3)

Prereq.: MEDP 7121, MEDP 7331. Open only to students currently enrolled in the Master of Science in Medical Physics and Health Physics program or the PhD in Physics (Medical Physics concentration) program. Introduction by practicing radiation oncologists to the evolution of radiation therapy, general oncology considerations, tumor radiobiology, non-intentional effects of radiation and altered fractionation. Discussion of tumor biopsy and behavior, normal tissue effects and treatment planning and delivery techniques for specific organ systems.

## MEDP 7260 Clinical Medical Physics Rotation (4)

Prereq.: credit in MEDP 4111 and MEDP 7331. Open only for students currently enrolled in the Master of Science in Medical Physics and Health Physics program or the PhD in Physics (Medical Physics concentration) program. 12 hrs. clinic. Under the direction of clinical staff, introduction to clinical duties of the medical physicist in radiation therapy and radiology. Radiation therapy physics topics include treatment planning, delivery techniques and dosimetry for brachytherapy and external beam therapy. Radiological imaging physics topics include operation and quality assurance for CT, MRI, and PET imaging systems and radiation safety.

# MEDP 7270 Advanced Radiation Therapy Physics (3)

*Prereq.: MEDP 7331.* Basic principles of clinical indications, radiation delivery, treatment planning, dose calculations, dose measurements and quality assurance for advanced treatment techniques used in radiation therapy (external beam electron, proton and photon therapy and internal brachytherapy).

## MEDP 7280 Advanced Clinical Radiation Therapy Physics Rotation (2)

Prereq.: MEDP 7260, MEDP 7270. Open only for students currently enrolled in the Master of Science in Medical Physics and Health Physics program. Under the supervision of clinical medical physics staff, introduction to the planning, delivery and dosimetric aspects of advanced radiation therapy treatments such as brachytherapy, stereotactic radiosurgery, total skin electron therapy, intensity modulated radiotherapy and image guided radiotherapy and to the advanced physical practices of accelerator quality assurance and radiation therapy shielding design.

### MEDP 7331 Radiation Therapy Physics (3)

*Prereq.: MEDP 4331.* Fundamental physical principles, operation of delivery equipment, treatment planning principles, methods of dose calculations, determination of irradiation time from dose prescription, dose measurements and quality assurance for external beam therapy (photons and electrons) and internal brachytherapy.

## MEDP 7530 Radiation Shielding and Accelerators (3)

*Prereq.: MEDP 4331, MEDP 7537.* Practical concepts of structural shielding design, calculation and verification, including relevant professional guidelines and regulations; applicable to facilities for radiotherapy, diagnostic imaging, and nuclear medicine. Fundamental concepts of medical accelerators and radiation-producing equipment.

## MEDP 7537 Radiation Interactions and Transport (3)

Also offered as PHYS 7537. Prereq.: PHYS 2203 or equivalent, CSC 2262 or equivalent experience in computer programming. Photon, neutron and electron interactions and energy deposition, the Boltzmann equation, elementary analytical solutions; deterministic computational methods including spherical harmonics and discrete ordinates techniques; continuous slowing down and Fokker-Planck approximations.

# MEDP 7538 Monte Carlo Simulation of Radiation Transport (3)

Also offered as PHYS 7538. Prereq.: MEDP 7537 or consent of instructor, CSC 2262 or equivalent experience in computer programming. Radiation transport simulation by the Monte Carlo method; phase-space tracking; dose response estimators, biasing methods; integral form of the Boltzmann equation; condensed-history method for charged particles; neutron, photon and electron transport calculations for shielding and medical physics applications.

## MEDP 7991 Advanced Projects in Medical Physics and Health Physics (1-3)

Prereq.: MEDP 4111 or MEDP 7331 and consent of instructor. May be taken for a max. of 6 sem. hrs. credit. Medical physics or health physics projects that study particular aspects of radiation therapy, medical imaging or medical health physics.

# MEDP 7992 Advanced Topics in Medical Physics and Health Physics (1-3)

*Prereq.: consent of instructor. May be taken for a max. of 6 sem. hrs. of credit when topics vary.* Advanced treatment of a specific area of medical physics or health physics technology of current interest.

## MEDP 7995 Seminar (1)

Required every semester for degree candidates in medical physics and health physics. Only 1 sem. hr. of credit may be counted toward degree.

## MEDP 7999 Report Investigation (1-6)

*Prereq.: MEDP 4111 or MEDP 7331 and consent of instructor. May be taken for a max. of 12 sem. hrs credit.* Detailed investigation of a research problem or a technical design project.

**MEDP 8000 Thesis Research (1-12 per sem.)** "S"/"U" grading.

## Management

#### MGT 3200 Principles of Management (3)

[LCCN: CMGM 3103, 3313, Principles of Management (Upper Level), Human Resource Management (Upper Level)] Management functions, including planning, organizing, staffing/human resource management, leading/interpersonal influence and controlling in both domestic and international spheres.

## MGT 3203 Independent Study: Advanced Management Topics (1-6)

*Prereq.: consent of instructor. May be taken for a max. of 6 sem. hrs. of credit.* Independent research under direction of a faculty member.

#### MGT 3211 Business and Society (3)

*Prereq.: senior standing.* Open only to College of Business students; open to others with permission of department. Social roles of organizations whose primary function is the accumulation of profits; emphasis on current issues; historical development of business-society relationships.

#### MGT 3280 Management Internship (3)

Prereq.: junior or senior standing and permission of instructor. Pass-fail grading. May be taken for a max. of 6 sem. hrs. of credit. Students, supervised by a management faculty member and an approved business executive, will follow a predetermined schedule of activities while working for a business firm. Hands-on experience in the fields of management, human resource management, organizational behavior, small business management, entrepreneurship, and administrative practices.

## MGT 3320 Strategic Human Resource Management (3)

*Prereq.: MGT 3200.* The planning and implementation of HR policy at the strategic level of an organization, including recruitment, selection, development, maintenance and reward of employees; relationships with environment and employee associations.

## MGT 3513 Negotiation and Dispute Resolution (3)

Prereq.: reserved for College of Business students; open to others with permission of department. In-depth examination of various theories and processes of negotiation and alternative forms of dispute resolution relevant to the broad spectrum of conflict problems faced by employees and managers. Designed to improve students' knowledge and skills in the areas of workplace conflict management and negotiation.

### MGT 3830 Strategic Management (3)

An honors course, MGT 3831, is also available. Prereq.: MGT 3200 and MKT 3401 or MKT 3402, and credit or registration in FIN 3716. Open only to E. J. Ourso College of Business students. Credit will not be given for both this course and MGT 3831. May be taken only during the final 30 hours of course work. Analyzing strategic situations and decision making based on these analyses to ensure the success of for-profit and non-profit organizations.

### MGT 3831 HONORS: Strategically Managing Organizations (3)

Same as MGT 3830, with special honors emphasis for qualified students. Credit will not be given for this course and MGT 3830.

## MGT 3850 Contemporary Topics in Management (1-3)

Open only to College of Business students or with permission of department. May be repeated for a max. of 6 sem. hrs. credit when topics vary. In-depth examination of contemporary issues in management theory and practice; emphasis on current topics of special interest or concern in management.

## MGT 4322 Employee Selection and Placement (3)

*Prereq.: ISDS 2000 or equivalent and MGT 3320.* Staffing requirements, recruitment strategies, development and validation of selection procedures, classification and placement of employees; problems associated with personjob matching; socialization of new employees.

#### MGT 4323 Compensation Administration (3)

*Prereq.: MGT 3320.* Quantitative and nonquantitative methods of job evaluation; wage level, wage structure, incentive plans; issues of employee compensation.

### MGT 4430 Managing Across Cultures (3)

Reserved for College of Business students; open to others with permission of department. Introduction to the basic principles of cross-cultural management. Students will examine both the theory and practice of international management concepts across three modules: (1) foundations of global business, (2) the role of culture, and (3) international organizational behavior and human resource management.

#### MGT 4440 International Strategic Management (3)

Reserved for College of Business students; open to others with permission of department. This course examines how businesses approach managing organizations in the global context. Students will examine the mechanisms of globalizing for businesses, including the global integration of resources and capabilities and the level of national responsiveness to adapt to foreign market demands.

## MGT 4450 Global Corporate Social Responsibility (3)

Reserved for College of Business students; open to others with permission of department. This course introduces students to the concept of social responsibilities of organizations, the ways they can "do well" by "doing good." Students will examine some of the world's most pressing issues, such as environmental concerns, economic inequality, or social problems, and how organizations charter new business strategise in which social responsibility plays an important role.

## MGT 4500 Introduction to Labor Relations (3)

*Prereq.: open only to College of Business students; open to others with permission of department.* Management's response to organized labor in the workplace; emphasis on U.S. unionization development; government regulation of labor-management relations; union structure, political activity, collective bargaining and contract administration.

## MGT 4523 Legal Issues in Human Resource Management (3)

*Prereq.: MGT 3320.* An examination of the most significant laws and court rulings influencing companies' employment practices; topics include: anti-discrimination statutes, affirmative action, commonly committed workplace torts, occupational safety and health laws, workers' compensation and wrongful termination.

#### MGT 4620 Organizational Behavior (3)

Prereq.: MGT 3200. Reserved for College of Business students; open to others with permission of department. Behavioral sciences applied to understanding human dynamics in organizations; focus on individual, interpersonal, group and intergroup behavior; impact of human behavior on organizational effectiveness.

## MGT 4820 Understanding Management Mistakes and Failures (3)

*Reserved for College of Business students; open to others with permission of department.* In-depth examination of managerial decision making, mistakes, and organizational failures. Emphasis on case studies to demonstrate course concepts.

#### MGT 4830 Strategic Leadership (3)

*Prereq.*: MGT 3200. Reserved for College of Business students; open to others with permission of department. This course examines basic principles of strategic leadership. Students will examine both the theory and practice of strategic thinking across three modules: (1) foundations of strategic leadership, (2) the role of choice and behavior, and (3) applying strategic business models to improve leadership and management skills in the self and others.

#### MGT 4840 Managing Change in Organizations (3)

*Prereq.: Open only to College of Business students or with permission of department.* This course examines the dynamics of change in organizations. Students are exposed to issues confronting managers during implementation, e.g. expectation setting, resource allocations, politics, and timing.

## MGT 7203 Development of Management Thought (3)

Origin and growth of managerial concepts and topics and associated research methodologies.

## MGT 7212 Seminar in Contemporary Management Topics (3)

Prereq.: consent of instructor. May be taken for a max. of 12 hrs. of credit when topics vary.

## MGT 7301 Seminar in Human Resources (3)

Role of human resource managers; their relationships with employees, the external environment and top management.

#### MGT 7600 Organizational Behavior (3)

Behavior of people within organizations; the environment within which organizations function; components of the behavioral unit; processes, interactions and outputs of organizational behavior.

## MGT 7620 Strategic Management of Health Care Organizations (3)

Prereq.: Cross-listed with PADM 7620.

#### MGT 7800 Current Issues in Strategic Management (3)

Contemporary issues in strategic management theory and practice; emphasis on field projects that provide topmanagement problem-solving experience.

#### MGT 7811 Research Issues in Strategic Management (3)

*Prereq.: MGT 7800 or equivalent.* Strategic planning; issues including environmental scanning, goal formulation, strategic implementation, control and evaluation in successful organizations.

## MGT 9000 Dissertation Research (3)

"S"/"U" grading.

#### MGT 9201 Research Methods in Management (3)

Theory building; measurement reliability and validity; significance testing and statistical power; sampling strategies and missing data; multi-level and cross-level issues; research ethics.

## MGT 9202 Pre-dissertation Research (1-9)

Pass-fail grading. May be repeated for credit.

### MGT 9204 Proseminar in Management (1)

Pass-fail grading. May be taken for a max. of 3 sem. hrs. when topics vary. Required of all inresident PhD students. Contemporary research and critical issues in management.

# MGT 9800 Seminar in Advanced Business Problems (3)

May be taken for a max. of 6 hrs. of credit when topics vary. Directed work in advanced topics.

## **Military Science**

Nonimmigrant aliens require approval from their governments prior to enrollment in these courses.

#### MILS 1010 Rifle and Pistol Marksmanship (1)

Non-immigrant aliens require approval from their governments prior to enrollment. 1 hr. lecture; 1 hr. lab. Restricted to freshmen and sophomores or permission of instructor. Rifle and pistol safety; breathing techniques; zeroing; physical and mental conditioning; sighting and aiming; standard firing positions; practical application on indoor firing range.

# MILS 1011 Leadership and Personal Development (1)

Non-immigrant aliens require approval from their governments prior to enrollment. 1 hr. lecture; 1.5 hrs. lab. Introduction to the personal challenges and competencies critical for effective leadership. Focus on developing basic knowledge and comprehension of Army leadership dimensions while gaining an understanding of the ROTC program, its purpose in the Army and its advantages for students.

## MILS 1012 Intro to Tactical Leadership (1)

Prereq.: MILS 1011 or permission of instructor. Nonimmigrant aliens require approval from their governments prior to enrollment. 1 hr. lecture; 1.5 hrs. lab. Overview of leadership fundamentals, including setting direction, problem-solving, listening, presenting briefs, providing feedback and effective writing skills.

## MILS 1015 Army Physical Fitness Training (1)

May be taken for a max. of 8 sem. hrs. of credit. Open to all LSU students. Non-immigrant aliens require approval from their governments prior to enrollment.

*3 hrs. lab.* Development of strength, stamina, agility, coordination and flexibility through a combined program of group and individual exercise.

## MILS 2161 Innovative Team Leadership (2)

Prereq.: MILS 1011 and MILS 1012 or permission of instructor; Non-immigrant aliens require approval from their governments prior to enrollment. 2 hrs. lecture; 1.5 hrs. lab. Explores the dimensions of creative and innovative tactical leadership strategies and styles by studying historical case studies and engaging in interactive student exercises.

### MILS 2162 Foundations of Tactical Leadership (2)

Prereq.: MILS 2161 or permission of instructor; Nonimmigrant aliens require approval from their governments prior to enrollment. 2 hrs. lecture; 1.5 hrs. lab. Examines the challenges of leading tactical teams in the complex contemporary operating environment (COE). Continued study of the theoretical basis of the Army leadership framework explores the dynamics of adaptive leadership in the context of military operations.

### MILS 3011 Adaptive Tactical Leadership (4)

Prereq.: MILS 2161 and MILS 2162 or equivalent. Nonimmigrant aliens require approval from their governments prior to enrollment. 3 hrs. lecture; 3 hrs. lab. Study, practice and evaluation of adaptive team leadership skills as presented with the demands of the ROTC Leader Development and Assessment Course (LDAC). Challenging scenarios related to small unit tactical operations are used to develop self awareness and critical thinking skills.

# MILS 3012 Leadership in Changing Environments (4)

Prereq.: MILS 3011. Non-immigrant aliens require approval from their governments prior to enrollment. 3 hrs. lecture; 3 hrs. lab. Integrates the principles and practices of effective leadership, military operations and personal development, in order to adequately prepare for the summer Leadership Development Advanced Course (LDAC).

## MILS 3013 ROTC Advanced Camp (3)

Offered in Su Prereq.: MILS 3011 and MILS 3012. Nonimmigrant aliens require approval from their governments prior to enrollment. To receive academic credit, student must enroll in summer session prior to departure for Advanced Camp. Five week course conducted at an Army post with instructors and cadets representing ROTC programs from the United States, Puerto Rico and Guam. Intense leadership application and training in military skills; oral and written orders, light infantry tactics, weapons systems and confidence building events.

### MILS 4011 Developing Adaptive Leaders (4)

Prereq.: MILS 3012. Not for graduate credit. Senior standing required. Non-immigrant aliens require approval from their governments prior to enrollment.
3 hrs. lecture; 3 hrs. lab. Development of proficiency in planning, executing and assessing complex operations, functioning as a member of a staff and providing performance feedback to subordinates. Lessons on military justice and personnel processes prepare students to make the transition to becoming an Army officer.

### MILS 4012 Leadership in a Complex World (4)

Prereq.: MILS 4011. Not for graduate credit. Senior standing required. Non-immigrant aliens require approval from their governments prior to enrollment. 3 hrs. lecture; 3 hrs. lab. Explores the dynamics of leading in the complex situations of current military operations in the Contemporary Operating Environment (COE). Case studies, scenarios and exercises are also used to prepare students to face the complex ethical and practical demand of leading as a commissioned officer in the U.S. Army.

### MILS 4995 Special Topics in Military History (3)

May be taken for a max. of 6 sem. hrs. of credit when topics vary. Non-immigrant aliens require approval from their governments prior to enrollment.

## Marketing

#### MKT 3401 Principles of Marketing (3)

[LCCN: CMKT 3003, Principles of Marketing (Upper Level)] An honors course, MKT 3402, is also available. Credit will not be given for both this course and MKT 3402. Lecture-discussion, case analysis, marketingsimulation game; the field of marketing; marketing environment, functions, and institutional structure at a macro level; marketing strategy and policies at a micro level; problems of cost and productivity; view points of society, consumer and marketing manager.

#### MKT 3402 HONORS: Principles of Marketing (3)

Same as MKT 3401, with special emphasis for honors students and marketing majors. Credit will not be given for this course and MKT 3401.

#### MKT 3410 Sports Marketing (3)

Application of marketing concepts to sports and leisure activities; emphasis on planning and strategy development.

#### MKT 3411 Consumer Analysis and Behavior (3)

*Prereq.: MKT 3401. Open only to marketing majors; open to others with permission of the department.* Dynamics of consumer markets; their significance to marketing executives; identification and measurement of market segments; analysis of their behavioral patterns as a basis for marketing strategy.

#### MKT 3413 Marketing Research (3)

Prereq.: MKT 3401 or equivalent and ISDS 2000. Open only to College of Business students; open to others with permission of department. Formulation of marketing policies; theories, concepts, and methodology involved in applying research to marketing problems.

## MKT 3421 Marketing Communication: Promotion (3)

*Prereq.: MKT 3401.* Nature and contributions of personal selling and advertising to the firm's problems of demand stimulation; concepts related to integration and organization of promotional effort to facilitate communication programs for products and/or services.

#### MKT 3427 Professional Selling (3)

[LCCN: CMKT 3203, Personal/Professional Selling (Upper Level)] *Prereq.: MKT 3401. Open only to marketing majors; open to others with permission of department.* Communication theory and sales principles needed for successful sales career; buyer behavior and sales tactics; sales strategies; communication in buyer-seller relationships.

#### MKT 3431 Retailing Management (3)

[LCCN: CMKT 3103, Retail Management] *Prereq.: MKT 3411.* Store organization, operation and management; retail method of inventory; problems connected with retail buying and selling.

### MKT 3500 Marketing Tools Fundamentals (3)

*Prereq.: credit or registration in MKT 3401 and permission of department.* Coverage of current and emerging computer-based and other tools used by marketing practitioners.

#### MKT 4423 Sales Management (3)

*Prereq.: MKT 3401. Open only to marketing majors; open to others with permission of department.* Principles of sales planning and control; organizing sales departments, developing territories, motivating sales persons and controlling sales operations.

#### MKT 4440 Digital Marketing (3)

*Prereq.: MKT 3401 and permission of department.* The proliferation of internet, social media, and mobile channels are revolutionizing marketing techniques around the world. This course provides students technological expertise to keep pace by in-depth discussion and projects performing digital marketing with real companies. Students will acquire cutting-edge knowledge, skills, and experience to conduct marketing campaigns in each of these cutting-edge mediums.

#### MKT 4443 International Marketing (3)

*Prereq.: MKT 3401.* Global marketing environment and analytical processes; global marketing as all-encompassing (import-export, joint ventures, foreign subsidiaries, licensing, management contracts); marketing systems in various countries; strategies for international and multinational operations.

## MKT 4445 Internship in Marketing (1-6)

Prereq.: senior standing or permission of department. Pass-fail grading. May be repeated for a max. of 6 sem. hrs. credit. Primarily for seniors in marketing. On-the-job experience in approved marketing positions.

### MKT 4451 Marketing Management (3)

Prereq.: MKT 3413 and senior standing. Open only to College of Business students; open to others with permission of department. Analytical principles used in development of strategies for solving marketing problems; policy areas of product, price, channels and promotion integrated in development of the firm's total marketing effort.

## MKT 4477 Independent Study: Advanced Marketing Problems (1-6)

Prereq.: permission of department. Pass-fail grading. May be repeated for a max. of 6 sem. hrs. credit when topics vary.

For undergraduate students in the E. J. Ourso College of Business with a GPA of 3.00 or above. Independent research under direction of a faculty member.

## MKT 4478 Professional Sales Practicum (3)

Credit will not be given for this course and MKT 4479. Prereq.: MKT 3401, MKT 3427, and permission of department. Open only to marketing majors; open to others with permission of department. Pass/fail grading. Designed for students who want to gain real-world sales experience by preparing students for professional sales competitions.

## MKT 4479 Professional Sales Internship (3)

Credit will not be given for this course and MKT 4478. Prereq.: MKT 3401, MKT 3427, and permission of department. Open only to marketing majors; open to others with permission of department. Pass/fail grading. The internship requires departmental approval of the sales content of the internship. Designed for students who want to gain real-world sales experience through a sales internship.

### MKT 4490 Services Marketing (3)

*Prereq.: MKT 3401.* Developing, pricing, distributing and promoting the service; control of quality of customer encounters through service automation and/or employee selection and training; place of marketing in service organization structure; strategic implications of structure of service industries.

### MKT 4500 Entrepreneurial Marketing and Sales (3)

Prereq.: ENTR 3111 and MKT 3401 and Entrepreneurship Minor or Entrepreneurship Concentration or permission of instructor. This course will look at the role of marketing in entrepreneurial ventures and the role of entrepreneurship in marketing efforts of all firms. Attention will be devoted to understanding the common mistakes entrepreneurs make when it comes to marketing and how to sell an idea/product in an entrepreneurship environment.

## MKT 7110 Marketing Tools Foundations and Applications (3)

*Prereq.: credit or registration in BADM 7100 or equivalent.* Coverage of current and emerging tools used by marketing practitioners, including customer tracking systems, market segmentation tools, market share analysis, competitive intelligence, applications to real and/or simulated market situations.

## MKT 7120 Customer Decision-Making and Brand Marketing Strategy (3)

*Prereq.: BADM 7100 or equivalent.* Treatment of key elements of consumer decision-making with emphasis on formulation of brand marketing strategy based on consumer behavior models, constructs and information.

# MKT 7130 Marketing Research and Brand Analysis (3)

Applications of marketing research methods such as qualitative research techniques, marketing surveys, marketing experiments and brand analysis techniques.

## MKT 7150 Global Marketing Issues and Strategies (1.5)

*Prereq.: BADM 7100 or equivalent.* Examination of marketing strategies and tactics available to organizations Seeking to compete with global markets.

#### MKT 7300 Brand Marketing Strategy (3)

*Prereq.: MKT 7120 and MKT 7130.* Coverage of brand marketing strategy formulation, including market and competitor analysis, plus resource allocation; emphasis on issues involved in marketing strategy formulation and implementation.

## MKT 7450 Topics in Advanced Marketing Management (3)

Prereq.: BADM 7100 or permission of instructor. May be taken for a max. of 6 hrs. of credit when topics vary. Survey of marketing management areas such as distribution channels, pricing and product management.

## MKT 7471 Marketing Strategy (3)

Design, implementation and evaluation; corporate marketing models; demand forecasting; marketing programming; product, price, promotion and distribution policies; information systems; marketing audit; application of economic, quantitative, and behavioral tools as strategic aids to marketing management; model-building approach used to demonstrate tool applications in product, price, promotion and distribution strategies.

## MKT 7477 Seminar in Advanced Marketing Problems (3)

Prereq.: permission of department. May be taken for a max. of 9 hrs. of credit when topics vary.

## MKT 7486 Applications of Marketing Theory (3)

Marketing theory development and testing; theory operationalization and refinement.

### MKT 7488 Marketing Models (3)

*Prereq.: BADM 7100 or consent of instructor.* Synthesis of theory, content area and methodology in marketing through the study of modeling; modeling phenomena, functional forms and analytical techniques of path analysis, simultaneous equation systems, and structural equation modeling.

## MKT 7716 Advanced Marketing Research Techniques (3)

*Prereq.: BADM 7100.* Advanced designs and techniques applied to marketing research; theory and assumptions of analytical methods; marketing applications; use of computer programs; marketing strategy; interpretations of empirical results.

## MKT 7717 Advanced Seminar in Consumer Behavior (3)

*Prereq.: MKT 4451 or BADM 7100.* Open only to doctoral students. Theoretical, conceptual and methodological issues for selected topics in this area.

## MKT 7720 Seminar in Marketing Theory and Experimental Methods (3)

*Prereq.: BADM 7100 or equivalent.* Nature and importance of theory in marketing, interplay of theory and research methods; validity and implications in marketing and consumer research; experimental and quasi-experimental design; pluralism in marketing and consumer research.

## MKT 8900 Pre-dissertation Research (1-9)

May be repeated for credit.

**MKT 9000 Dissertation Research (1-12 per sem.)** *"S"/"U" grading.* 

## **Music: Ensemble Courses**

These courses are open to all students, including freshmen and sophomores.

## MUS 4220 Piano Ensemble (1)

May be repeated for a max. of 2 sem. hrs. for degree credit.

## MUS 4222 Woodwind Chamber Music (1)

MUS 4223 Brass Chamber Music (1)

## MUS 4224 String (or Piano and Strings) Chamber Music (1)

#### MUS 4225 Collegium Musicum (0-1)

An early music ensemble, focusing on music of the seventeenth and eighteenth centuries. Emphasis on issues in performance practice, ornamentation, and notation.

#### MUS 4226 Percussion Ensemble (1)

MUS 4227 Marimba Ensemble (1)

#### MUS 4229 Harp Ensemble (1)

MUS 4230 Gospel Choir (1)

#### MUS 4232 LSU Tiger Glee Club (1)

Satisfies the major ensemble requirement.

### MUS 4233 Women's Chorus (1)

Satisfies the major ensemble requirement.

## MUS 4234 University Chorus (0-1)

Satisfies the major ensemble requirement.

#### **MUS 4235 Chamber Choir (1)** *Satisfies the major ensemble requirement.*

**MUS 4236 A Cappella Choir (1)** *Satisfies the major ensemble requirement.* 

### MUS 4240 Opera Chorus (1)

**MUS 4250 Tiger Marching Band (1)** Satisfies the major ensemble requirement.

### MUS 4251 Wind Ensemble (0-1)

Satisfies the major ensemble requirement.

#### MUS 4252 Symphonic Band (0-1)

Satisfies the major ensemble requirement.

## MUS 4253 Jazz Band (1)

Satisfies the major ensemble requirement.

#### MUS 4254 Symphonic Winds (0-1)

Satisfies the major ensemble requirement.

MUS 4255 Chamber Jazz (1)

MUS 4260 Philharmonia (1)

#### MUS 4261 Symphony Orchestra (0-1)

Satisfies the major ensemble requirement.

#### MUS 4270 Experimental Music & Digital Media Ensemble (1)

*May be taken for a max. of 4 credit hours.* An experimental music ensemble that merges performance with technology; performing new compositions, recent works for laptop or mobile orchestra, and improvisatory music.

## **Music: General Courses**

#### MUS 1001 Voice Class (2)

*Open to nonmusic majors with consent of instructor.* Group instruction in voice production.

## MUS 1002 Voice Class (2)

*Open to nonmusic majors with consent of instructor.* Group instruction in voice production.

### MUS 1010 In Concert (1)

*May be taken for a max. of 3 hrs. of credit. 2 hrs. lab.* An elective course open to all university students; designed to develop proper audience etiquette and to expose students to a wide variety of music performances.

## MUS 1018 Diction for Singers I (1)

Required of all BM and BME majors with a voice concentration. 2 hr. lab. Entry level course covering pronunciation of Italian and French for singing, utilizing the International Phonetic Alphabet System (IPA).

### MUS 1019 Diction for Singers II (1)

Required of all BM and BME majors with a voice concentration. *2 hr. lab.* Entry level course covering pronunciation of German and English for singing, utilizing the International Phonetic Alphabet System (IPA).

#### MUS 1020 Performance Craft for Singers (1)

May be taken for a max. of 2 hrs. of credit. Preparatory for MUS 4240. Required of all voice performance majors. Workshop exploring performing artistry for the singer through individual coaching and class exercises such as movement, dance and improvisation; stage terms, stage deportment and stage etiquette; performance anxiety.

### MUS 1108 Piano Class (2)

*Open only to nonmusic majors.* Instruction for the beginner and lower intermediate student.

### MUS 1109 Piano Class (2)

*Prereq.*: MUS 1108 or consent of instructor. Open only to nonmusic majors. Instruction for the beginner and lower intermediate student.

#### MUS 1130 Group Piano I (1 each)

*Open only to music majors. Required of all non-keyboard music majors who do not meet proficiency requirements.* Functional use of the piano.

### MUS 1131 Group Piano II (1 each)

*Prereq.*: Grade of "C" or better in MUS 1130 or successful placement. *Open only to music majors. Required of all non-keyboard music majors who do not meet proficiency requirements.* Functional use of the piano.

#### MUS 1132 Group Piano III (1 each)

*Prereq.*: Grade of "C" or better in MUS 1131 or successful placement. *Open only to music majors. Required of all non-keyboard music majors who do not meet proficiency requirements.* Functional use of the piano.

### MUS 1133 Group Piano IV (1 each)

*Prereq.*: Grade of "C" or better in MUS 1132 or successful placement. *Open only to music majors. Required of all non-keyboard music majors who do not meet proficiency requirements.* Functional use of the piano.

#### MUS 1500 Defining the Artist (1)

*Majors only*. Focuses on the role of the artist in society, including musicians' roles in arts advocacy, public funding, and arts education, and the myriad of career opportunities available within the arts.

### MUS 1600 American Popular Music (3)

This is a General Education Course. *Open to non-music majors only*. Surveys the history of American popular music from artistic, cultural, political, and economic perspectives.

#### MUS 1700 Recital Hour (0)

*Pass-fail grading. May be repeated.* Weekly student recital and music seminar.

#### MUS 1701 Foundations of Music Study (3)

A concise survey of the elements of aural and written music theory, musicianship and related skills. Intended to prepare majors and minors in the School of Music for Theory I and subsequent courses.

#### MUS 1705 The Musician in Society (3)

*Majors or Minors only, or permission of department.* A survey of diverse roles occupied by musicians and their collaborators in societies from the past to the present, the remote to the familiar, and the global to the local. The course fosters a humanistic engagement with the musical lives of others while encouraging students to consider the contemporary opportunities afforded by a degree in the

field of music. As an introduction to academic coursework at LSU, the course also cultivates practical skills necessary for success at the university level, from regular attendance and note taking to critical thinking and clear writing.

### MUS 1740 Introduction to Music History I (2)

*Prereq.: grade of "C" or better in MUS 1740 is prerequisite for MUS 1741.* Fundamental elements of music from historical and cultural perspectives; introduction to historical trends, musical genres, major composers and score reading; cultivation of studying and writing skills.

#### MUS 1741 Introduction to Music History II (2)

*Prereq.: grade of "C" or better in MUS 1740 is prerequisite for MUS 1741*. Fundamental elements of music from historical and cultural perspectives; introduction to historical trends, musical genres, major composers and score reading; cultivation of studying and writing skills.

#### MUS 1751 Music Appreciation (3)

[LCCN: CMUS 1013, Music Appreciation] This is a General Education course. *Primarily for nonmusic majors. Credit will not be given for this course and MUS 1755.* The art of music, with emphasis on listening skills; a nontechnical approach to understanding vocabulary and materials of music; correlation of musical literature with other disciplines in the humanities.

#### MUS 1755 HONORS: Music Appreciation (3)

This is a General Education course. *Primarily for qualified students not majoring in music. Credit will not be given for this course and MUS 1751.* Study of the musical art emphasizing the development of critical listening skills and a non-technical, but thorough musical vocabulary; additional emphasis placed on the historical correlation of both vernacular and art music to corresponding developments in the other fine arts disciplines.

### MUS 1799 Rudiments of Music (3)

This is a General Education course. *Not open to music majors.* The grammar of music, including basic notation and elementary construction leading to a study of tonal harmony.

#### MUS 1800 Technology in Music Education (2)

*Music majors only.* Introduction to the uses of technology in school music programs; includes discussion of the role and application of technology in K-12 school music settings.

#### MUS 2000 History of Jazz (3)

[LCCN: CMUS 1023, Jazz Appreciation] This is a General Education course. *Open to nonmusic majors*. Survey of the evolution of jazz and jazz styles.

## MUS 2018 Diction for Singers III (1)

*Required of all voice performance majors. 2 hr. lab.* Advanced study of phonetics and pronunciation for German songs; utilizing the International Phonetic Alphabet; pronunciation concepts supported by recitation and performance of representative song repertoire.

## MUS 2019 Diction for Singers IV (1)

*Required of all voice performance majors. 2 hr. lab.* Advanced study of phonetics and pronunciation for French songs; utilizing the International Phonetic Alphabet; pronunciation concepts supported by recitation and performance of representative song repertoire.

### MUS 2053 Survey of Music History I (3)

*Prereq.: grade of "C" or better in MUS 1705.* Music of Western civilization to ca. 1750.

#### MUS 2054 Survey of Music History II (3)

*Prereq.: grade of "C" or better in MUS 2053.* Music of Western civilization from ca. 1750 to the present.

## MUS 2300 Instrumental and Vocal Techniques (1-2)

May be repeated for credit. For prospective secondary school teachers of music. Woodwind and brass techniques for instrumental majors, and instrumental and choral techniques for vocal majors may be taken for 2 hrs. of credit; percussion, strings and voice for instrumental major may be taken for 1 hr. of credit only.

2 hrs. lecture; 1 hr. lab. Development of fundamental skills in wind, string and percussion instruments and voice.

### MUS 2400 Jazz Fundamentals for Teachers (1)

*For music education majors only*. Basic jazz techniques and concepts necessary for jazz ensemble and jazz combo instruction in secondary school settings.

### MUS 2620 Music Theory I (3)

Prereq.: Passage of placement exam or grade of C or better in MUS 1701. Credit will not be given for this course and MUS 2630. For music majors and minors only. 3 hrs. lecture. Basic tonal harmony and voice leading, phrase structure, analysis of music form and genre; sight-singing and keyboard harmony skills, melodic and harmonic dictation.

## MUS 2621 Aural Skills I (1)

*Prereq.: For music majors and minors only. 2 hrs. lab.* Beginning Musicianship training. Sight singing, melodic, harmonic, and rhythmic dictation, conducting rudiments, keyboard harmony, and ensemble exercises.

### MUS 2622 Music Theory II (3)

Prereq.: A grade of C or better in MUS 2620 or MUS 2630, or permission of department. For music majors or minors only. Credit will not be given for this course and MUS 2632. Basic tonal harmony and voice leading, phrase structure, analysis of musical form and genre, sight-singing and keyboard harmony skills, melodic and harmonic dictation.

## MUS 2623 Aural Skills II (1)

Prereq.: Successful completion of MUS 2621 or placement exam. For music majors and minors only. 2 hrs. lab. Musicianship training. Sight singing, melodic, harmonic, and rhythmic dictation, conducting rudiments, keyboard harmony, and ensemble exercises.

## MUS 2630 HONORS: Music Theory I (3)

Same as MUS 2620, with special honors emphasis for qualified students. Prereq.: MUS 1701. For music majors and minors only. Credit will not be given for this course and MUS 2620.

#### MUS 2632 HONORS: Music Theory II (3)

Same as MUS 2622, with special honors emphasis for qualified students. Prereq.: Passing grade of C or better in MUS 2620, MUS 2630, or permission of department. Credit will not be given for this course and MUS 2622.

### MUS 2700 Intro to Music Technology (3)

Introduction to contemporary technologies for music composition, performance, and publishing.

#### MUS 2731 Music Theory I (4)

Prereq.: Passage of placement exam or grade of "C" or better in MUS 1701. Credit will not be given for this course and MUS 2733. 3 hrs. lecture; 2 hrs. lab. Basic tonal harmony and voice leading, phrase structure, analysis of musical form and genre; sight-singing and keyboard harmony skills, melodic and harmonic dictation.

#### MUS 2732 Music Theory II (4)

*Prereq.: Grade of "C" or better in MUS 2731. Credit will not be given for this course and MUS 2734. 3 hrs. lecture; 2 hrs. lab.* Basic tonal harmony and voice leading, phrase structure, analysis of musical form and genre; sight-singing and keyboard harmony skills, melodic and harmonic dictation.

### MUS 2733 HONORS: Music Theory I (4)

Same as MUS 2731, with special honors emphasis for qualified students. Credit will not be given for this course and MUS 2731.

### MUS 2734 HONORS: Music Theory II (4)

Same as MUS 2732, with special honors emphasis for qualified students. Credit will not be given for this course and MUS 2732.

#### MUS 2745 Introduction to Computer Music (3)

Introduction to techniques and technologies in computer music; principles of digital audio, sound design, music synthesis, digital audio workstations, and sound art composition with an emphasis on *musique concrète*.

#### MUS 2751 Jazz Improvisation I (2)

*Prereq.: MUS 2732 or equivalent.* Introductory performance course in jazz improvisation; emphasis on its theoretical basis.

## MUS 3018 Vocal Pedagogy (2)

*Prereq.: 12 sem. hrs. of applied voice study.* Principles and processes of voice production; psychology of teaching and studying singing; beginning comparative pedagogy; vocal repertoire for the beginning singer.

### MUS 3334 Group Piano V (1)

2 hrs. lab. Functional keyboard skills for rehearsing and accompanying vocal ensembles and soloists; includes sight-reading, score reading, accompanying, playing vocal warm-ups and coaching piano/vocal ensembles.

#### MUS 3335 Group Piano VI (1)

2 hrs. lab. Functional keyboard skills for rehearsing and accompanying vocal ensembles and soloists; includes sight-reading, score reading, accompanying, playing vocal warm-ups and coaching piano/vocal ensembles.

#### MUS 3500 Preparing the Artist (1)

*Prereq.: MUS 1500 or permission of department. Majors only.* Focuses on skills required to create careers as entrepreneurs such as self-promotion, career development, media, networking, and business and marketing.

#### MUS 3620 Music Theory III (3)

Prereq.: A grade of C or better in MUS 2622 or MUS 2632. For music majors or minors only. Credit will not be given for this course and MUS 3630. Advanced tonal harmony; continued form and genre study; post-tonal compositional techniques; basic scoring and score reading; continued mastery of relevant musicianship skills.

#### MUS 3621 Aural Skills III (1)

Prereq.: Successful completion of MUS 2623 or placement exam. For music majors or minors only. 2 hrs. lab. Intermediate musicianship training. Sight singing, melodic, harmonic, and rhythmic dictation, conducting rudiments, keyboard harmony, and ensemble exercises.

#### MUS 3622 Music Theory IV (3)

Prereq.: A grade of C or better in MUS 3620 or MUS 3630. For music majors or minors only. Credit will not be given for this course and MUS 3632. Advanced tonal harmony; continued form and genre study; post-tonal compositional techniques; basic scoring and score reading; continued mastery of relevant musicianship skills.

#### MUS 3623 Aural Skills IV (1)

Prereq.: Successful completion of MUS 3621 or placement exam. For music majors or minors only. 2 hrs. lab. Intermediate musicianship training. Sight singing, melodic, harmonic, and rhythmic dictation, conducting rudiments, keyboard harmony, and ensemble exercises.

## MUS 3630 HONORS: Music Theory III (3)

Same as MUS 3620, with special honors emphasis for qualified students. Credit will not be given for this course and MUS 3620.

## MUS 3632 HONORS: Music Theory IV (3)

Same as MUS 3622, with a special honors emphasis for qualified students. Credit will not be given for this course and MUS 3622.

#### MUS 3703 Theory Survey (3)

Admission by placement examination. Written and aural aspects of theory.

#### MUS 3710 Overview of Western Music History (3)

Survey of Western classical music from the Middle Ages to the present day.

#### MUS 3731 Music Theory III (4)

Prereq.: grade of "C" or better in MUS 2732 is prerequisite for MUS 3731. Credit will not be given for this course and MUS 3733. Advanced tonal harmony; continued form and genre study; post-tonal compositional techniques; basic scoring and score reading; continued mastery of relevant musicianship skills.

#### MUS 3732 Music Theory IV (4)

*Prereq.: grade of "C" or better in MUS 3731 is prerequisite for MUS 3732. Credit will not be given for this course and MUS 3734.* Advanced tonal harmony; continued form and genre study; post-tonal compositional techniques; basic scoring and score reading; continued mastery of relevant musicianship skills.

### MUS 3733 HONORS: Music Theory III (4)

Same as MUS 3731, with special honors emphasis for qualified students. Credit will not be given for this course and MUS 3731.

## MUS 3734 HONORS: Music Theory IV (4)

Same as MUS 3732, with special honors emphasis for qualified students. Credit will not be given for this course and MUS 3732.

## MUS 3749 Choral Literature and Conducting I (1-2)

*I hr. lecture, 2 hrs. lab.* Elements of conducting choral groups.

## MUS 3750 Choral Literature and Conducting II (1-2)

Prereq.: MUS 3749 or equivalent. Continuation of MUS 3749. 1 hr. lecture, 2 hrs. lab.

## MUS 3757 Organ Literature, History and Design (3)

Evolution and development of the organ and its literature; development of keyboard (organ) forms, techniques and idiomatic styles; organ mechanism and action; tonal structure; design problems.

# MUS 3758 Organ Literature, History and Design (3)

*Prereq.: MUS 3757 is prerequisite for 3758.* Evolution and development of the organ and its literature; development of keyboard (organ) forms, techniques and idiomatic styles; organ mechanism and action; tonal structure; design problems.

## MUS 3771 Instrumental Conducting I (2)

Elements of conducting instrumental groups.

### MUS 3772 Instrumental Conducting II (2)

Prereq.: MUS 3771 or equivalent. Continuation of MUS 3771. 1 hr. lecture; 2 hrs. lab.

### MUS 3780 Introduction to Stage Techniques (2)

Participants will develop the technical skills needed to successfully prepare, rehearse and perform a stage production. Exercises incorporate stage blocking, stage combat, dance, dialogues, recitatives, ensembles and movement to music.

## MUS 3997 Directed Studies in Music (1-3)

Prereq.: consent of departmental faculty concerned and dean of the School of Music. May be taken for a max. of 6 sem. hrs. of credit. MUS 3997 cannot be used in lieu of a required course in any School of Music curriculum.

## MUS 4005 Musical Theatre Singing: Technique and Repertoire (2)

*Prereq.: permission of instructor. May be taken for a max. of 8 hrs. of credit. 1 hr. lecture; 2 hrs. lab.* Musical theatre singing style and repertoire; emphasis on vocal and stage performance of literature appropriate to the singer.

## MUS 4020 Introduction to the Alexander Technique (1)

*2 hrs. lab.* Employing the basic principles of the Alexander Technique; students will begin the process of psycho-physical re-education through experimental movement exercises and hands-on work with the instructor.

### MUS 4101 Piano Accompanying (1)

*Course may be repeated for a max. of 4 sem. hrs. of credit. Open to pianists by permission of instructor.* Individual projects in principles and practical applications of accompanying.

## MUS 4120 Reed Making for Double Reed Majors (1)

May be taken for a max. of 8 sem. hrs. but with a max. of 2 hrs. credit towards any degree. Recommended for all oboe and bassoon majors. 1 hr. lab. Principles of double-reed making with development of individual skill and application of reed making and finishing.

### MUS 4124 String Literature (1)

*Prereq.: 12 sem. hrs. of applied string instrument study or consent of instructor. May be repeated once.* Independent study in solo and ensemble literature for stringed instruments.

## MUS 4126 Woodwind Literature (1)

Prereq.: 12 sem. hrs. of applied wind instrument study or consent of the instructor. May be repeated once. Independent study in solo and ensemble literature for woodwind instruments.

### MUS 4128 Brass Literature and Pedagogy (2)

Prereq.: 12 sem. hrs. of applied brass instrument study or consent of instructor. May be repeated once. Independent study in solo and ensemble literature and methods and materials for instruction in brass instruments.

# MUS 4130 Percussion Literature and Pedagogy (2)

*Prereq.: 12 sem. hrs. of applied percussion instrument study or consent of instructor. May be repeated once.* Independent study in solo and ensemble literature and methods and materials for instruction in percussion instruments.

### MUS 4173 Woodwind Instrument Pedagogy (1)

*Prereq.: 12 sem. hrs. of applied wind instrument study or consent of instructor.* Independent studies in methods and materials for instruction in woodwind instruments.

### MUS 4215 Music Technology I (3)

For majors only or by consent of instructor. 3 hrs. lab. Fundamentals of computer applications for educational uses in music; historical and social contexts of computer development; fundamentals in computer systems; configuring hardware; survey of commercial music software; and use of software applications.

## MUS 4241 Opera Theater (2)

May be taken for a max. of 8 hrs. of credit toward the master's degree. Admission by audition. May not be taken concurrently with MUS 9007. Students must schedule this course both fall and spring semesters, unless permission to schedule only one semester is granted by the instructor. 4 hrs. lab plus individual coaching. Techniques of the musical theater; preparation and performance of operatic scenes and complete operas.

### MUS 4242 Acting for Opera (1-2)

*Prereq.: permission of instructor. May be taken for a max. of 4 sem. hrs. of credit.* Techniques of acting for opera; training in audition skills, stage movement, state makeup and vocal and dramatic techniques for operatic roles.

### MUS 4351 Song Literature (2)

Study of the traditions and repertoire of German *Lied* from Beethoven through the Romantic period as well as the repertoire of French *mélodie* from Berlioz to Poulenc.

### MUS 4352 Song Literature II (2)

The art song repertoire from the French máelodie to contemporary English and American song.

# MUS 4400 Orchestral Repertoire for Instrumentalists (1)

*Prereq.: permission of instructor. May be taken for a max. of 3 sem. hrs. of credit.* Standard orchestral excerpt repertoire for instrumentalists, including: preparation; score study and analysis; specialized practice techniques; and audition strategies. Emphasis on the performance of orchestral excerpts.

## MUS 4501 Senior Project (1)

*Majors only.* Capstone project of music academic experience. Capstone may include a lecture-recital, community project, or other creative project, as advised by the student's major professor.

### MUS 4502 Music in Religious Services (3)

The social, cultural, and theological roles that music has played and continues to play within a variety of religious traditions. Survey of the practical ways in which music integrated into Christian liturgical traditions and services, including studies in hymnology and psalmody.

## MUS 4701 Organ Practicum (2)

*Prereq.: consent of instructor.* Techniques of service playing; techniques and materials of organ pedagogy.

## MUS 4702 Organ Practicum (2)

*Prereq.: consent of instructor. MUS 4701 is prerequisite for 4702.* Techniques of service playing; techniques and materials of organ pedagogy.

### MUS 4710 Advanced Aural Skills (3)

*Prereq.: a grade of "C" or better in MUS 3731.* Concentrated work in sight singing with a special emphasis upon skills needed for professional activity in performance, conducting and composition.

### MUS 4712 Advanced Form and Analysis (3)

*Prereq.: a grade of "C" or better in MUS 3732.* Complex forms and harmonic techniques of the 19th century to the present.

## MUS 4718 Styles and Practices of Beethoven and the Romantics (3)

*Prereq.: a grade of "C" or better in MUS 3732.* Tonality, harmony and form in music of the Romantic period; analysis of selected literature and creative writing in the Romantic style.

### MUS 4720 Post-Tonal Styles and Practices (3)

*Prereq.: a grade of "C" or better in MUS 3732.* Study of principal currents of musical composition in the modern era; analysis of selected works and creative application of techniques, procedures and formal schemes studied.

### MUS 4725 Survey of Contrapuntal Techniques (3)

*Prereq.: Grade of "C" or better in MUS 2732 or equivalent.* Writing and analysis of contrapuntal music in the modal, tonal, and post-tonal idioms.

### MUS 4730 Elementary Orchestration (3)

*Prereq.: grade of "C" or better in MUS 2732.* Traditional scoring practices.

### MUS 4735 Jazz Arranging (2)

*Prereq.: MUS 3732 or consent of instructor.* Jazz arranging styles and techniques, from Dixieland to modern jazz.

### MUS 4744 Mobile Music (3)

Creating music applications for mobile platforms, mobile application instrument design, mobile interaction design, experimental music composition and performance.

## MUS 4745 Computer Music (3)

May be taken for a max. of 6 hrs. of credit when topics vary. Digital sound design, sound synthesis and signal processing; electroacoustic music composition using computers and computer music techniques.

## MUS 4746 Seminar in Computer Music and Digital Media (3)

*Prereq.: MUS 4745 or consent of instructor. May be taken for a max. of 6 hrs. of credit when topics vary.* Focused study of various topics in computer music and digital media such as computer music programming, sound diffusion techniques, interactive computer music and digital media systems, intermedia applications, analysis of computer music.

## MUS 4748 Digital Musical Instruments (3)

Digital musical instruments, physical modeling, sound design, acoustics, haptic interaction design, 21<sup>st</sup> century lutherie, and computer music composition.

### MUS 4749 Seminar in Music History (3)

Prereq.: grade of "C" or better in MUS 2054 or equivalent or permission of instructor. May be taken for a max. of 6 sem. hrs. credit when topics vary.

## MUS 4757 Piano Literature I (3)

A survey of the keyboard repertoire from the late renaissance through Haydn and Mozart.

### MUS 4758 Piano Literature II (3)

A survey of piano literature from Beethoven to the present.

### MUS 4759 History of Jazz Styles (3)

Survey and analysis of the American Jazz idiom from the perspective of historical jazz periods and specific artists.

## MUS 4761 The Care and Repair of Band and Orchestral Instruments (1)

Prereq.: MUS 2300 or equivalent. For students with experience in instrumental music and a practical knowledge of the problems in instrumental upkeep. 2 hrs. lab.

### MUS 4763 Piano Methods and Materials (3)

Materials and techniques for the piano teacher.

## MUS 4764 Piano Methods and Materials (3)

Materials and techniques for the piano teacher.

## MUS 4766 Marching Band Techniques (3)

Charting techniques for marching band; emphasis on contemporary drill design, practical projects in charting drill.

### MUS 4769 Supervised Studio Instruction (2)

Program tailored to needs of each student by the major applied teacher who supervised the student's studio teaching program.

### MUS 4770 Supervised Studio Instruction (2)

Program tailored to needs of each student by the major applied teacher who supervised the student's studio teaching program.

### MUS 4772 Harp Technology and Maintenance (2)

*Required of all harp majors.* Individual projects and study of harp history and development, design and regulation.

#### MUS 4773 Orchestral Repertoire for Harp (1)

May be taken for a max. of 8 hrs. of credit. Required of all harp majors. Independent study of major orchestral excerpts; includes audition preparation.

### MUS 4774 Harp Pedagogy (2)

*Required of all harp majors.* Independent studies in materials and methods for the harp teacher.

## MUS 4797 Senior Recital (1)

### MUS 4798 Senior Composition Recital (1)

Pass-fail grading. Concert of solo and chamber works.

### MUS 4799 Coaching in Applied Music (2)

May be repeated for credit. Open to music students with the recommendation of the appropriate applied music faculty. Max. amount of credit applicable toward a degree is 6 sem. hrs.

## MUS 4901 Basic Techniques of Audio Recording (3)

Basic properties of audio and various forms of sound energy; analysis of complete audio systems for recording and sound reinforcement and individual system components; aspects of stereo concert recording; emphasis on microphone placement techniques; professional music production techniques, including editing and tape duplication.

### MUS 7011 Keyboard Skills for Pianists (1)

Techniques of accompanying, including sight-reading, score reading, transposition and harmonization.

## MUS 7018 Advanced German Diction for Singers (1)

*1 hr. lecture; 1 hr. lab.* The rules of pronunciation utilizing the International Phonetic Alphabet; coaching in the Lied and operatic literature including spoken dialogue.

## MUS 7019 Advanced French Diction for Singers (1)

*1 hr. lecture; 1 hr. lab.* The rules of pronunciation utilizing the International Phonetic Alphabet; coaching in the French art song and operatic literature.

#### MUS 7020 Advanced Italian Diction for Singers (1)

*1 hr. lecture; 1 hr. lab.* The rules of pronunciation utilizing the International Phonetic Alphabet; coaching in operatic and song literature; some outside research expected.

### MUS 7124 Seminar in String Literature (2)

Methods, solos and chamber music for strings.

## MUS 7126 Seminar in Woodwind Literature I (2)

Methods, solos and ensemble literature for woodwinds.

## MUS 7127 Seminar in Woodwind Literature II (2)

Methods, solos and ensemble literature for woodwinds.

#### MUS 7128 Seminar in Brass Literature (3)

Methods, solos and ensemble literature for brass instruments.

#### MUS 7130 Seminar in Percussion Literature (2)

Methods, solos, and ensemble literature for percussion intstruments.

#### MUS 7160 Survey of Jazz Styles (3)

In-depth investigation of the American Jazz idiom from the perspective of historical jazz periods and specific artists.

#### MUS 7170 Advanced Vocal Pedagogy (2)

Fundamentals of anatomy, physiology and acoustics of voice production; emphasis on vocal registers, breath management and articulation; pedagogical philosophies used to train the classical singing voice in the Western tradition of art song and opera.

## MUS 7172 Stringed Instrument Pedagogy (2)

Methods and materials for instruction in string instruments.

#### MUS 7173 Woodwind Instrument Pedagogy (2)

May be taken for a max. of 2 hrs. of credit for the MM and 2 hrs. of credit for the DMA or PhD. Independent studies in the methods and materials for instruction in woodwind instruments.

#### MUS 7174 Brass Instrument Pedagogy (2)

Methods and materials for instruction in brass instruments.

#### MUS 7175 Percussion Instrument Pedagogy (2)

Methods and materials for instruction in percussion instruments.

#### MUS 7176 Jazz Pedagogy (3)

Pedagogical issues in jazz idiom including effective jazz ensemble directing, selection of appropriate repertoire, improvisational performance practices, effective jazz practice habits and concepts designed to foster creativity.

#### MUS 7221 Solo Literature for the Voice (3)

*Prereq.: MUS 4351 and MUS 4352 or equivalent.* Solo vocal literature in German and French; emphasis on styles of performance.

#### MUS 7222 Solo Literature for the Voice (3)

*Prereq.: MUS 4351 and MUS 4352 or equivalent.* Solo vocal literature by English, American, Italian, Scandinavian, Eastern European, Russian, Spanish and Latin American composers; emphasis on styles of performance.

#### MUS 7270 Historical Perspectives of Voice (3)

Development of vocal technique and pedagogical thought from the late 17th century to the present; definition of the bel canto style; historical schools of vocal training; examination of historical writings by Tosi, Mancini, Garcia, Marchesi, Vennard and other individuals of primary historical eminence.

### **MUS 7271 Principles of Voice Production (3)**

*Prereq.: COMD 4250 and COMD 4153.* Anatomy and physiology of the respiratory, phonatory and articulatory systems used in the production of the human voice; theories of phonation; acoustics of the vocal tract; laryngeal biomechanics; control of fundamental frequency and loudness; study of life-span changes of the voice and care of the human voice.

## MUS 7272 Comparative Vocal Pedagogy (2)

*Prereq.: MUS 7170 or equivalent.* Techniques for teaching collegiate level applied voice; studio structure and management.

### MUS 7500 Advanced Teaching Practicum (1-2)

Prereq.: MUS 4769 and MUS 4770 or equivalent. May be repeated for credit. A total of 3 sem. hrs. is applicable to the MM degree. Supervised teaching internship of instrumental and/or vocal instruction in private and/or group settings.

#### MUS 7501 Piano Pedagogy and Literature I (2)

*Prereq.: MUS 4763 and MUS 4764 or equivalent.* Piano methods and literature at the elementary and intermediate levels.

### MUS 7502 Piano Pedagogy and Literature II (2)

*Prereq.: MUS 4763 and MUS 4764; or equivalent.* Piano methods and literature at the intermediate and advanced levels.

### MUS 7521 Instrumental Accompanying (2)

*May be repeated for a max. of 4 sem. hrs. of credit.* Repertoire and techniques of accompanying for instrumental genres.

### MUS 7522 Vocal Accompanying (2)

May be repeated for a max. of 4 sem. hrs. of credit. Repertoire and techniques of accompanying for vocal genres.

## MUS 7570 College Teaching in Music (3)

History of music in higher education; current issues, problems and techniques of college teaching in music; development of effective college-level teaching skills.

### MUS 7600 Sources of Music Study & Research (3)

*Also offered as LIS 7810.* Focuses on finding, evaluating, using and citing materials in print, online and recorded sources for music research.

### MUS 7700 Survey of Analytical Techniques (3)

*Prereq.: MUS 3703 or passing of the Music Theory Diagnostic Examination.* Survey of analytical tools and concepts for common practice and post-tonal practice.

#### MUS 7701 Pedagogy of Music Theory (3)

*Prereq.: MUS 3703 or successful passing of the Music Theory Diagnostic Examination.* Techniques for teaching undergraduate music theory and aural skills courses; comparisons of principal philosophies and textbooks.

#### **MUS 7703 Contemporary Musical Practices (3)**

6 sem. hrs. applicable to the MM degree when topics vary; 6 additional sem. hrs. applicable to the DMA degree when topics vary. Compositional trends in contemporary music; discussion of books on composition; analysis of major compositions.

#### MUS 7704 Studies in Schenkerian Analysis (3)

Prereq.: MUS 3703 or successful passing of the Music Theory Diagnostic Examination. May be taken for a max. of 6 sem. hrs. of credit: 3 sem. hrs. applicable to MM degree; 3 additional hrs. applicable to PhD or DMA degrees. Ideas and practices of tonal theorist Heinrich Schenker; their effect on musical thought and performance in this century.

### MUS 7710 Theory and Analysis of Tonal Music (3)

*Prereq.: MUS 3703 or successful passing of the Music Theory Diagnostic Examination.* Readings and practice in various approaches to the analysis of music of the tonal era (ca. 1600-1900).

#### MUS 7711 Seminar in Post-Tonal Musical Analysis (3)

Prereq.: MUS 3703 or successful passing of the Music Theory Diagnostic Examination. May be taken for a max. of 6 hrs. of credit when topics vary. Analytical study of specific composers, works or styles.

### MUS 7721 Survey of Choral Literature I (3)

A survey of choral literature beginning with Gregorian Chant and ending with the Baroque period of music, with emphasis on preparation for performance.

## MUS 7722 Survey of Choral Literature II (3)

A survey of choral literature beginning with the Classical period and ending with contemporary music for chorus, with emphasis on preparation for performance.

### MUS 7723 Survey of Wind Literature I (2)

A survey of chamber wind literature (6 to 20 performers) from the late Renaissance to the present.

#### MUS 7724 Survey of Wind Literature II (2)

A survey of orchestra, large wind ensemble and large wind band literature (more than 20 performers) from the French Revolution to the present.

#### MUS 7725 Survey of Symphonic Literature I (2)

A survey of orchestral works beginning with the Baroque period of music and ending with the early Romantic; emphasis on preparation for performance.

#### MUS 7726 Survey of Symphonic Literature II (2)

A survey of orchestral works beginning with the Romantic period and ending with 20th century music for orchestra, with emphasis on preparation for performance.

#### MUS 7741 History of Music Theory I (3)

Prereq.: MUS 3703 and MUS 3710 or successful passing of the Music Theory and Music History Diagnostic Examinations. History of technical writings on music, ca. 500-1600; acoustics, notes and scales, intervals, tuning systems, modes, counterpoint, mensuration, musical poetics, speculative theory.

#### MUS 7742 History of Music Theory II (3)

Prereq.: MUS 3703 and MUS 3710 or successful passing of the Music Theory and Music History Diagnostic Examinations. Music theory from ca. 1600 to 1900; development of species counter-point and figured bass theory; the rise of harmonic theory and rhythmic/phrase analysis; 19th-century expansions of harmonic theory and formal analysis.

#### MUS 7745 Advanced Computer Music (3)

*Prereq.: MUS 4745 or consent of instructor.* Advanced techniques in digital sound synthesis and composition; analysis/resynthesis techniques, granular synthesis, physical modeling, interactive computer music performance and algorithmic composition using computers; survey of representative music from the genre.

## MUS 7746 Graduate Seminar in Experimental Music and Digital Media (3)

*Prereq.: MUS 7745 or consent of instructor. May be taken for a max. of 6 hrs. of credit when topics vary.* Focused study of various topics in experimental music and digital media such as development of new computer music systems, interactive computer music, multimedia composition, alternative human-computer interfaces for music, experimental music performance, sound installations and advanced analysis of computer music.

### MUS 7747 History of Electroacoustic Music (3)

The history of electroacoustic music; developments in technology, aesthetics and style since ca. 1900 to present; survey and analysis of representative music from the genre.

## MUS 7749 Special Studies in Piano Literature (3)

Each course may be taken for a max. of 6 hrs. of credit when topics vary. Total amount of credit applicable to MM degree limited by student's advisory committee. Works of certain composers for the keyboard, such as selected concertos.

## MUS 7750 Special Studies in Piano Literature (3)

Each course may be taken for a max. of 6 hrs. of credit when topics vary. Total amount of credit applicable to MM degree limited by student's advisory committee. Works of certain composers for the keyboard, such as selected concertos.

#### MUS 7751 Ancient and Medieval Music (3)

*Prereq.: MUS 3710 or successful passing of the Music History Diagnostic Examination.* History of music from ancient Greeks and Hebrews through the 14th century.

#### MUS 7752 Music of the Renaissance (3)

*Prereq.: MUS 3710 or successful passing of the Music History Diagnostic Examination.* Music of the 15th and 16th centuries.

#### MUS 7753 Music in the Baroque Era (3)

Prereq.: MUS 3710 or successful passing of the Music History Diagnostic Examination.

#### MUS 7754 Music in the Classical Era (3)

Prereq.: MUS 3710 or successful passing of the Music History Diagnostic Examination.

#### MUS 7755 Music in the Romantic Era (3)

Prereq.: MUS 3710 or successful passing of the Music History Diagnostic Examination.

#### MUS 7756 Music in the Modern Era (3)

Prereq.: MUS 3710 or successful passing of the Music History Diagnostic Examination.

#### MUS 7757 American Music (3)

*Prereq.: MUS 3710 or successful passing of the Music History Diagnostic Examination.* The most important phases in development of music in the U.S.

## MUS 7762 Measurement and Evaluation in Music (3)

Teacher-designed and standardized tests in music; learning theories.

## MUS 7764 Comparative Methods in Music Education (3)

Techniques in teaching music; functional projects; approaches and texts evaluated with emphasis on curriculum construction.

## MUS 7765 Philosophical Bases for Music Education (3)

Various philosophical bases for music education including their origin, function, development and implementation.

## MUS 7766 Current Issues in Music Education (3)

Develop broad perspectives from a multi-faceted review of issues affecting music education practice. Examine important contexts from which effective teachers make informed decisions.

## MUS 7767 Experimental Research in Music (3)

*Prereq.: ELRC 4006 and MUS 7905. Primarily for doctoral students in music.* Systematic investigation of musical behavior and music learning; collection, quantification and treatment of data; current research.

#### MUS 7768 Qualitative Research in Music (3)

An overview of major designs, methodologies and analysis techniques within qualitative research. Topics include: research ethics, Institutional Review Board protocols, constructing and proposing a study, methods of data collection, writing literature reviews, and techniques for conducting research and writing research reports.

### MUS 7771 Advanced Choral Conducting (3)

*Prereq.: previous study of conducting. Each course may be taken once for the MM and once for the DMA or PhD.* Independent study of the techniques required to conduct all styles of choral music with emphasis on score analysis and performance practices.

### MUS 7772 Advanced Choral Conducting (3)

*Prereq.: previous study of conducting. Each course may be taken once for the MM and once for the DMA or PhD.* Independent study of the techniques required to conduct all styles of choral music with emphasis on score analysis and performance practices.

#### MUS 7773 Advanced Band Conducting (3)

*Prereq.: previous study of conducting. Each course may be taken once for the MM and once for the DMA or PhD.* Independent study of the techniques required to conduct all styles of wind music with emphasis on score analysis and performance function.

## MUS 7774 Advanced Band Conducting (3)

*Prereq.: previous study of conducting. Each course may be taken once for the MM and once for the DMA or PhD.* Independent study of the techniques required to conduct all styles of wind music with emphasis on score analysis and performance function.

### MUS 7775 Advanced Orchestral Conducting (3)

*Prereq.: previous study of conducting. Each course may be taken once for the MM and once for the DMA or PhD.* Independent study of the techniques required to conduct all styles of symphonic music, with emphasis on score analysis and performance practices.

#### MUS 7776 Advanced Orchestral Conducting (3)

*Prereq.: previous study of conducting. Each course may be taken once for the MM and once for the DMA or PhD.* Independent study of the techniques required to conduct all styles of symphonic music, with emphasis on score analysis and performance practices.

## MUS 7777 Advanced Keyboard Literature I (3)

*Prereq.:* MUS 4757, MUS 4758 or equivalent. Each course may be taken twice; once for the MM and once for the DMA. Genres and styles from earliest examples of keyboard literature through the most recent trends.

#### MUS 7778 Advanced Keyboard Literature II (3)

*Prereq.:* MUS 4757, MUS 4758 or equivalent. Each course may be taken twice; once for the MM and once for the DMA. Genres and styles from earliest examples of keyboard literature through the most recent trends.

## MUS 7797 Master's Pedagogy Project (2)

*Pass-fail grading*. Completion of a 45-minute oral presentation and short supporting paper on a pedagogical topic.

#### MUS 7798 Master's Recital (1-3)

Prereq.: MUS 4797 or equivalent. May be taken for a max. of 3 sem. hrs. of credit.

## MUS 7799 Advanced Coaching in Applied Music (2)

May be repeated for credit. Max. amount of credit applicable toward a degree is 4 sem. hrs.

## MUS 7800 Introduction to Research in Music (3)

Required of all doctoral students; recommended for master's students who will write theses. Development of music research skills including knowledge of research resources and materials; use of library facilities; practice in a clear and logical writing style; and use of wide variety of methodologies and modes of inquiry.

### MUS 7801 Psychology of Music (3)

Physical and psychological bases of musical phenomena including physical properties of sound production, transmission, reception and perception; affective, physiological and cognitive responses to musical stimuli; and learning theories as related to musical development, ability and preference.

#### MUS 7903 Seminar in Music History (2-3)

Prereq.: MUS 3710 or successful passing of the Music History Diagnostic Examination. Each course may be taken 3 times for credit when topics vary. Only 6 sem. hrs. applicable to the MM degree; only 12 additional sem. hrs. applicable to the PhD; maximum for MM and PhD combined is 18 sem. hrs.

#### MUS 7904 Seminar in Music History (2-3)

Prereq.: MUS 3710 or successful passing of the Music History Diagnostic Examination. Each course may be taken 3 times for credit when topics vary. Only 6 sem. hrs. applicable to the MM degree; only 12 additional sem. hrs. applicable to the PhD; maximum for MM and PhD combined is 18 sem. hrs.

#### MUS 7905 Seminar in Music Education (2-6)

Each course may be taken 3 times for credit when topics vary. Only 6 sem. hrs. applicable to the MMEd degree; only 12 additional sem. hrs. applicable to the PhD; maximum for MMEd and PhD combined is 18 sem. hrs.

#### MUS 7906 Seminar in Music Education (2-6)

Each course may be taken 3 times for credit when topics vary. Only 6 sem. hrs. applicable to the MMEd degree; only 12 additional sem. hrs. applicable to the PhD; maximum for MMEd and PhD combined is 18 sem. hrs.

#### MUS 7921 Seminar in Music Theory (3)

Prereq.: MUS 3703 or successful passing of the Music Theory Diagnostic Examination. May be taken for a max. of 6 sem. hrs. of credit applicable to the MM degree when topics vary and only 12 additional sem. hrs. of credit applicable to the PhD when topics vary. Maximum for MM and PhD combined is 18 sem. hrs. of credit.

#### MUS 7928 Seminar in Choral Repertoire (3)

Each course may be taken 3 times for credit when topics vary. Only 6 sem. hrs. applicable to the MM degree; only 12 additional sem. hrs. applicable to the DMA; maximum for MM and DMA combined is 18 sem. hrs.

#### MUS 7929 Seminar in Choral Repertoire (3)

Each course may be taken 3 times for credit when topics vary. Only 6 sem. hrs. applicable to the MM degree; only 12 additional sem. hrs. applicable to the DMA; maximum for MM and DMA combined is 18 sem. hrs.

#### MUS 7997 Individual Projects in Music (1-3)

Prereq.: consent of departmental faculty concerned and dean of the School of Music. May be repeated for credit as follows: for master's degree, 3 sem. hrs.; for doctoral degree, 6 sem. hrs. beyond the master's or a total of 9 sem. hrs. if both master's and doctoral totals included.

#### MUS 7998 Special Topics in Music (2-3)

May be taken for a max. of 9 hrs. of credit when topics vary. Advanced studies in individual subject areas of music.

## MUS 8000 Thesis Research (1-12 per sem.)

"S"/"U"grading.

**MUS 9000 Dissertation Research (1-12 per sem.)** *"S"/"U" grading.* 

#### MUS 9001 Doctoral Solo Recital (1-3)

May be repeated twice (max. of 6 sem. hrs. of credit). Students specializing in organ may repeat four times (max. of 12 sem. hrs. of credit).

## MUS 9002 Second Doctoral Solo Recital (1-3)

#### MUS 9003 Doctoral Lecture Recital (1-3)

Does not fulfill final project requirement for DMA (MUS 9010).

#### MUS 9005 Concerto with Orchestra (1-2)

MUS 9006 Major Solo Part in an Oratorio or a Cantata (1)

## MUS 9007 Doctor of Musical Arts Role in Opera (1-3)

May be repeated for credit. May not be taken concurrently with MUS 4241. A max. of 4 hrs. of credit may be applied toward the DMA degree.

## MUS 9008 Doctor of Musical Arts Chamber Music Recital (2)

May be repeated for credit.

#### MUS 9009 Research and Monograph (1-12)

"S/U" grading. May be repeated until monograph is completed. For DMA candidates in performance only.

## MUS 9010 Lecture Recital with Written Document (1-9)

*Pass-fail grading. May be repeated.* Research, preparation, and presentation of a lecture recital and corollary written document.

#### MUS 9758 Repertoire (3)

May be taken for a max. of 9 hrs. of credit; however, amount of credit applicable to a degree is determined by student's advisory committee.

#### MUS 9759 Repertoire (3)

May be taken for a max. of 9 hrs. of credit; however, amount of credit applicable to a degree is determined by student's advisory committee.

## MUS 9925 Seminar in Literature and Style in Performance: Voice (3)

Historical developments of the various performance areas with concentration on their literature, important pedagogical principles, and stylistic problems related to each medium.

## MUS 9926 Seminar in Literature and Style in Performance: Voice (3)

Historical developments of the various performance areas with concentration on their literature, important pedagogical principles, and stylistic problems related to each medium.

## MUS 9929 Seminar in Literature and Style in Performance: Organ (3)

Historical developments of the various performance areas with concentration on their literature, important pedagogical principles, and stylistic problems related to each medium.

# MUS 9930 Seminar in Literature and Style in Performance: Organ (3)

Historical developments of the various performance areas with concentration on their literature, important pedagogical principles, and stylistic problems related to each medium.

# MUS 9931 Seminar in Literature and Style in Performance: Strings (3)

Historical developments of the various performance areas with concentration on their literature, important pedagogical principles, and stylistic problems related to each medium.

# MUS 9935 Seminar in Literature and Style in Performance: Brass (3)

Historical developments of the various performance areas with concentration on their literature, important pedagogical principles, and stylistic problems related to each medium.

## MUS 9936 Seminar in Literature and Style in Performance: Brass (3)

Historical developments of the various performance areas with concentration on their literature, important pedagogical principles, and stylistic problems related to each medium.

## MUS 9937 Seminar in Literature and Style in Performance: Percussion (3)

Historical developments of the various performance areas with concentration on their literature, important pedagogical principles, and stylistic problems related to each medium.

## Music: Graduate Applied Music Courses

MUS 7030 Graduate Voice (2-6)

MUS 7031 Graduate Piano (2-6)

MUS 7033 Graduate Organ (2-6)

MUS 7034 Graduate Harp (2-6)

MUS 7035 Graduate Violin (2-6)

MUS 7036 Graduate Viola (2-6)

MUS 7037 Graduate Cello (2-6)

MUS 7038 Graduate String Bass (2-6)

MUS 7039 Graduate Flute (2-6)

MUS 7040 Graduate Oboe (2-6)

MUS 7041 Graduate Clarinet (2-6)

MUS 7042 Graduate Saxophone (2-6)

MUS 7043 Graduate Bassoon (2-6)

MUS 7044 Graduate Trumpet (2-6)

MUS 7045 Graduate French Horn (2-6)

MUS 7046 Graduate Euphonium (2-6)

MUS 7047 Graduate Trombone (2-6)

MUS 7048 Graduate Tuba (2-6)

MUS 7049 Graduate Percussion (2-6)

MUS 7051 Graduate Composition (2-6)

MUS 7053 Graduate Electroacoustic Composition (2-6)

MUS 7054 Graduate Jazz Study (2-6)

MUS 7055 Graduate Collaborative Keyboard (2-6)

## Music: Primary Applied Music Courses

Admission to applied music courses is by audition only. These courses are offered for 2 or 3 credits. Students who elect 2 credits will receive 30 minutes of individual instruction per week; students who elect 3 credits will receive 60 minutes of individual instruction per week. These courses are for students whose declared major or minor is the specific instrument designated by the course number.

MUS 3130 Primary Voice (2-3) MUS 3131 Primary Piano (2-3)

MUS 3133 Primary Organ (2-3)

MUS 3134 Primary Harp (2-3)

MUS 3135 Primary Violin (2-3)

MUS 3136 Primary Viola (2-3)

MUS 3137 Primary Cello (2-3)

MUS 3138 Primary String Bass (2-3)

MUS 3139 Primary Flute (2-3)

MUS 3140 Primary Oboe (2-3)

MUS 3141 Primary Clarinet (2-3)

MUS 3142 Primary Saxophone (2-3)

MUS 3143 Primary Bassoon (2-3)

MUS 3144 Primary Trumpet (2-3)

MUS 3145 Primary French Horn (2-3)

MUS 3146 Primary Euphonium (2-3)

MUS 3147 Primary Trombone (2-3)

MUS 3148 Primary Tuba (2-3)

MUS 3149 Primary Percussion (2-3)

MUS 3151 Primary Composition (2-3)

MUS 3152 Primary Guitar (2-3)

MUS 3153 Primary Electroacoustic Composition (2-3)

MUS 3154 Primary Jazz (2-3)

## Music: Secondary Applied Music Courses

Admission to applied music courses is by audition only. These courses are offered for 2 or 3 credits. Students who elect 2 credits will receive 30 minutes of individual instruction per week; students who elect 3 credits will receive 60 minutes of individual instruction per week. These courses are designed for students who are not qualified to either major or minor in the specific instrument designated by the course number.

MUS 2130 Secondary Voice (2-3)

MUS 2131 Secondary Piano (2-3)

MUS 2133 Secondary Organ (2-3)

MUS 2134 Secondary Harp (2-3)

MUS 2135 Secondary Violin (2-3)

MUS 2136 Secondary Viola (2-3)

MUS 2137 Secondary Cello (2-3)

MUS 2138 Secondary String Bass (2-3)

MUS 2139 Secondary Flute (2-3)

MUS 2140 Secondary Oboe (2-3)

MUS 2141 Secondary Clarinet (2-3)

MUS 2142 Secondary Saxophone (2-3)

MUS 2143 Secondary Bassoon (2-3)

MUS 2144 Secondary Trumpet (2-3)

MUS 2145 Secondary French Horn (2-3)

MUS 2146 Secondary Euphonium (2-3)

MUS 2147 Secondary Trombone (2-3)

MUS 2148 Secondary Tuba (2-3)

MUS 2149 Secondary Percussion (2-3)

MUS 2151 Secondary Composition (2-3)

MUS 2152 Secondary Guitar (2-3)

MUS 2154 Secondary Jazz Study (2-3)

## **Music Education**

### MUED 1000 Foundations of Music Education (3)

Credit will not be given for both this course and EDCI 1000. Course is for music majors only. 2 hrs. lecture; 1 hr. lab. Field observations in music at the elementary and secondary levels; historical and philosophical foundations, introduction to instructional strategies, professional organizations, legal aspects and national standards of music education.

#### MUED 1700 Orientation to Music Education (1)

*Course may be repeated for a max. of 2 sem. hrs. of credit.* An overview of the music education profession; orientation to collegiate music study; and initial field experiences in the schools.

## MUED 2045 Teaching Music in Diverse Settings (3)

Prereq.: MUED 1000. Credit will not be given for both this course and EDCI 2045. Site-based teaching practica. 2 hrs. lecture; 2 hr. teaching practicum each week. Managerial aspects of instruction; application of research in music teaching and learning principles to the classroom and rehearsal setting.

## MUED 3170 Principles of Teaching Elementary School Music (3)

*Prereq.: MUED 1000 and MUED 2045.* Materials, methods and current trends in music teaching at the elementary level; curriculum development.

## MUED 3171 Principles of Teaching Secondary School Music (3)

*Prereq.: MUED 1000 and MUED 2045.* Materials, methods and current trends in music teaching at the secondary level; rehearsal techniques.

#### MUED 3630 Student Teaching in Music (9)

Prereq.: see "Requirements for Student Teaching" in the School of Music section of this catalog. Pass-fail grading. 1 hr. lecture; 30 hrs. lab.

## **Nuclear Science**

## NS 4352 Environmental Radiological Evaluation and Remediation (3)

*Prereq.: MEDP 2051.* Natural radiation environment with respect to primordial radionuclides; cosmic radiation and cosmogenic radionuclides; body burdens and radiation doses from the natural environment; man-made environmental radioactivity and radiation; environmental concerns in radioactive waste management; environmental contamination from radiation incidents.

# NS 4411 Fundamentals of Nuclear Radiation Science (3)

Prereq.: MATH 2065 or MATH 2090; PHYS 1202 or both PHYS 2112 and PHYS 2113.

Concepts of atomic and nuclear structure, transmutations and decay. Interactions of charged particles, neutral particles and photons with matter; radiation attenuation and energy deposition. Introduction to nuclear fission and fusion; application to nuclear power. Biological effects of radiation.

### NS 4570 Nuclear Facility Safety (3)

*Prereq.: PHYS 1202 or both PHYS 2112 and PHYS 2113.* Safety analysis of facilities that utilize radiation sources including hospitals and industrial sites; accident sequences; dispersal of radionuclides; estimation of dose and dose commitments; and engineered safeguards.

## **Nutrition and Food Sciences**

## NFS 1014 Food Theory and Skills (4)

Offered in Fall/Spring. *Prereq.: Credit or registration in NFS 1110. For Majors and Minors only. 3 hrs. lecture; 3 hrs. lab.* Principles of food theory, selection, preparation and management.

## NFS 1049 Science of Foods (2)

Offered in Fall. Concepts and principles related to selection, preparation, processing, preservation, distribution and use of foods.

### NFS 1110 Introduction to Nutritional Sciences (3)

Offered in Fall/Spring. *Prereq.*: BIOL 1001 OR BIOL 1201 OR CHEM 1001 OR CHEM 1201. Principles of nutrition and their application in promoting health; guidelines for assessing nutritional status; emphasis on the adult.

### NFS 2000 Fundamentals of Food Science (3)

Offered in Spring. *Prereq.: BIOL 1201 and CHEM 1201; majors only or permission of instructor*. Introduction to scientific principles in chemistry of food constituents, new product development, food preservation, processing, packaging and safety.

### NFS 2021 Dietetics as a Profession (1)

*Prereq.: majors only; for students in the Dietetics Concentration only or by consent of instructor.* Introduction to the dietetics concentration at LSU and the dietetic profession strategies for future practice.

## NFS 2091 Special Topics in Nutrition and Food Sciences (1-3)

Prereq.: permission of department.

May be taken for a max. of 6 hrs. of credit when topics vary. Contemporary issues in nutrition or food sciences of interest to special groups.

## NFS 2110 Methods of Nutritional Assessment (3)

Offered in Fall/Spring. *Prereq.: NFS 1110. For Majors and Minors only.* Assessment of nutritional status including dietary intake, body composition, risks of chronic diseases and laboratory analysis using appropriate software, including interpretations of nutritional status indicators and practice of nutritional counseling for general risk reduction of chronic diseases.

## NFS 2112 Human Lifecycle Nutrition (3)

Offered in Fall/Spring. *Prereq.: NFS 1110. For Majors and Minors only.* Nutritional needs during pregnancy, infancy, early childhood, adolescence, adulthood and later years.

## NFS 3000 Food Safety (3)

Offered in Fall. *Prereq.: BIOL 1201 and CHEM 1201; majors only or permission of instructor*. Basic concepts of food safety including: introduction into food safety; extensive examination of causative agents responsible for food borne illness; and food borne illness case studies.

### NFS 3025 Professionalism in Dietetics (3)

Offered in Fall. Prereq.: Nutrition and Food Sciences Majors Only; for students in the dietetics concentration only. Credit or registration in NFS 3110; credit or registration in EXST 2201 recommended. To develop dietetic professionalism preparedness in ethics, evidencebased practice decisions, technical and lay communications of dietetics principles, public policy advocacy, and internship application preparation.

### NFS 3110 Nutrition Counseling and Education (3)

Offered in Fall/Spring. *Prereq.: NFS 2110. For Majors and Minors only. Not for teacher certification.* Nutrition education and counseling skills needed for serving ethnically diverse individuals and groups.

### NFS 3114 Food and Culture (3)

Offered in Spring. *Prereq.: NFS 1014; and credit or registration in NFS 3110. Majors and Minors only.* Cultural, religious\ and historical influences on food, as it relates to nutrition, health and diet counseling.

### NFS 3115 Human Nutrition and Metabolism (3)

Offered in Spring. *Prereq.: NFS 1110 and BIOL 2083 or BIOL 4087 Majors and Minors only.* Energy metabolism and the functions, requirements, food sources of nutrients and nutrigenomics.

### NFS 3116 Community Nutrition (3)

Offered in Spring. *Prereq.: NFS 3110; Majors and Minors only.* Public health policies and programs; assessing communities to be able to design, implement and evaluate community nutrition programs.

# NFS 3119 Fundamentals of Quantity Food Production (4)

Offered in Fall. *Prereq.: NFS 1014; Credit or registration in BIOL 1011. For Majors only 3 hrs. lecture; 3 hrs. lab..* Principles and practical application of quantity food procurement, production, distribution and service; menu development; sanitation and safety; materials and resource management and development.

# NFS 3900 Nutrition and Food Science Research (1-3)

Offered in Variable. *Prereq.: permission of department. May be taken for a max. of 6 sem. hrs. of credit.* Student outlines and executes project and prepares a written report; problems related to nutrition, dietetics, management, processing, quality control, safety, and nutritional evaluation of food stuffs.

# NFS 3999 Food Science and Technology Seminar (1)

Offered in Fall. *Prereq.: permission of department. May be taken for a max. of 2 sem. hrs. credit.* Scientific seminar preparation and presentations on selected topics in food science and technology.

## NFS 4005 Food Engineering Systems (3)

Offered in Spring Odd. *Prereq.: PHYS 2001 and MATH* 1550 or equivalent. 2 hrs. lecture; 3 hrs. lab. Application of engineering principles to various unit operations in food processing.

### NFS 4021 Contemporary Topics in Nutrition (1)

Offered in Fall/Spring. *Prereq.: BIOL 2083 or BIOL 4087, CMST 2060, and credit or registration in NFS 3116.* Oral presentations of independent library or other research on selected contemporary issues in food, nutrition, dietetics or food systems.

## NFS 4023 Management in Dietetics (3)

Offered in Spring. *Prereq.: NFS 3119; MGT 3200 and registration or credit in NFS 3116. Majors only.* Management applications to food service systems, clinical dietetics and community programs.

### NFS 4027 Practicum in Dietetics (1-3)

Prereq.: majors only; for students in the dietetics concentration only; 60 hrs. in Nutrition and Food Sciences curriculum; overall GPA of 3.2; and permission of instructor. Each hour of credit requires 60 hours of supervised experience. May be taken or repeated, when topics vary, for a max. of 3 hrs. of credit. Supervised professional experience designed to integrate academic learning with practice in dietetics.

## NFS 4040 Quality Assurance in the Food Industry (4)

Offered in Spring Even. See ANSC 4040.

### NFS 4050 Food Composition and Analysis (4)

Offered in Spring. *Prereq.: NFS 4060 and CHEM 2060 or CHEM 2261 or equivalent. 3 hrs. lecture; 3 hrs. lab.* Principles of official and acceptable chemical and physical

methods used in food analysis; application of these methods to examination of raw and processed foods.

## NFS 4060 Food Chemistry (4)

Offered in Fall. *Prereq.: BIOL 2083 and either CHEM 2060 or CHEM 2261 or equivalent. 3 hrs. lecture; 3 hrs. lab.* Chemistry of food components; reactions occurring during processing and storage.

## NFS 4070 Food Laws, Standards and Regulations (2)

Offered in Fall. *Prereq.: consent of instructor*. Federal, state and city food laws, and how they are regulated, manufactured, distributed and use of foods, additives and regulated products.

## NFS 4075 Food Preservation (3)

Offered in Fall. *Prereq.: CHEM 2060 or CHEM 2262 or equivalent, BIOL 2051 and at least 3 sem. hrs. in any food science course or consent of instructor. 2 hrs. lecture; 3 hrs. lab.* Microbiology and biochemistry of food spoilage; engineering techniques of food preservation and food plant sanitation; methods of food preservation.

### NFS 4076 Food Product Development (3)

Offered in Spring. *Prereq.: NFS 4060 and NFS 4095. Capstone course that food science students should take in their last spring semester of their program, after having taken a majority of their food science courses. 2 hrs. lecture; 3 hrs. lab.* Development of new food products; marketing, package design and other aspects of product development.

## NFS 4086 Seafood Processing (3)

*Prereq.: BIOL 1201 and CHEM 1201 or permission of instructor.* Examination of all aspects of seafood processing including: history and economic importance of the seafood processing industry; resources; processing techniques (freezing, canning, drying, salting and pickling); processing by species; storage and distribution; and regulatory and food safety considerations.

## NFS 4095 Principles of Sensory Evaluation of Foods (4)

Offered in Fall. *Prereq.: EXST 2201 or equivalent. 3 hrs. lecture; 3 hrs. lab.* Theory and current practices used to evoke, measure, analyze and interpret reactions to those characteristics of foods and materials as they are perceived by the human senses of sight, smell, taste, touch and hearing.

## NFS 4110 Capstone in Nutritional Sciences (3)

Offered in Spring. *Prereq.: NFS 4111 and credit or registration in NFS 3116 and EXST 2201. This course is limited to Nutrition and Food Sciences Majors only. 2 hrs. lecture; 3 hrs. lab/field work.* Research methods used in nutritional sciences; research project is included.

### NFS 4111 Nutrition and Disease I (4)

Offered in Fall. *Prereq.: BIOL 2153 or BIOL 2160; NFS 2112, NFS 3110 and NFS 3115. Majors and Minors only. 3 hrs. lecture; 3 hrs. lab.* Nutrition assessment and interpretation; drug /nutrient interactions; biochemical and physiological changes that occur in dental, gastrointestinal and absorption abnormalities that require clinical diet modification.

### NFS 4114 Nutrition and Disease II (4)

Offered in Spring. *Prereq.: NFS 4111; Majors and Minors only. 3 hrs. lecture, 3 hrs. lab.* Biochemical and physiological changes that occur in immunological disorders, weight abnormalities, diabetes, cancer and disorders of the heart or kidney, that require clinical diet modification; nutritional needs of hypermetabolic states and inborn errors of metabolism.

#### NFS 4162 Food Microbiology (4)

Offered in Spring. *Also offered as BIOL 4162. Prereq.: BIOL 2051 and consent of department. 2 hrs. lecture; 4 hrs. lab.* Microbiological principles as applied to food and food products; emphasis on rapid detection of food borne microorganisms.

#### NFS 4163 Industrial Microbiology (4)

Prereq.: BIOL 4110 or equivalent. 2 hrs. lecture; 4 hrs. lab. See BIOL 4163.

## NFS 7001 Macronutrients (3)

Offered in Fall Odd. Nutritional aspects of protein, lipids and carbohydrates; deficiencies, interrelationships, requirements and metabolic pathways.

#### NFS 7002 Topics in Micronutrients (2)

Offered in Fall Even. *May be taken for a max. of 8 sem. hrs. of credit when the topic varies.* An integrated system approach to the importance and functions of vitamins and minerals in nutrition. Epidemiological to molecular aspects discussed.

#### NFS 7004 Molecular and Clinical Nutrition I (2)

Offered in Fall. *Prereq.: BIOL 4087 or BIOL 4094 or permission of the coordinator.* The development of current concepts of nutritional effects on health and disease through the use of cellular/molecular tools.

#### NFS 7005 Molecular and Clinical Nutrition II (2)

Offered in Fall Even. *Prereq.: NFS 7004.* The development of current concepts of nutritional effects on health and disease through the use of cellular, molecular, genetic and epidemiologic tools.

### NFS 7010 Food Toxicology (3)

Offered in Spring Odd. *Prereq.: NFS 4060 or permission of instructor*. Principles of risk assessment, food chemical safety and toxicology; mycotoxins, aquatic toxins; natural toxins; food additives; and other food toxins.

## NFS 7011 Current Advances in Food and Nutrition (1-4)

May be taken for a max. of 9 sem. hrs. of credit when topics vary. Recent research and developments in food, nutrition, dietetics or food systems.

## NFS 7012 Food, Nutrition, and Health Promotion (3)

Offered in Fall Even. Individual factors and the role of the environment, sectors of influence, and social and cultural norms impacting dietary habits and food consumption; nutrition policy and dietary intake to promote health and wellness.

### NFS 7020 Food Packaging (3)

2 hrs. lecture; 3 hrs. lab. Food package systems related to specific products and processes. Product composition, problems and packaging solutions and shelf life considerations.

## NFS 7021 Weight Management Principles and Practices (3)

Offered in Spring Odd. The scientific principles of weight management with an emphasis on lifestyle modification for improving health.

## NFS 7022 Current Controversies in Food and Nutrition (3)

Offered in Fall. Review of current controversies in food and nutrition with emphasis on analysis, argumentation, and critical evaluation of the scientific evidence.

## NFS 7030 Advanced Food and Nutrition Research (1-6)

Offered in Variable. *Prereq.: consent of instructor. May be taken for a max. of 9 sem. hrs. of credit.* Individual problems in pertinent areas of nutrition and food sciences.

### NFS 7040 Flavor and Colors of Foods (3)

Offered in Fall. *Prereq.: CHEM 2060 and NFS 4060 or equivalent. 2 hrs. lecture; 3 hrs. lab.* Methods of chemical, physical and instrumental analysis in food colors and flavors; natural and synthetic flavorings and colorings.

#### NFS 7050 Food Protein Biotechnology (3)

Offered in Fall Even. *Prereq.: NFS 4060, NFS 4050 or permission of instructor.* Overview of contemporary principles and applications of protein and enzyme technology, genetic engineering and immunology for the production of safe foods and food ingredients; proteins as functional food ingredients; applications and regulations of protein biotechnology in the food industry as well as ethical and legal issues; career opportunities in protein and enzyme biotechnology.

## NFS 7060 Advanced Concepts in Food Science (3)

*Prereq.: NFS 4060 and BIOL 4087.* Analysis of new and progressive concepts in food science.

## NFS 7071 Seminar in Nutrition and Food Sciences (1)

Offered in Fall/Spring. *May be taken for a max. of 3 hrs. of credit.* Selected topics in nutrition, food science, and food technology.

## NFS 8000 Thesis Research (1-12 per sem.)

 $"S"/"U"\ grading.$ 

**NFS 9000 Dissertation Research (1-12 per sem.)** *"S"/"U" grading.* 

## **Oceanography & Coastal Sciences**

## OCS 1005 Introduction to Oceanography (3)

This is a General Education course. An honors course, OCS 1006, is also available. Credit will not be given for this course and OCS 1006. The world's oceans, their origin and evolution; interactions between physical, geological, chemical and biological processes in the marine environment; use and abuse of oceans.

# OCS 1006 HONORS: Introduction to Oceanography (3)

This is a General Education course. *Similar to OCS 1005 with special honors emphasis for qualified students. Credit will not be given for this course and OCS 1005.* Interaction of physical, geological, chemical and biological processes of the ocean; effect of human activities.

## OCS 1010 Introduction to Coastal Environmental Science (1)

*Also offered as ENVS 1010.* Global views of coastal issues with a focus on the Gulf of Mexico and deltaic areas around the world.

# OCS 2007 Introduction to Marine Sciences: Geological and Physical (3)

Geological and physical processes in marine and aquatic environments; including their influence on coastal Louisiana, the Gulf of Mexico and elsewhere.

## OCS 2008 Introduction to Marine Sciences: Life Processes (3)

Marine organisms, communities, ecological processes in marine and aquatic settings in coastal Louisiana, the Gulf of Mexico and elsewhere.

## OCS 2011 Introduction to MATLAB for Coastal Sciences (3)

Prereq.: OCS 2007 and OCS 2008. Credit will not be given for both this course and CSC 1240 or CSC 2533. Introduction to MATLAB with emphasis on coastal and oceanographic data visualization and manipulation. Importing large datasets into MATLAB, 2D and 3D plotting, mapping and overlaying quantitative data on maps, manipulating color bars, animating data and exporting images for presentations and publications.

# OCS 2020 Introduction to Marine Science: Field and Laboratory Methods (2)

*Prereq.: OCS 2007 and OCS 2008 or permission of instructor.* Course designed to familiarize student with sample collection, sample processing, analytical methods, and instrumentation commonly used in marine science, as well as techniques relevant to biological, chemical, physical, and geological oceanographers.

# OCS 2050 Coastal Systems Ecology and Ecosystem Design (3)

This is a General Education course. Fundamental principles of systems ecology to instruct "systems thinking" to link natural and built infrastructure, processes, and ecosystem dynamics with focus on deltaic coasts; creating innovative methods to frame the complexity of designing more resilient coastal ecosystems (ecosystem design).

## OCS 3103 Global Environmental Cycles (3)

Prereq.: CHEM 1201 and MATH 1550; credit or registration in BIOL 1201.

Major hydrologic and elemental cycles on the planet, global change and processes, energy balance, including problems associated with climate, pollution, population and resources.

## OCS 3200 Hurricanes and Typhoons (3)

Comprehensive introduction to hurricanes as a multifaceted phenomenon; hurricane meteorology and climate variability, oceanographic response and coastal impacts, storm deposition, ecological effects, geological and historical records and societal impacts and response.

## OCS 3999 Undergraduate Research in Coastal Sciences (1-6)

*Prereq.: permission of Department. May be taken for a max. of 6 sem. hrs. of credit.* Individual research problems in the oceanographic and coastal sciences.

## OCS 4001 Special Topics in Oceanography and Coastal Sciences (1-6)

May be taken for a max. of 9 sem. hrs. of credit when topics vary.

# OCS 4006 Wetland Field Experience - Florida Everglades, Mangroves, and Seagrasses (3)

Students will be partially responsible for travel costs associated with this course. A 13 day field trip through the Everglades, mangroves, and seagrass beds of south Florida focusing on plant ecology, hydrology, biogeochemistry, and wetland management; field trips may include identification of plant and animal species, kayaking through the sawgrass marshes and mangroves, and participation in wetland research and restoration activities.

## OCS 4012 Biology of Marine Vertebrates (3)

*Prereq.*: 8 sem. hrs. of introductory zoology or biology with *laboratory*. Evolution, life history, ecology and management of marine fishes, reptiles, birds and mammals.

# OCS 4015 Oceans to Estuaries I: Geology and Physics (5)

*Prereq.: Two semester introductory courses in physics and geology, MATH 1550 and MATH 1552.* Major geological and physical processes and products within the world's oceans, including the open ocean, continental margins, estuaries and intertidal areas.

# OCS 4016 Oceans to Estuaries II: Chemistry and Biology (5)

*Prereq.: CHEM 1201 and CHEM 1202, BIOL 1201 and BIOL 1202, MATH 1550 and MATH 1552.* Major chemical and biological processes within the world's oceans, including the open ocean, continental margins, estuaries and intertidal marshes.

# OCS 4021 Weather Analysis and Satellite Meteorology (3)

Diagnostic studies of surface and upper-air observational data using isoplething charts and satellite images to represent the state of the atmosphere over both land and sea; the use of satellite technology in weather forecasting including cloud identification, wind direction, storm development and air quality.

## **OCS 4024 Coastal Morphodynamics (3)**

Also offered as GEOG 4024. Prereq.: MATH 1021, MATH 1022 or MATH 1023. Basic morphodynamic processes operative along coasts; emphasis on modern coastal process response systems.

## OCS 4030 Techniques of Research Presentation (1)

*Pass-fail grading. May be taken for a max. of 2 hrs. of credit when topics vary.* Guidelines for effective scientific seminar presentations.

## OCS 4038 Scientific Writing and Collaboration (2)

*Credit will not be given for this course and ENGL 4002.* Provide experience in writing for scientific publications; practical advice on ethical behavior and working collaboratively with others; topics include grammar, organization of manuscripts, preparation of figures and tables, organization of journals, submission process, reviewing other's manuscripts, formal and informal models of group dynamics, personality types, practical tips for working with others and time management.

## OCS 4060 Introductory Estuarine Dynamics (3)

*Prereq.: MATH 1552 or consent of instructor.* Classification of estuaries, description of coastal and estuary flow regimes, tides, hydrodynamic measurements, mixing, stratification, dispersion, river discharge and weather influence and dynamical processes in Louisiana estuaries and bays.

## OCS 4061 Introductory Oceanographic Data Analysis (3)

*Prereq.: MATH 1550 and EXST 2201. 2 hrs. lecture; 2 hrs. lab.* Targeting time series and space series from the ocean and coastal waters using techniques of data analysis such as digital sampling, filtering and spectrum analysis. These techniques are applicable to different types of data, including wind, water level, currents, DO, nutrients, optical parameters, etc. from moorings or moving platforms.

### OCS 4090 Marine and Environmental Microbiology (3)

Also offered as BIOL 4090. Prereq.: BIOL 2051 or equivalent. Characterization and ecology of estuarine, open-ocean and terrestrial microorganisms and the role these microbes play in cycling organic and inorganic compounds; microbial activity in biogeochemical cycles extreme environments and organic pollutants; indicator species; pathogenic bacteria and their transmission in the environment and seafood-related contamination.

## OCS 4126 Chemical Oceanography (3) See GEOL 4081.

## OCS 4128 Wetland Hydrology and Hydrodynamics (3)

*Prereq.: MATH 1550, MATH 1552, GEOL 1001 or equivalent.* Basic surface water and ground water hydrology in wetland environments with an emphasis on hydrologic principles, application of hydrologic techniques to wetlands and understanding of hydrodynamics in these ecosystems.

## OCS 4165 Environmental Chemistry of Wetlands (3)

*Prereq.: CHEM 2060 or equivalent.* Transformations of pollutants and toxic substances that affect the solubility, bioavailability, fixation and degradation of organic and inorganic substances in wetlands; emphasis on biological and physiochemical properties of wetlands that enhance this degradation and fixation.

## OCS 4170 Physical Oceanography (3)

*Prereq.: two semester course in Physics and MATH 1552 or MATH 1554; or consent of instructor.* Physics of the ocean; with emphasis on dynamical problems; general circulation of the ocean; physical properties of sea water; flow dynamics in the earth's rotating coordinate system, estuarine and coastal ocean dynamics.

## OCS 4210 Geological Oceanography (3)

*Prereq.: two-semester introductory course in geology.* Principles of marine geology; sediments and sedimentation in the marine environment from the near shore zone to the abyssal plain; geological effects of bottom currents; sealevel history; geophysical techniques; continental drift and sea-floor spreading; tectonic history of the oceanic crust.

## OCS 4242 Wetlands and Water Quality (3)

An integrative view of wetland ecosystems with an emphasis on eutrophication and water quality.

## OCS 4268 Environmental and Natural Resources Policy (3)

See ENVS 4268.

## OCS 4308 Plants in Coastal Environments (3)

Also offered as BIOL 4308. Prereq.: one-semester course in biology or ecology or consent of instructor. Weekend field trips as needed. Ecology of Louisiana's major coastal plant communities; emphasis on influence of environmental factors controlling plant distribution and productivity; physiological, morphological and anatomical mechanisms aiding plant survival; man's impact on Louisiana's coastal plant communities.

#### OCS 4372 Estuarine Ecology (4)

Prereq.: graduate standing or consent of instructor. Preparation of field trips; synthesis and presentation of data collected on field trips to coastal areas. 3 hrs. lecture; 2 hrs. lab. Ecological processes in estuaries, shallow coastal waters and associated coastal environments; training and field use of equipment required for estuarine research.

#### OCS 4410 Ecosystem Modeling and Analysis (3)

*Prereq.: MATH 1552 and consent of instructor.* Mathematical description and analysis of ecological systems; emphasis on systems approach using matter and energy flow models for quantifying and analyzing interdependence and dynamics in ecosystems; linear flow models, dynamic nonlinear models, optimization models, stochastic models and computer techniques for modeling, validation, sensitivity analysis and parameter optimization.

#### **OCS 4465 Coastal Zone Management (3)**

Non-law students encouraged to participate. Written and oral presentation required; special projects relating to the primary field of interest permitted. Resources allocation and environmental quality issues in coastal and estuarine zones of the U.S.; evaluating alternative solutions to topical coastal zone issues; preparing legal devices for meeting the issues, such as legislation, regulations, contract provisions and deed restrictions; traditional law courses in water law, environ-mental law, natural-resources law and land-use planning.

#### OCS 4550 Biological Oceanography (3)

Prereq.: two-course undergraduate science sequence above 2000 level or graduate student status in science department. Participation in oceanographic cruise is generally required. Biology of open oceans, continental shelves and large river deltas.

# OCS 4560 Wetland Loss, Restoration and Management (3)

Prereq.: two-course sequence in science above the 2000 level. Participation in field trips to local wetlands and management agencies is required. Coastal wetland loss, restoration and management; wetland values, use and potential management issues.

# OCS 4565 Restoration Ecology/Ecological Restoration (3)

Prereq.: permission of instructor. Field trips. Students are responsible for paying some expenses for field work. 2 hrs. lecture; 1 hr. lab. The science of restoration ecology and the practice of ecological restoration.

## OCS 4600 Global Environmental Change: Past, Present and Future (3)

Also offered as ENVS 4600. Patterns and processes of global climate changes during the Quaternary and their links to the biosphere, cryosphere and ocean; proxies and archives; climate forcing and biotic responses; current warming and future impacts; human ecology of climate change; energy supply and human health; sustainability and policy.

# OCS 4999 Capstone in Coastal Environmental Science (1)

See ENVS 4999.

## OCS 7001 Advanced Topics in Marine Sciences (1-6)

May be taken for a max. of 9 sem. hrs. when topics vary.

#### OCS 7028 Numerical Modeling of Ocean Circulation (3)

Fundamental concepts in computational fluid dynamics; finite difference and finite volume numerical methods; review of state-of-the-art ocean models and their applications to coastal oceans, estuaries, and marine environment.

## OCS 7029 Case Studies in Coastal Ecosystem Modeling (3)

Coastal ecosystem modeling in the northern Gulf of Mexico region. Modeling theory; case studies; overview of existing ecosystem models.

## OCS 7110 Toxicology of Aquatic Environments (3)

See ENVS 7110.

## OCS 7112 Concepts in Marine Ecotoxicology (3) *Prereq.: ENVS 7110.* See ENVS 7112.

#### OCS 7120 Dynamical Oceanography (3)

*Prereq.: consent of instructor.* Dynamics of rotating, stratified, incompressible fluids with particular application to the oceans; conservations equations and boundary conditions, surface and internal gravity waves, vorticity, geostrophic adjustment, coastal trapped waves, Rossby waves, wind-driven ocean circulation.

# OCS 7121 Ecology and Management of Tropical Estuaries (3)

Offered in Su Prereq.: 6 hrs. in marine ecology and consent of instructor. Two-week field trip/lecture at the Centro de Investigaciones y Estudios Avancados in Merida, Mexico. 20 hrs. per week. Intensive field course concerning aspects of ecology and management of tropical estuaries; plankton systems, sea grasses, mangroves, benthos, nekton and macroalgae; emphasis on human impact and management, global change issues and use of modeling.

## OCS 7122 Gravity Waves in Shallow Water (3)

*Prereq.: MATH 1550, MATH 1552.* Linear and nonlinear theories of water gravity waves considered by classical mathematical derivation and numerical methods; wave transformation in shallow water; characteristics of boundary layer under wave action; wave-related phenomena in near shore zone.

### OCS 7123 Oceanographic Data Analysis (3,3)

*Prereq.: MATH 1550 or equivalent.* Statistical techniques for analysis of oceanographic time and space series data; spectrum analysis; objective analysis; empirical orthogonal functions and Kalman filters.

## OCS 7124 Applied Coastal Plant Ecology (3)

Prereq.: 6 sem. hrs. in biology or environmental science. Field trips included. Students are responsible for paying for travel expenses associated with the course. Concepts of applied coastal plant ecology; field experiences in coastal habitat restoration and management; applied wetlands' functions, wetland classification, evaluation and delineation, and environmental assessment monitoring.

## OCS 7129 Global Climate Change and Wetlands (3)

*Prereq.: consent of instructor.* Impact of projected global climate change on stability and functioning of coastal and interior wetland ecosystems; feedback of biogeochemical changes in wetlands caused by climate change.

## OCS 7130 Marine Isotope Biogeochemistry (3)

*Prereq.: graduate standing or consent of instructor.* Concepts and laboratory principles for stable and radioactive isotopes, first-hand experience interpreting isotopic data, modern applications in oceanography and biogeochemistry.

### OCS 7131 Marine Geochemistry (3)

Geochemical processes in the marine environment, including water column geochemistry, pore water processes and interactions across the sediment-water interface and early diagenesis; emphasis uranium-thorium decay series radionuclide applications in marine geochemistry.

### OCS 7132 Coastal Physical/Chemical Systems: Analytical Methods (3)

*Prereq.: consent of instructor. 2 hrs. lecture; 3 hrs. lab.* Sampling techniques; proper handling and preservation of samples; sample processing for analysis; application of spectroscopy and chromatography analytical instrumentation for the determination on nutrients, trace and toxic metals, synthetic organics (pesticides and industrial organics), and petroleum hydrocarbons in water, soil and sediment samples; techniques presented in terms of application of analytical chemistry to environmental and natural systems.

## OCS 7165 Biogeochemistry of Wetland Soils and Sediments (3)

*Same as AGRO 7165.* Microbial and redox chemistry processes in fresh water, brackish water and estuarine-flooded soils and sediments affecting the trans-formations of nutrients and toxic materials.

## OCS 7170 Satellite Oceanography (3)

*Prereq.: OCS 4170 or equivalent.* Oceanographic measurements and observations using satellite-borne sensor systems; radiation-ocean-atmosphere interactions, satellite systems, sensor design and data types; analysis of infrared, visible and microwave data for deep ocean, coastal and estuarine phenomena.

## OCS 7175 Environmental Optics (3)

Nature of light, solar radiation and its transmission through the atmosphere and the aquatic medium and interactions in the medium; optical instrumentation and applications.

## OCS 7310 Harmful Algal Blooms (3)

Harmful algal species and associated syndromes; ecophysiological processes for bloom initiation and development; eutrophication; grazing impact; impacts on marine life and human health; identification, enumeration of algae and toxin detection techniques; HAB management.

## OCS 7317 Marine Ecology (3)

See BIOL 7120.

## OCS 7330 Preparing for Studies of Fish and Other Aquatic Resources (3)

A detailed, semi-quantitative introduction to current biological and technological methodologies for studying fishes and aquatic habitats, with emphasis on reducing bias introduced by study design and choice of sampling gears.

### OCS 7335 Marine Fisheries Recruitment (3)

Examining the relationship between fish life history, recruitment dynamics and harvest potential, and local-, meso-, and global-scale oceanographic processes.

## **OCS 7340 Population Dynamics Modeling (3)**

Broad survey of the quantitative modeling methods used for simulating animal and plant population dynamics; use of these models in both theoretical analyses and management decision-making.

### **OCS 7431 Stock Assessment Analysis of Marine** Fish Populations (3)

Prereq.: OCS 7340. Quantitative methods used in management of fish populations through analytical approaches used to model populations and statistically estimate the status of the resources used in management decision-making.

### **OCS 7432 Marine Fisheries Policy and** Management (3)

Policies used in managing marine fisheries in the U.S. and internationally with emphasis on scientific role. Survey and analysis of domestic and international legislation and treaties.

#### OCS 8000 Thesis Research (1-12 per sem.) "S"/"U"grading.

#### **OCS 8900 Advanced Reading and Literature** Research (1-6)

May be taken for a max. of 6 sem. hrs. of credit.

## OCS 8901 Advanced Field Research (1-6)

May be taken for a max. of 6 sem. hrs. of credit.

## OCS 9000 Dissertation Research (1-12 per sem.)

"S"/"U"grading.

## **Public Administration**

### PADM 5009 Research Methods for Public Administration (3)

Introduces students to the development of a research question and the procedures of using empirical observations and data, describing the practical and technical issues of sampling, surveying, measurement, research design, analysis, and preparation of research reports.

### PADM 5010 Statistical Methods for Public Administration (3)

Prereq.: PADM 5009. Open only to students in the MPA program. Descriptive measures for populations and samples; basic probability theory; distributions of discrete and continuous random variables; hypothesis testing and estimation for means, variances, and proportions; measures of association; regression analysis; index numbers; applications in public administration.

## PADM 5600 Microeconomic Theory for Policy Analysis (3)

Also offered as ECON 5600. Open only to students in the MPA program or by consent of instructor. Concepts and analytical tools of microeconomics; their relevance for decision and policy making in public and nonprofit sectors; theories of demand, production, cost, market structures and distribution; analysis of economic problems and policies, efficiency criteria, social impacts and limitations of the market system.

### PADM 7610 Healthcare Organization and Finance (3)

Overview of effective management of healthcare organizations, including understanding of their historical development and future opportunities; current issues relating to financing, regulation, reimbursement, managed care systems and system integration.

## PADM 7620 Strategic Management of Healthcare Organizations (3)

Prereq.: Cross-listed with MGT 7620. Strategic planning and development of healthcare organizations focusing on long-term viability; integration of financial decisions with organizational goals and consumer health.

### PADM 7640 Legal and Ethical Issues in Health Care Management (3)

Legal and ethical issues in the delivery of health care including patients' rights, organizational responsibilities, malpractice issues, relationships among patient, providers and insurers, governmental influence in health care management, patient-provider relationships, advancing technology and medical alternatives, working with limited resources and organizational efforts to deal with ethical issues.

### PADM 7800 Independent Study in Public Administration (3)

Prereq.: at least 15 credit hours of graduate work; prior written approval of faculty supervising work. May be taken for a max. of 6 hrs. of credit. Independent study by MPA student.

### PADM 7850 Public Administration Internship (3)

Prereq.: at least 15 credit hours of graduate work completed and approval of the Director of the MPA program. Required of all pre-service MPA students. Work within a federal, state or local govern-ment unit, nonprofit or private concern interfacing with the public sector; regular meetings with faculty; submission of a research report to the faculty member; internship is designed to connect academic and professional training to actual work experience.

### PADM 7851 Public Administration Practicum (3)

Prereq.: at least 15 sem. hrs. of graduate course work completed and approval of the Director of the MPA Program. Required of all MPA students. In-service students will be determined by the MPA Director. Related academic and professional training to work experience associated with the student's present employment; regular meetings with faculty and preparation of research paper indicating relationship between principles of public management and work activities.

## PADM 7900 Public Administration Colloquium (3)

Required of all MPA students in final semester of program; research project required. Legal, ethical, economic, political and management principles used in assessing public administration topics; policy and administration issues.

## PADM 7902 Seminar in Public Policy (3)

Also offered as POLI 7902.

## PADM 7904 Seminar in Policy Dilemmas and Decisions (3)

Exploring the difficulties of collective decision-making and the instruments and processes involved in reaching consensus; areas of focus include the structure of strong arguments, models and rationality, participation, and probabilistic reasoning using contemporaneous and historical case studies.

## PADM 7910 Public Administration Theory and Practice (3)

Contents and boundaries of public administration as discipline; topics include historical development of public administration as a field of study; organizational theory; professional ethics; policy development; management techniques to enhance productivity and performance; leadership; diversity; and other relevant issues for public managers; case studies used intensively.

## PADM 7911 Organizational Analysis for Public and Nonprofit Organizations (3)

Analyzing elements of effective organizational functioning in the public and nonprofit sectors, and the development of diagnostic skills to improve performance; incorporates organizational behavior and theory in the study of achieving effectiveness, efficiency and growth.

# PADM 7912 Public Human Resource Management (3)

Explores human resource policy, including procedures and principles of personnel administration; traditional aspects of personnel administration including recruiting, job classification, evaluation, and compensation and dynamic topics include workforce diversity, drug abuse, whistle blowing, sexual discrimination, labor relations and other relevant issues.

#### PADM 7913 Advanced Topics in Human Resource Management in the Public and Non-Profit Sector (3)

*Prereq.: PADM 7912 or permission of instructor.* Advanced topics in human resource management including human resource management and organizational structure, workforce diversity, technology, legal and ethical issues, public policy issues, improving productivity and other special topics of interest. Topics will vary from semester to semester.

## PADM 7914 Public Budgeting (3)

Introduction to public budgeting; study of budget techniques; importance of budgeting in policymaking; and understanding the budget process.

#### PADM 7916 State and Local Government Administration (3)

Examination and analysis of how state and local governments are structured and how they are managed; case studies will be used to illustrate state and local administration; current issues relating to financing, regulation, zoning, delivery systems of local.

## PADM 7917 Program Evaluation (3)

Also offered as POLI 7917. Prereq.: PADM 5010 or equivalent course in statistics. Assessing whether programs designed to advance the public good are reaching their goals; examining program objectives, social context in which program operates, developing research designs to assess particular programs; use of statistical analysis in measuring program elements; and developing indicators to monitor public program.

#### PADM 7920 Ethics in the Public Service (3)

Examination and analysis of role that ethical behavior and moral reasoning play in the practice of public administration; overview of dominant schools of classical ethical thought, including works of Socrates, Plato, Aristotle, Kant, Rawls and Bentham, and leading ethical theories such as consequentialism, deontology, virtue ethics and ethical relativism; readings, case studies, and experiential exercises will be used to explore the role of ethics in public service.

## PADM 7924 Public Financial Management (3)

Also offered as FIN 7710. Prereq.: PADM 7914 or permission of instructor. Financial management of public agencies, including sources of financing for different levels of governments, debt financing and capital budgeting, as well as other related topics.

#### **PADM 7925 Seminar in Nonprofit Management (3)** Overview of principal management functions as applied to

Overview of principal management functions as applied to nonprofit organizations.

## PADM 7970 Fundraising and Grantwriting (3)

Development of fundraising and grantwriting skills for nonprofit organizations. Class structure includes lectures, seminar discussions, experiences with professional fund raisers and hands-on applications.

### PADM 7980 Crisis Management (3)

Explore complex challenges that crises pose, including noting causes of crises, short and long term effects of crisis, consequences of crises and disasters and public policy responses to crisis. Seminar will build on theoretical explanations and insights, real-life crisis management case studies and preparation of actionable alternatives to public authorities.

## **Pathobiological Sciences**

## PBS 7002 Pathobiological Sciences Research Techniques (1-4)

May be taken for a max. of 6 sem. hrs. of credit. Specialized research techniques related to a specific discipline of pathobiological sciences.

## PBS 7003 Special Topics in Pathobiological Sciences (1-4)

*Prereq.: consent of instructor. May be taken for a max. of 8 hrs. of credit.* Topics of current interest in pathobiological sciences.

## PBS 7004 Current Literature in Pathobiological Sciences (1)

*Pass/fail grading. May be taken for a maximum of 6 hrs. of credit.* Review of the literature in areas of pathobiological sciences presented in a discussion format.

### PBS 7007 Seminar (1)

*Pass-fail grading. May be taken for a max. of 4 hrs. of credit.* Research presentations by visiting scienctists. Presentations center around infectious disease research in the fields of bacteriology, virology, immunology, parasitology and pathology.

## PBS 7310 Zoonotic Infectious and Parasitic Diseases (3)

#### Prereq.:

Epidemiology, ecology and control of major infectious and parasitic zoonoses.

### PBS 7312 Concepts in Epidemiology (4)

Introduction to the basic concepts of epidemiology with emphasis on the appropriate use and interpretation of epidemiological methods.

### PBS 7413 Techniques in Flow Cytometry (1)

*2 hrs. lab.* Instruction and laboratory practices in principles and applications of flow cytometry; topics include cell processing and staining with fluorescent probes as a measurement of immunophenotyping, DNA and functional assays as well as computer generated data analysis.

## PBS 7415 Current Experimental Methods in Parasitology (1-4)

Prereq.: a course in parasitology or equivalent. May be taken for a max. of 4 sem. hrs. when animal groups vary. 2-8 hrs. lab. Specialized laboratory methods used to produce experimental infections, diagnose parasitism and recover and identify protozoan and helminth parasites of ruminants, horses, pigs and companion animals.

# PBS 7417 Pathogenesis of Infectious and Parasitic Agents (1-4)

*Prereq.: introductory course in immunology.* Introduction to the mechanisms of pathogenesis, pathology and host immune interactions of viral, bacterial and parasitic disease agents.

## PBS 7419 Population Dynamics and Ecology of Parasitic and Vector-Borne Diseases (3)

*Prereq.: course in parasitology or equivalent.* Population regulation and distribution of parasitic and vector-borne diseases of veterinary and medical significance; disease risk in populations and control strategies based on population models, transmission dynamics, climate, nutrition, immunity, geographic information systems and herd health programs.

## PBS 7424 Diseases of Aquatic Animals (3)

Same as RNR 7424. Prereq.: consent of instructor. Basic microbiology and/or parasitology strongly recommended. 2 hrs. lecture; 2 hrs. lab.

## PBS 7501 Veterinary Cellular Pathology (3)

*Prereq.: DVM degree or equivalent and consent of instructor.* Basic mechanisms of pathogenesis and morphogenesis of disease at the cellular level; encompasses ultrastructural to functional pathologic changes in cells and extracellular matrix.

# PBS 7502 Advanced Systemic Veterinary Pathology (5)

*Prereq.: DVM degree or equivalent and credit or concurrent enrollment in PBS 7516.* Study of diseases by organ systems, using electron and light microscopy; pathogenesis of specific diseases.

## PBS 7508 Histopathology Slide Conference (1)

*Prereq.: DVM degree or equivalent and consent of instructor. May be taken for a max. of 4 hrs. of credit when topics vary.* Histopathological aspects of diseases in various animal species; direct student participation in morphological description and literature review.

## PBS 7509 Surgical Pathology (1-2)

*Prereq.: DVM degree or equivalent and PBS 7516. May be taken for a max. of 6 sem. hrs. credit when topics vary.* Gross and microscopic examination of surgery-derived specimens of diseased tissues from various animals; clinical case interpretation, histopathological description, diagnosis, prognosis and consultation techniques.

### PBS 7514 Laboratory Animal Pathology (2)

*Prereq.: DVM degree or equivalent and consent of instructor.* Macroscopic, microscopic and pathogenetic study of the infectious, nutritional, degenerate and toxic diseases that affect the commonly used species of laboratory rodents, rabbits and primates.

## PBS 7515 Veterinary Dermatopathology (2)

*Prereq.: DVM degree or equivalent and PBS 7516. 1 hr. lecture; 2 hrs. lab.* Histopathological evaluation of integumentary system, tissue response and diseases of various animal species of veterinary importance.

# PBS 7516 Advanced Diagnostic Pathology of Animals (1-2)

*Prereq.: DVM degree or equivalent. May be taken for a max. of 6 sem. hrs. of credit when topics vary.* Necropsy of various animals submitted for postmortem examination: gross, light and electron microscopy; and

immunohistochemistry; correlation and synthesis of clinical information, anatomical findings and other ancillary laboratory results, for an accurate determination of disease diagnosis and pathogenesis.

# PBS 7525 Advanced Veterinary Clinical Pathology (1-2)

*Prereq.: DVM degree or equivalent. May be taken for a max. of 6 sem. hrs. of credit when topics vary.* Diagnosis and pathogenesis of hematological and clinical chemistry changes in blood from various animal species; understanding the applicable instrumentation and methodologies of assays and quality assurance; interpretation of cytological specimens (tissue and fluids) and correlation with clinical and histopathological findings.

### PBS 7530 Laboratory Animal Science I (2)

*Prereq.: DVM degree or equivalent and consent of instructor.* Biology, husbandry, diseases, medical care, regulations and experimental uses of the commonly used laboratory animal species; courses need not be taken in sequence.

### PBS 7531 Laboratory Animal Science II (2)

*Prereq.: DVM degree or equivalent and consent of instructor.* Biology, husbandry, diseases, medical care, regulations and experimental uses of the commonly used laboratory animal species; courses need not be taken in sequence.

## **Petroleum Engineering**

# PETE 1010 Introduction to Petroleum Engineering (2)

*Prereq.: MATH 1021.* Scientific bases of petroleum geology and chemistry, exploration, drilling, production, reservoir engineering and refining.

#### PETE 2031 Reservoir Rock Properties (3)

*Prereq.: MATH 1552, GEOL 1001 and PHYS 2110.* Physical properties of reservoir rock related to the production of oil and gas.

#### PETE 2032 Reservoir Fluid Properties (3)

*Prereq.: credit or registration in PHYS 2112.* Physical and chemical properties of petroleum reservoir fluids related to production of oil and gas.

# PETE 2034 Rock and Fluid Properties Laboratory (1)

Prereq.: credit in PETE 2031 and/or PETE 2032 and registration in the other course. 3 hrs. lab.

# PETE 2060 Computational Methods in Petroleum Engineering (2)

*Prereq.: MATH 1552. 1 hr. lecture; 2 hrs. lab.* Computing infrastructure, programming fundamentals, numerical methods and petroleum engineering commercial software.

#### PETE 3025 Economic Aspects of Petroleum Production (3)

Prereq.: ECON 2030, PETE 2060 and credit or registration in IE 3302. Registration in this course is restricted to students admitted to both the College of Engineering and the Petroleum Engineering major. Mineral ownership and leasing in Louisiana; production decline curve analysis; profitability analysis; risk analysis; evaluation of petroleum properties.

### PETE 3036 Well Logging (3)

Prereq.: grade of "C" or better in PETE 2031 and either EE 2950 or PHYS 2113. Registration in this course is restricted to students admitted to both the College of Engineering and the Petroleum Engineering major or have senior status in Geology & Geophysics. Qualitative and quantitative formation evaluation by means of electric, acoustic and radioactive well logs.

### PETE 3037 Petroleum Field Operations (1)

Prereq.: CE 2200 and credit or registration in ME 3333. Registration in this course is restricted to students admitted to both the College of Engineering and the Petroleum Engineering major. 3 hrs. lab. Field operations associated with production engineering; field equipment and operation; pneumatic and electronic safety systems; fluid flow measurements.

## PETE 3050 Reservoir Dynamics (3)

Credit will not be given for this course and PETE 4050. Prereq.: PETE 2031, PETE 2032, MATH 2065, CE 2200, and credit or registration in ME 3333. Registration in this course is restricted to students admitted to both the College of Engineering and the Petroleum Engineering major. Fundamentals of reservoir flow; application to single-well performance; well testing, gas reservoir engineering; waterflooding fundamentals.

# PETE 3053 Petroleum Engineering Aspects of Subsurface Geology (3)

Prereq.: PETE 2031 or senior status in geology. Registration in this course is restricted to students admitted to both the College of Engineering and the Petroleum Engineering major. Engineering aspects of petroleum geology; interpretation of subsurface data; reservoir mapping; determination of reservoir volume.

#### PETE 3085 Well Performance and Production (3)

Prereq.: PETE 3050. Registration in this course is restricted to students admitted to both the College of Engineering and the Petroleum Engineering major. Systems analysis applied to oil and gas wells; artificial lift design; fluid measurement; design of surface production equipment.

#### PETE 3990 Independent Research (1-2)

May be taken for a max. of 3 sem. hrs. of credit. Number of hours, outline of proposed work and name of faculty supervisor must be stated at time of registration. Registration in this course is restricted to students admitted to both the College of Engineering and the Petroleum Engineering major. Individual research or engineering studies with faculty supervision.

### PETE 4045 Drilling Engineering (3)

Prereq.: PETE 4060, CE 2200 and credit or registration in CE 3400. Registration in this course is restricted to students admitted to both the College of Engineering and the Petroleum Engineering major. Drilling process, including equipment and performance; well pressure control and buoyancy; rheology, circulation pressure and optimum hydraulics of drilling fluids; oil well casing design and cementing techniques.

#### PETE 4046 Well Design-Production (3)

Prereq.: PETE 4045 and CE 3400. Registration in this course is restricted to students admitted to both the College of Engineering and the Petroleum Engineering major. Analysis and design of well production systems; rod pumping, gas lift.

#### PETE 4050 Reservoir Dynamics (3)

Credit will not given for this course and PETE 3050. Prereq.: PETE 2032, ME 3333 and MATH 2065. Registration in this course is restricted to students admitted to both the College of Engineering and the Petroleum Engineering major. Fundamentals of reservoir flow; application to single-well performance; well testing, gas reservoir engineering; waterflooding fundamentals.

## PETE 4051 Reserve Estimation and Reservoir Management (3)

Prereq.: PETE 3025, PETE 3036, PETE 3053, and IE 3302. Registration in this course is restricted to students admitted to both the College of Engineering and the Petroleum Engineering major. Quantitative study and behavior prediction of volumetric and water-drive reservoir systems by material balance.

## PETE 4056 Numerical Simulation of Improved Recovery Processes (3)

Prereq.: MATH 2065 and PETE 3050 and PETE 4051. Registration in this course is restricted to students admitted to both the College of Engineering and the Petroleum Engineering major. Use of computer simulation to predict oil and gas reservoir performance and to design enhanced recovery processes.

#### PETE 4058 Reservoir Mechanics Laboratory (1)

Prereq.: PETE 3050. Registration in this course is restricted to students admitted to both the College of Engineering and the Petroleum Engineering major. 3 hrs. lab. Simulation of reservoirs with physical models; fluid flow in porous media.

### PETE 4059 Drilling Fluids Laboratory (1)

Prereq.: credit or registration in PETE 4045. Accompanies PETE 4045. Registration in this course is restricted to students admitted to both the College of Engineering and the Petroleum Engineering major. 3 hrs. lab.

# PETE 4060 Prevention of Oil and Gas Well Blowouts (1)

Prereq.: CE 2200. Registration in this course is restricted to students admitted to both the College of Engineering and the Petroleum Engineering major. 3 hrs. lab. Causes and detection of well kicks and the proper handling of these kicks to prevent uncontrolled flow (blowout) from the well; methods and techniques currently used in the oil and gas industry.

#### PETE 4083 Secondary Recovery of Petroleum (3)

Prereq.: PETE 4050 and PETE 4051. Registration in this course is restricted to students admitted to both the College of Engineering and the Petroleum Engineering major. Reservoir mechanics and application of immiscible fluids displacement methods to secondary recovery of oil.

## PETE 4084 Fluid Flow and Heat Transfer in Wellbores (3)

*Prereq.: MATH 2065, CE 2200, ME 3333 or consent of instructor.* Multiphase flow in pipes and wells; flow pattern description and mechanistic modeling; wellbore heat transfer; case studies.

# PETE 4085 Surface Handling of Produced Fluids (3)

Prereq.: PETE 2032 and PETE 2034. Registration in this course is restricted to students admitted to both the College of Engineering and the Petroleum Engineering major. Operating principles and design criteria for equipment used in field processing of oil and gas, e.g., lean oil gasoline plants, gas dehydration units, gas sweetening units, cryogenic gasoline plants, separators, gas transmission and compression facilities.

#### PETE 4086 Well Design-Drilling (3)

Prereq.: PETE 4045. Registration in this course is restricted to students admitted to both the College of Engineering and the Petroleum Engineering major. Design of drilling operations; bit selection and evaluation; mathematical modeling of bitwear and penetration rate; determination of formation pore pressure and fracture pressure; selection of well casing and casing setting depths; directional drilling; special design considerations for horizontal wells.

# PETE 4087 Environmental Control in Petroleum Engineering (3)

Prereq.: PETE 4045, PETE 4051 and PETE 4059. Registration in this course is restricted to students admitted to both the College of Engineering and the Petroleum Engineering major. Environmental impact and pollution mechanisms in petroleum engineering technologies; basic concepts regarding oilfield waste generation, toxicity and environmental regulatory process; synergy between process productivity and environmental performance.

### PETE 4088 Formation Evaluation (3)

Prereq.: PETE 3036. Registration in this course is restricted to students admitted to both the College of Engineering and the Petroleum Engineering major. Use of different formation evaluation techniques to provide a comprehensive description of reservoir content producibility; drilling fluid and cutting analysis; core analysis; formation tester; drillstem test; analysis of openhole logs by overlay, crossplot and digital evaluation methods.

### PETE 4089 Natural Gas Engineering (3)

Prereq.: PETE 4050. Registration in this course is restricted to students admitted to both the College of Engineering and the Petroleum Engineering major. Application of reservoir engineering principles and practices to gas and gas-condensate reservoirs; prediction of gas well performance; management of all types of gas reservoirs; underground gas storage.

#### PETE 4090 Unconventional Reservoirs (3)

*Prereq.: CE 3400 or consent of instructor.* Drilling, completion, production and reservoir evaluation of unconventional reservoirs; case studies.

# PETE 4241 Special Topics in Petroleum Engineering Design (3)

Prereq.: senior or graduate standing and permission of instructor. May be taken for a max. of 6 hrs. credit when topics vary. Registration in this course is restricted to students admitted to both the College of Engineering and the Petroleum Engineering major. One or more phases of current petroleum engineering design.

#### PETE 4998 Senior Project I (1)

*Prereq.: ENGL 2000, PETE 3037 and credit or registration in either PETE 4045 or PETE 4051. Written and oral presentation required.* First phase of theoretical and/or experimental investigations of an approved topic in petroleum engineering.

#### PETE 4999 Senior Project II (1)

Prereq.: PETE 4998 and senior standing in the College of Engineering. Written and oral presentation required. Registration in this course is restricted to students admitted to both the College of Engineering and the Petroleum Engineering major. Theoretical and/or experimental investigation, including a literature review of an approved topic in petroleum engineering.

#### **PETE 7195 Reservoir Characterization (3)** See GEOL 7195.

#### PETE 7201 Fluid Flow in Porous Media (3)

*Prereq.: PETE 4050 and PETE 4056 or equivalent.* General hydrodynamic equations for flow of fluids through porous media; two-dimensional flow problems and potential theory methods; gravity flow systems; two-fluid systems; systems of nonuniform permeability; multiple well systems using computerized streamline tracking methods.

# PETE 7202 Advanced Well Testing Theory and Analysis (3)

*Prereq.: PETE 4050 and PETE 4051 or equivalent.* Unsteady-state flow of reservoir fluids in porous media; application of theory to pressure buildup analysis, well interference testing, pulse testing, pressure draw down analysis, drill stem testing and water influx prediction.

### PETE 7211 Production System Analysis (3)

*Prereq.: CE 2200, ME 3333, and PETE 4046 or equivalent.* Use of multiphase flow correlations to determine flow rates and pressure traverses in flowing oil wells, gas-condensate wells, gathering systems and pipe lines; applications of correlations to the design of gas lift systems.

#### PETE 7212 Well Completion Design (3)

*Prereq.: PETE 4046 or consent of instructor.* Systems analysis for optimum production by designing best combination of tubing, flow lines, choke sizes, perforation density and separator pressure; inflow performance of reservoirs; well completion techniques; gravel packing; tubing effects.

#### PETE 7214 Petroleum Geomechanics (3)

*Prereq.: permission of instructor.* Fundamentals of rock mechanics; theory of elasticity and failure mechanics; borehole stresses and acoustic wave propagation; poroelasticity theory and applications including borehole stability, sand production, hydraulic fracturing, reservoir compaction and/or subsidence.

## PETE 7231 Nonthermal Methods of Enhanced Oil Recovery (3)

Theory and field practice related to miscible displacement processes and chemical and polymer flooding techniques.

### PETE 7232 Thermal Methods of Oil Recovery (3)

Theory of heat transfer and heat generation applied to the performance prediction of oil recovery by such field processes as forward and reverse in situ combustion, continuous and cyclic hot fluid injection, and production well heating.

## PETE 7241 Selected Topics in Advanced Petroleum Engineering (3)

May be repeated for credit when topic varies; a total of 12 sem. hrs. of credit may be earned in this course.

## PETE 7242 Selected Topics in Advanced Petroleum Engineering (3)

May be repeated for credit when topic varies; a total of 12 sem. hrs. of credit may be earned in this course.

## PETE 7256 Special Problems in Petroleum Engineering (1-6)

*May be taken for a max. of 6 sem. hrs. of credit.* Individual study and research.

# PETE 7280 Mathematical Simulation of Petroleum Reservoir Performance (3)

*Prereq.: PETE 4056 or equivalent and PETE 4050 and PETE 4051.* Development and application of mathematical models for predicting petroleum reservoir performance, including multiphase fluid flow in three dimensions.

### PETE 7285 Statistical Reservoir Modeling (3)

*Prereq.: permission of instructor.* Theory and practice of modeling uncertainty; spatially variable rock properties for subsurface reservoirs; distributions, transforms, Beyesian updating, variograms/correlograms, estimation and coestimation with various kriging methods, conditional simulation.

### PETE 7999 Seminar (1)

Pass/Fail grading. All graduate students are expected to attend this course every semester. Only 1 sem. hr. of credit will be allowed towards the degree.

## PETE 8000 Thesis Research (1-12 per sem.)

"S"/"U"grading.

**PETE 9000** Dissertation Research (1-12 per sem.) *"S"/"U"grading.* 

## Philosophy

### PHIL 1000 Introduction to Philosophy (3)

[LCCN: CPHL 1013, Introduction to Philosophy] This is a General Education course. *Credit will not be given for both this course and PHIL 1001*. Major works on such themes as appearance and reality, human nature, nature of knowledge, relation of mind and body, right and good, existence of God and freedom and determinism.

# PHIL 1001 HONORS: Introduction to Philosophy (3)

This is a General Education course. Same as PHIL 1000, with a special honors emphasis for qualified students. Credit will not be given for both this course and PHIL 1000.

### PHIL 1021 Introduction to Logic (3)

[LCCN: CPHL 2113, Introduction to Logic] This is a General Education course. *No special background presupposed.* Formal and informal reasoning; introduction to propositional logic; formal and informal fallacies; scientific reasoning.

### PHIL 2000 Contemporary Moral Problems (3)

Philosophical study of contemporary moral problems such as capital punishment, preferential treatment, sexual equality, sexual liberation, terrorism, war and nuclear arms, animal rights, world hunger, environmental ethics, and the morality of suicide.

## PHIL 2010 Symbolic Logic I (3)

This is a General Education course. *Also offered as LING* 2010. Classical propositional and first-order predicate logic; syntax and semantics of formal languages; translation between formal languages and English; formal methods of proof.

## PHIL 2018 Professional Ethics (3)

This is a General Education course. Special problems of obligation and valuation related to law, medicine, politics, and education, as well as business, engineering, and architecture; altruism, trust, vocation, codes of honor, professional privilege and responsibilities for others arising from differential abilities.

### PHIL 2020 Ethics (3)

[LCCN: CPHL 2013, Introduction to Ethics] This is a General Education course. *Credit will not be given for this course and PHIL 2050*. Classical and recent theories of obligation and value, including works of philosophers such as Plato, Aristotle, Kant, Hume and Nietzsche; topics including freedom, rights, justification of moral judgments.

### PHIL 2021 Environmental Thought (3)

Also offered as ENVS 2021. The relationship between humans and the natural environment: ethical and scientific considerations. Topics may include: the environment through human history, the development of environmental science, ethical obligations to non-human animals, environmental protection and pollution.

#### PHIL 2022 Philosophy and Popular Culture (3)

May be taken for a max. of 6 sem. hrs. of credit when topics vary. Philosophical themes in works of popular culture from television, film, science fiction, fantasy, comic books and/or music.

### PHIL 2023 Philosophy of Art (3)

Philosophical theories of beauty, art and art criticism.

#### PHIL 2024 Philosophy in Literature (3)

This is a General Education course. Philosophical themes in world literature: fiction, poetry, drama and autobiography.

### PHIL 2025 Bioethics (3)

Defining health and disease; deciding on rights, duties and obligations in the patient-physician relationship; abortion and the concept of a person; defining and determining death; euthanasia and the dignity of death; allocation of medical resources, both large-scale and small-scale; experimentation with fetuses, children, prisoners and animals; genetic testing, screening and interference.

#### PHIL 2028 Philosophy of Religion (3)

This is a General Education course. See REL 2028.

## PHIL 2029 Ethics and New Weapons Technologies (3)

Ethical issues raised by recent advancements in military and weapons technologies.

# PHIL 2033 History of Ancient and Medieval Philosophy (3)

This is a General Education course. An honors course, PHIL 2053, is also available. Credit will not be given for this course and PHIL 2053. Introduction to philosophy through a study of some of the main writings of classical and medieval philosophy.

# PHIL 2034 HONORS: Tutorial in Ancient and Medieval Philosophy (1)

To be taken concurrently with PHIL 2033. 1 hr. of tutorial instruction per week for honors students.

### PHIL 2035 History of Modern Philosophy (3)

This is a General Education course. *An honors course, PHIL 2036, is also available.* Introduction to philosophy through a study of some of the main writings of modern philosophy.

# PHIL 2036 HONORS: Tutorial in Modern Philosophy (1)

To be taken concurrently with PHIL 2035. 1 hr. of tutorial instruction per week for honors students.

#### PHIL 2050 HONORS: Ethics (3)

This is a General Education Course. *Same as PHIL 2020* with a special emphasis for qualified students. Credit will not be given for this course and PHIL 2020. Supervised reading, discussion, research, and writing.

# PHIL 2053 HONORS: History of Ancient and Medieval Philosophy (3)

This is a General Education course. Same as PHIL 2033 with a special honors emphasis for qualified students. Prereq.: one general education course in philosophy or permission of instructor. Credit will not be given for this course and PHIL 2033. Supervised reading, discussion, research and writing.

#### PHIL 2745 Knowledge and Reality (3)

Introduction to central epistemological and metaphysical questions: mind and matter; causation and free will; space and time; meaning and truth; the nature of knowledge and justified belief; perception, memory, reasoning and testimony as sources of knowledge and justified belief.

# PHIL 2786 History & Philosophy of Science, Technology, and Mathematics (3)

*Prereq.: completed analytical reasoning area of general education or consent of instructor.* The relationship between science, technology, mathematics, philosophy, and human values, as exemplified by important episodes from their histories.

#### PHIL 3001 Existentialism (3)

Basic themes of existentialist philosophy; the works of Kierkegaard, Nietzsche, Jaspers, Heidegger, Camus, Marcel and Sartre.

#### PHIL 3002 Philosophy and Film (3)

Films as philosophical texts.

## PHIL 3003 French Existentialism (3)

Major themes, issues and theories of the French existentialist; existence, essence and the question of Being; death, nothingness and anxiety; freedom, responsibility and values; the ethical and the other; authors include Jean-Paul Sartre, Simone De Beauvoir, Maurice Merleau-Ponty; Albert Camus, Emmanuel Levinas, Jean Beaufret, Gabriel Marcel, Emmanuel Mounier.

## PHIL 3020 Special Topics in Philosophy (1-3)

May be taken twice for credit when topics vary.

#### PHIL 3052 Moral Philosophy (3)

*May be taken twice when topics vary.* Topics in ethics and meta-ethics: egoism, consequentialism, deontology, moral relativism, virtue ethics, values, ethics and religion; naturalistic fallacy, truth and justification, realism and objectivity, motivation and practical reasoning, autonomy and game theory.

#### PHIL 3062 Introduction to Political Philosophy (3)

Fundamental concepts and theories that deal with justice and liberties of individuals, entitlements and distributive justice, the role and limit of State power.

### PHIL 3072 Philosphy of Rawls (3)

A close examination of some of the key texts in the political philosophy of John Rawls.

#### PHIL 3090 Friedrich Nietzsche (3) See GERM 3090.

## PHIL 3950 Introduction to Epistemology (3)

Survey of central issues in the theory of knowledge; knowledge as justified true belief; the Gettier problem; induction as a source of justification; a priori knowledge; fallibilist vs. infallibilist and internalist vs externalist conceptions of justification; structure of justification.

## PHIL 4002 Philosophy of Film (3) Theories of Film.

#### PHIL 4003 Contemporary French Philosophy (3)

Major contemporary French philosophers, including Bergson, Sartre, Merleau-Ponty, De Beauvoir, Levinas, Derrida, Foucault, Nancy Ricoeur, Marion, Janicaud; themes such as the rethinking of ethics, the question of humanism and political thought; intellectual movements such as structuralism and post-structuralism, phenomenology, hermeutics and deconstruction, feminism and psychoanalysis.

#### PHIL 4010 Symbolic Logic II (3)

Also offered as LING 4010. Prereq.: PHIL 2010/LING 2010 or consent of instructor. Syntax and basic model theory of classical first order logic; soundness and completeness.

### PHIL 4011 Topics in Advanced Logic (3)

Also offered as LING 4011. Prereq.: PHIL 4010/ILING 4010 or consent of instructor. Topics may include advanced metatheory of symbolic languages, intensional logics and Montague grammar.

#### PHIL 4098 Politics and Ethics (3)

See POLI 4098.

#### PHIL 4786 Selected Topics (3)

May be taken for a max. of 6 sem. hrs. when topics vary.

#### PHIL 4914 Philosophy of Language (3)

Also offered as LING 4914. Prereq.: one logic course or consent of instructor. Various theories of meaning, their implications and presuppositions and their relevance to issues in such areas as theory of perception, theory of truth, metaphysics, ethics, philosophy of mind and action.

#### PHIL 4922 Plato (3)

*Prereq.: PHIL 2033 or equivalent.* Topics from Plato's epistemology and metaphysics.

#### PHIL 4924 Aristotle (3)

*Prereq.: PHIL 2033 or equivalent.* Topics from Aristotle's Metaphysics, Physics, De Anima and the logical treatises.

#### PHIL 4928 Medieval Philosophy (3)

*Also offered as REL 4928.* Analysis of key themes, traditions and figures in medieval philosophy.

#### PHIL 4933 Locke, Berkeley, Hume (3)

Language, epistemology, ontology, self, God, causation, realism and idealism in the writings of these British empiricists.

#### PHIL 4935 Kant (3)

*Prereq.: PHIL 2035 or equivalent.* Basic topics and arguments of Kant's Critique of Pure Reason.

#### PHIL 4936 19th Century Philosophy (3)

*Prereq.*: PHIL 2033 and PHIL 2035 or equivalent. 19th century philosophy, with emphasis on German thought; readings in Fichte, Hegel, Marx, Nietzsche, Bergson and others.

### PHIL 4939 Kierkegaard (3)

Also offered as REL 4939. Study of his works, such as, Either/Or, The Sickness Unto Death, Fear and Trembling, Concluding Unscientific Postscript, Stages on Life's Way and The Present Age.

#### PHIL 4940 Aesthetics (3)

Meaning and truth in the arts; artistic intention; critical canons.

#### PHIL 4941 Philosophy of Mind (3)

*Prereq.: PHIL 2033 and PHIL 2035 or equivalent.* Recent philosophical treatments of human nature; the mind-body problem; identity of the person in time; the person as rational and volitional; and relation of the person to the world.

### PHIL 4942 Topics in Meta-Ethics (3)

Prereq.: two courses in philosophy or consent of instructor. May be taken for a max. of 6 sem. hrs. of credit when topics vary. Naturalistic fallacy, truth and meaning, realism an objectivity, motivation and practical reasoning, autonomy and justification of ethical theory.

#### PHIL 4943 Problems in Ethical Theory (3)

Prereq.: two courses in philosophy or consent of instructor. May be taken for a max. of 6 sem. hrs. of credit when topics vary. Egoism, utilitarianism, deontological systems, intuitionism, moral particularism, virtue ethics, relativism, weakness of will and value theory.

#### PHIL 4945 Problems in Political Philosophy (3)

*Prereq.: PHIL 1000 or PHIL 2020 or PHIL 3052 or equivalent.* Freedom, obligation, authority, justice, law, the state and revolution.

#### PHIL 4946 Philosophy of Law (3)

Core philosophical issues in legal theory and jurisprudence.

#### PHIL 4947 Topics in Philosophy of Law (3)

Applied issues in philosophy of law, including philosophical analysis of Supreme Court rulings.

## PHIL 4948 Phenomenology (3)

*Prereq.: PHIL 2035 or equivalent.* Contemporary phenomenology; readings in Husserl.

#### PHIL 4949 Topics in Philosophy of Gender (3)

Prereq.: permission of instructor. May be taken for a max. of 6 sem. hrs. of credit when topics vary.

Philosophical analysis of issues of sex, gender, sexuality, or feminism.

#### PHIL 4950 Advanced Epistemology (3)

Topics may include naturalized epistemology, internalism vs. externalism about justification; a priori knowledge; justification and truth; skepticism, Bayesian approaches to justification, contextualist theories of knowledge and the possibility of non-inferential justification.

#### PHIL 4951 Philosophy of Science (3)

*Prereq.: consent of instructor.* Philosophical issues related to concept formation and theory construction in the natural, behavioral and social sciences.

#### PHIL 4952 Topics in Metaphysics (3)

May be taken for a max. of 6 sem. hrs. of credit when topics vary. Topics include ontology, modalities, universals, truth, causation, reductionism, identity (physical and personal), realism and the meaning of life.

#### PHIL 4953 Contemporary Analytic Philosophy (3)

*Prereq.: one logic course and either PHIL 2035 or PHIL 4933.* Topics from leading philosophers in such contemporary movements as logical empiricism, formalism and ordinary language analysis, including readings from Moore, Russell, Wittgenstein, Carnap, Goodman, Ryle, Strawson and Quine.

### PHIL 4954 Recent Speculative Philosophy (3)

*Prereq.: Two other philosophy courses or consent of instructor.* Theories of being and knowing in recent absolute idealism, process philosophy and phenomenological existentialism.

#### PHIL 4955 Philosophy of Biology (3)

Philosophical issues raised by evolutionary theory and the life sciences.

#### PHIL 4972 Kant's Moral Philosophy (3)

Study of selected Kant's works in moral philosophy such as, Groundwork of the Metaphysic of Morals, Metaphysics of Morals, *Critique of Practical Reason* and *Anthropology From A Pragmatic Point of View*.

# PHIL 4991 Independent Reading and Research (1-3)

Prereq.: written consent of instructor and department. May be taken for a max. of 6 hrs. of credit when topics vary. Total credit earned as a graduate student in PHIL 4991 and PHIL 7991 combined may not exceed 9 hrs.

## PHIL 7901 Seminar in Contemporary Analytic Philosophy (3)

Philosophy of language, metaphysics, realism, anti-realism and philosophy of logic and mathematics.

#### PHIL 7903 Seminar in Continental Philosophy (3)

Major figures and/or movements in continental philosophy.

## PHIL 7905 Seminar in History of Philosophy (3)

May be taken for a max. of 9 hrs. of credit when topics vary. Study of a major philosopher or school of philosophy.

### PHIL 7910 Seminar (3)

Prereq.: May be offered as LING 7910 when topic is appropriate. May be taken for a max. of 6 hrs. of credit when topics vary.

## PHIL 7991 Independent Reading and Research (1-6)

Prereq.: written consent of instructor and departmental director of graduate studies. Total credit earned as a graduate student in PHIL 4991 and PHIL 7991 combined may not exceed 9 sem. hrs.

## PHIL 8000 Thesis Research (1-12 per sem.)

"S"/"U"grading.

## **Physical Science**

#### PHSC 1001 Physical Science (3)

[LCCN: CPHY 1023, Physical Science I] This is a General Education course. *Prereq.: MATH 1021. Credit will not be given for both this course and any other college-level physics course.* First half of a two-semester survey course in the physical sciences; topics in the first semester are taken primarily from the field of physics.

### PHSC 1002 Physical Science (3)

[LCCN: CPHY 1033, Physical Science II] This is a General Education course. *Prereq.: PHSC 1001. Credit will not be given for both this course and any other collegelevel astronomy course.* Second half of a two-semester survey course in the physical sciences; topics in the second semester are taken primarily from the fields of astronomy, chemistry and geology.

### PHSC 1021 Physical Science with Laboratory (3)

Prereq.: MATH 1021 or MATH 1029. Credit will not be given for this course and PHSC 1001. 2 hrs. lecture; 2 hrs. lab. Exposition of physical science concepts through laboratory investigations; topics such as nature of matter, forces and motion, electricity and magnetism and sound.

#### PHSC 1022 Physical Science with Laboratory (3)

Prereq.: MATH 1021 or MATH 1029. Credit will not be given for this course and PHSC 1001. 2 hrs. lecture; 2 hrs. lab. Exposition of physical science concepts through laboratory investigations; topics such as changes in matter, light and color, energy and observational astronomy.

## **Physics**

Prerequisites - All prerequisites in physics courses should be rigidly observed.

Corequisites - A student may not continue in a course after dropping a corequisite course prior to the last day of the midsemester examination period.

# PHYS 1201 General Physics for Physics Majors (4)

This is a General Education course. *Prereq.: credit or registration in MATH 1550 or MATH 1551. Primarily for students intending to major in physics. Credit will not be given for this course and PHYS 2001, PHYS* 2110, PHYS 2112. *4 hrs. lecture/demonstration.* Fundamentals of classical physics and some concepts of modern physics; calculus and vector analysis introduced and used in development of subject matter.

## PHYS 1202 General Physics for Physics Majors (4)

This is a General Education course. *Prereq.: PHYS 1201* and credit or registration in MATH 1552 or MATH 1553. *Primarily for students intending to major in physics. Credit* will not be given for this course and PHYS 2002 or PHYS 2113. 4 hrs. lecture/demonstration. Fundamentals of classical physics and some concepts of modern physics; calculus and vector analysis introduced and used in development of subject matter.

#### PHYS 1208 General Physics Laboratory for Physics Majors (1)

Prereq.: credit or registration in PHYS 1201. Credit will not be given for this course and PHYS 2108. Laboratory to accompany PHYS 1201. 3 hrs. lab.

# PHYS 1209 General Physics Laboratory for Physics Majors (1)

Prereq.: credit or registration in PHYS 1202. Credit will not be given for this course and PHYS 2109. Laboratory to accompany PHYS 1202. 3 hrs. lab.

#### PHYS 2001 General Physics I (3)

[LCCN: CPHY 2113, 2114, Physics I (Algebra/Trig Based)] This is a General Education course. *Prereq.: MATH 1022 or MATH 1023* or MATH 1550 or MATH 1551. *Credit will not be given for this course and PHYS 1201, PHYS 2110, PHYS 2112*. Mechanics, heat, sound, light, electricity and magnetism; topics in modern physics.

#### PHYS 2002 General Physics II (3)

[LCCN: CPHY 2123, 2124, Physics II (Algebra/Trig Based)] This is a General Education course. *Prereq.: PHYS* 2001 and MATH 1022 or MATH 1023 or MATH 1550 or MATH 1551. *Credit will not be given for this course and PHYS 1202 or* PHYS 2112, PHYS 2113. *3 hrs. lecture/demonstration.* Mechanics, heat, sound, light, electricity and magnetism; topics in modern physics.

### PHYS 2108 Introductory Physics Laboratory (1)

[LCCN: CPHY 2111, 2114, 2131, Physics I Lab (Algebra/Trig Based), (Calculus Based)] *Prereq.: credit or registration in PHYS 2001 or PHYS 2110. Credit will not be given for both this course and PHYS 1208. Laboratory to accompany PHYS 2001 or PHYS 2110.* 

### PHYS 2109 General Physics Laboratory (1)

[LCCN: CPHY 2121, 2124, 2141, Physics II Lab (Algebra/Trig Based), (Calculus Based] *Prereq.: PHYS* 2108 and credit or registration in PHYS 2002 or PHYS 2113. Credit will not be given for both this course and PHYS 1209. Laboratory to accompany PHYS 2002 and PHYS 2113. Electricity, magnetism, geometrical and physical optics and other topics in modern physics.

#### PHYS 2110 Particle Mechanics (3)

[LCCN: CPHY 2133, Physics I (Calculus Based)] This is a General Education course. Credit will not be given for this course and PHYS 2001 and PHYS 1201. Prereq.: grade of "C" or better in MATH 1550; credit or registration in MATH 1552 or MATH 1553. Vectors, forces and motion, Newton's Laws, conservation of energy and momentum, rotational kinematics and dynamics, equilibrium and elasticity, oscillations.

## PHYS 2112 Fluids, Thermodynamics, Waves, and Modern Physics (3)

[LCCN: CPHY 2143, Physics II (Calculus Based)] This is a General Education course. *Credit will not be given for this course and PHYS 2001 and PHYS 1201. Prereq.: grade of "C" or better in PHYS 2110 and MATH 1552 or MATH 1553.* Fluids, oscillations and waves, thermodynamics, modern physics.

# PHYS 2113 Fields: Gravity, Electricity, and Magnetism (3)

[LCCN: CPHY 2153, Physics III (Calculus Based)] This is a General Education course. *Credit will not be given for this course and PHYS 2002 and PHYS 1202. Prereq.: grade of "C" or better in PHYS 2110 and MATH 1552 or MATH 1553.* Gravitation and electromagnetism, gravitational fields, electric and magnetic fields, currents and circuits, induction, Maxwell's Equations.

### PHYS 2203 Introductory Modern Physics (3)

*Prereq.: PHYS 1202 or PHYS 2112, PHYS 2113.* Elementary modern physics; special relativity, wave/particle duality, quantum mechanics, hydrogen atom, many-electron atoms, nuclear structure elementary particles, solid state, astrophysics and cosmology.

#### PHYS 2207 Introductory Modern Physics Laboratory (1)

Prereq.: PHYS 1209. Coreq.: PHYS 2203. For physics majors only. Laboratory to accompany PHYS 2203. 3 hrs. lab.

#### PHYS 2221 Introduction to Mechanics (3)

Prereq.: MATH 2057; PHYS 1202 or both PHYS 2112 and PHYS 2113.

Basic concepts of mechanics with emphasis on corresponding mathematical techniques.

### PHYS 2231 Electricity and Magnetism (3)

*Prereq.: PHYS 2221 or CHEM 4581 and credit or registration in MATH 2065 or MATH 2090.* Electricity and magnetism; static and quasistatic electromagnetic fields in vacua and in dielectric and magnetic media.

# PHYS 2401 Introduction to Concepts in Physics (3)

[LCCN: CPHY 1013, Introduction to Concepts in Physics] This is a General Education course. *Prereq.: MATH 1021 or an ACT math score of at least 25. Primarily for students in liberal arts and education.* Historical evolution and underlying philosophy of principles of physics; provides appreciation of physics; does not develop technical skill.

#### PHYS 2411 Computational Science I (3)

Prereq.: CSC 1253 or equivalent and one of the following three choices: PHYS 2221; or MATH 2057 and PHYS 1202 or both PHYS 2112 and PHYS 2113; or CHEM 4581 and credit or registration in MATH 2065 (or MATH 2090). 2 hrs. lecture; 2 hrs. lab. Introduction to symbolic manipulation and numerical techniques used to analyze or simulate a broad range of physical systems.

#### PHYS 2995 Undergraduate Seminar (1)

*Prereq.: consent of instructor and department chair. May be repeated for a max. of 6 hrs. of credit.* Individual reading in current areas of physics, topics in professional development and presentation of undergraduate research.

# PHYS 3098 Instrumentation Electronics for Scientists (3)

Prereq.: PHYS 1202 or both PHYS 2112 and PHYS 2113; PHYS 2207; CSC 1253 or equivalent. For physics majors only. 2 hrs. lecture; 3 hrs. lab. Basic electronic technology and circuits used in scientific instrumentation; circuit analysis, discrete components, operational amplifiers, digital electronics and microcontrollers.

## PHYS 4005 Science Research Methods (3)

See BIOL 4005.

## PHYS 4112 Intermediate Mathematical Physics (3)

*Prereq.: PHYS 2221 or CHEM 4581 and credit or registration in MATH 2065 or MATH 2090.* Mathematical methods of physics, with application to selected problems.

### PHYS 4123 Intermediate Mechanics (3)

*Prereq.: PHYS 2221 and MATH 2057.* Lagrangian mechanics; central force motion; rigid body dynamics; small oscillations.

# PHYS 4125 Thermodynamics and Statistical Mechanics (3)

*Prereq.: PHYS 2203 or CHEM 3491; PHYS 2221 or CHEM 4581; credit or registration in MATH 2065 or MATH 2090.* Basic physical concepts and methods appropriate for description of systems involving many particles; unified view point of thermodynamics, statistical mechanics and kinetic theory.

# PHYS 4132 Electromagnetism and Electromagnetic Waves (3)

Prereq.: PHYS 2231. Continuation of PHYS 2231. Emphasis on electromagnetic waves and radiation.

## PHYS 4135 Modern Optics (3)

*Prereq.: PHYS 2221 and MATH 2065 or MATH 2090; or CHEM 4581 and MATH 2065 or MATH 2090.* Review of geometrical optics and optical instruments, scalar diffraction theory, spatial filtering and holography, Gaussian beam optics, optical resonators, lasers and optical properties of materials.

# PHYS 4141 Introduction to Quantum Mechanics (3)

Prereq.: PHYS 2221 and credit or registration in MATH 2065 or MATH 2090; or CHEM 4581 and credit or registration in MATH 2065 or MATH 2090. Elementary principles of quantum mechanics, including Schrodinger equation, one-dimensional problems, harmonic oscillator, angular momentum, perturbation theory, matrix mechanics and spin.

# PHYS 4142 Introduction to Quantum Mechanics (3)

*Prereq.: PHYS 4141.* Elementary principles of quantum mechanics, including Schrodinger equation, onedimensional problems, harmonic oscillator, angular momentum, perturbation theory, matrix mechanics and spin.

## PHYS 4261 Introduction to Solid-State Physics (3)

*Prereq.: PHYS 2203 or PHYS 4141.* Properties of the crystalline state and the free-electron; band theories of metals, insulators and semiconductors.

## PHYS 4271 Subatomic Physics (3)

*Prereq.: PHYS 2203 or PHYS 4141.* Nuclear and particle properties, abundance and stability of nuclei, strong, weak and electromagnetic forces, nuclear instrumentation, particle accelerators and detectors, nuclear reactions and particle and nuclear astrophysics.

## PHYS 4398 Undergraduate Research (1-3)

Prereq.: consent of instructor and department chair. May be taken for a max. of 6 sem. hrs. credit. Recommended for students who will take PHYS 4399. Research project conducted under supervision of individually selected faculty member.

### PHYS 4399 Senior Thesis (3)

*Prereq.: consent of instructor and department chair. Students should consider taking PHYS 4398 as preparation for this course.* Individual research project conducted and reported under supervision of individually selected faculty member.

### PHYS 4750 Special Topics in Physics (3)

Prereq.: consent of instructor. May be taken for a max. of 6 sem. hrs. credit if topics vary.

## PHYS 4991 Special Problems in Physics (1-3)

Prereq.: thorough knowledge of the fundamentals of physics and mathematics, demonstrated ability in science and consent of instructor and department chair. May be taken for a max. of 6 sem. hrs. credit. Individual reading and theoretical and/or experimental work on advanced problems in physics.

## PHYS 4995 Undergraduate Senior Seminar (1)

Prereq.: consent of instructor and department chair. For junior and senior students. May not be taken concurrently with PHYS 2995. May be repeated for a max. of 4 hrs. of credit. Individual reading in current topics, professional development, presentations of research articles and student research projects.

#### PHYS 6121 Classical Physics for Teachers (3)

*Prereq.: PHYS 2002 or both PHYS 2112 and PHYS 2113. For high school and junior college teachers; part of the MNS degree program.* Application of conservation principles to development of classical physics.

#### PHYS 6198 Laboratory Methods for Teachers (3)

Prereq.: PHYS 2002 or both PHYS 2112 and PHYS 2113. May be taken for a max. of 9 hrs. of credit. For high school and junior college teachers; part of the MNS degree program. 1 hr. lecture; 6 hrs. lab. Analysis of laboratory experiments in current high school physics curricula; selected experiments in modern physics.

## PHYS 6991 Seminar in Current Developments in Physics Curriculum Materials (1-3)

Prereq.: PHYS 2002 or both PHYS 2112 and PHYS 2113. For high school and junior college teachers; part of the MNS degree program. May be taken for a max. of 6 sem. hrs. credit.

# PHYS 7211 Mathematical Methods of Theoretical Physics (3)

*Prereq.: PHYS 4112 or equivalent.* Advanced topics in mathematical methods of theoretical physics; mathematical foundations of quantum mechanics.

# PHYS 7212 Mathematical Methods of Theoretical Physics (3)

*Prereq.: PHYS 7211.* Advanced topics in mathematical methods of theoretical physics; mathematical foundations of quantum mechanics.

### PHYS 7221 Classical Mechanics (3)

Offered in Su Study of particle mechanics and rigid body mechanics using the methods of Lagrange's equations, Hamilton's equations, canonical transformations and Hamilton-Jacobi theory.

### PHYS 7225 Statistical Mechanics (3)

Principles of classical and quantum statistics, with application to special problems.

### PHYS 7231 Classical Electrodynamics (3)

Problems in electrostatics and magnetostatics; Maxwell's equations, electromagnetic waves, wave guides, and antennas; relativistic electrodynamics and radiation from moving charges.

#### PHYS 7232 Classical Electrodynamics (3)

*Prereq.: PHYS 7231 is prerequisite for 7232.* Problems in electrostatics and magnetostatics; Maxwell's equations, electromagnetic waves, wave guides, and antennas; relativistic electrodynamics and radiation from moving charges.

#### PHYS 7241 Quantum Mechanics (3)

*Prereq.: PHYS 4142 or equivalent.* Basic concepts of nonrelativistic quantum mechanics, operators and matrices, intrinsic and orbital angular momenta, perturbation theory, atomic structure, second quantization and scattering theory.

#### PHYS 7242 Quantum Mechanics (3)

*Prereq.: PHYS 7241.* Basic concepts of nonrelativistic quantum mechanics, operators and matrices, intrinsic and orbital angular momenta, perturbation theory, atomic structure, second quantization and scattering theory.

## PHYS 7336 General Relativity (3)

General tensor analysis; postulates of general relativity, field equations, equations of motion, interior and exterior Schwarzchild solutions; cosmology.

## PHYS 7343 Advanced Quantum Mechanics (3)

*Prereq.: PHYS 7242.* The Lorentz group, relativistic wave equations, introduction to quantum field theory.

## PHYS 7347 Quantum Information Theory (3)

Classical and quantum methods for data compression and communication over channels; measurement theory and entropy.

#### PHYS 7348 Quantum Computation (3)

Turing machines, classical and quantum models of computation, NP-completeness, theorems and algorithms for quantum computation.

#### PHYS 7353 Atomic and Optical Physics I (3)

*Prereq.: PHYS 7242* Applications of quantum mechanics to atomic systems and their interaction with radiation; spectral levels, photo-absorption and collisions with charged particles.

## PHYS 7354 Atomic and Optical Physics II (3)

*Prereq.: PHYS 7353.* Applications of quantum mechanics to atomic systems and their interaction with radiation; spectral levels, photo-absorption and collisions with charged particles.

### PHYS 7360 Low-Temperature Physics (3)

Properties of matter at temperatures near absolute zero; methods of producing low temperatures; superfluidity of liquid helium, superconductivity, magnetic effects and adiabatic demagnetization.

### PHYS 7363 Condensed Matter Physics (3)

*Prereq.: PHYS 7225 and PHYS 7242.* Application of quantum mechanics and statistical mechanics to condensed matter; lattice vibrations, energy bands in crystals, transport properties, collective excitations, ferromagnetism and superconductivity; theory of Fermi and Bose quantum fluids, phase transitions and critical phenomena.

### PHYS 7364 Condensed Matter Physics (3)

*Prereq.: PHYS 7363.* Application of quantum mechanics and statistical mechanics to condensed matter; lattice vibrations, energy bands in crystals, transport properties, collective excitations, ferromagnetism and superconductivity; theory of Fermi and Bose quantum fluids, phase transitions and critical phenomena.

#### PHYS 7373 Nuclear Physics (3)

*Prereq.: PHYS 4271 and PHYS 7241.* Applications of quantum mechanics to the two-nucleon system, to a system of many nucleons and to nuclear reactions, with comparisons between theory and experimental results.

## PHYS 7383 High Energy Particle Physics (3)

*Prereq.: PHYS 7231 and PHYS 7242.* Strong electromagnetic and weak interactions of hadrons and leptons, including symmetries and selection rules; quantum chromodynamics and electroweak theory; accelerator and nonaccelerator experiments including cosmic rays and high energy astrophysics.

#### PHYS 7398 Graduate Laboratory (3)

*1 hr. lecture; 6 hrs. lab.* Practical experience in modern experimental physics laboratory techniques.

## PHYS 7411 Computational Physics (3)

*Prereq.: PHYS 7211.* Basic numerical techniques for solution of mathematical equations, including coupled linear algebraic and differential equations and numerical simulation techniques; emphasis on application to physical problems.

### PHYS 7412 Computational Physics (3)

*Prereq.: PHYS 7411.* Basic numerical techniques for solution of mathematical equations, including coupled linear algebraic and differential equations and numerical simulation techniques; emphasis on application to physical problems.

# PHYS 7463 Theoretical Condensed Matter Physics (3)

*Prereq.: PHYS 7242.* Density functional theory of electronic structure, mean field and renormalization group theory of phase transitions; linear response theory; quantum transport, Landau theory of Fermi liquids; systems of strongly interacting electrons, superconductivity.

## PHYS 7464 Theoretical Condensed Matter Physics (3)

*Prereq.: PHYS 7463.* Density functional theory of electronic structure, mean field and renormalization group theory of phase transitions; linear response theory; quantum transport, Landau theory of Fermi liquids; systems of strongly interacting electrons, superconductivity.

## PHYS 7537 Radiation Interactions and Transport (3)

Same as MEDP 7537. Prereq.: PHYS 2203 or equivalent, CSC 2262 or equivalent.

# PHYS 7538 Monte Carlo Simulation of Radiation Transport (3)

Same as MEDP 7538.

## PHYS 7741 Stellar Astrophysics (3) See ASTR 7741.

PHYS 7742 Stellar Astrophysics (3) Prereq.: PHYS 7741 is prerequisite for PHYS 7742. See ASTR 7742.

## PHYS 7745 Advanced Quantum Theory of

Particles and Fields (3)

May be taken for a max. of 9 hrs. of credit.

#### **PHYS 7751 Galactic Astrophysics (3)** See ASTR 7751.

#### PHYS 7752 Galactic Astrophysics (3)

*Prereq.: PHYS 7751 is prerequisite for PHYS 7752.* See ASTR 7752.

## PHYS 7777 Seminar in Astronomy and Astrophysics (1-6)

May be taken for a max. of 6 sem. hrs. of credit. See ASTR 7777.

# PHYS 7783 Topics in Astronomy and Astrophysics (3)

May be taken for a max. of 6 hrs. of credit when topics vary. See ASTR 7783.

### PHYS 7857 Graduate Student Seminar (1)

*Pass-fail grading. May be repeated for credit.* Introduction to research areas in the department; training for presentation of scientific talks; preparation of research proposals.

#### PHYS 7893 Many-Body Theory (3)

*Prereq.: PHYS 7242. Pass-fail grading. May be taken for a max. of 6 hrs. of credit.* Diagrammatic techniques, thermal Green's functions, transport theory, Fermi liquids, collective excitations, phase transitions.

## PHYS 7895 Selected Topics in Advanced Physics (3)

Pass-fail grading. May be repeated for credit.

### PHYS 7896 Current Developments (3)

Pass-fail grading. May be repeated for credit.

## PHYS 7996 Independent Research in Physics (3)

*Prereq.: permission of department.* An approved independent research project in experimental or theoretical physics; final written report and an oral presentation to a faculty committee is required.

PHYS 8000 Thesis Research (1-12 per sem.) "S"/"U"grading.

PHYS 9000 Dissertation Research (1-12 per sem.) "S"/"U"grading.

## **Plant Health**

#### PLHL 3000 Pest Management Internship (3)

Offered in Su *Also offered as ENTM 3000. Prereq.: written consent of advisor. May be taken for a max. of 6 sem. hrs. credit.* Work experience in an agricultural or urban pest management industry or in a pest management research area culminating in acceptable written reports.

#### PLHL 3002 Pest Management Seminar (1)

Also offered as ENTM 3002. Prereq.: PLHL 3000 or ENTM 3000. Review and discussion of internship experiences including topics in agricultural pest management and urban entomology; development of professional skills.

#### PLHL 3060 Introductory Plant Physiology (4)

Also offered as BIOL 3060. Prereq.: BIOL 1202 and BIOL 1209; CHEM 2060, CHEM 2261 or CHEM 2461. 3 hrs. lecture; 3 hrs. lab. Life processes of plants.

# PLHL 3900 Undergraduate Research in Plant Pathology (1-3)

*Prereq.: PLHL 4000 or equivalent and consent of instructor. May not be repeated for credit.* Research experience for students contemplating graduate study in plant pathology.

#### PLHL 3960 Undergraduate Research in Crop Physiology and Weed Science (1-3)

Prereq.: PLHL 3060 or equivalent and consent of instructor. May be taken for a max. of 6 sem. hrs. of credit. Research experience for students contemplating graduate study in crop physiology or weed science.

#### PLHL 4000 General Plant Pathology (4)

*Prereq.: BIOL 1201 and BIOL 1208 or equivalent. 3 hrs. lecture; 3 hrs. lab.* Nature and cause of disease in plants; relation of environment and host-parasite interactions to development of disease symptoms caused by plant pathogenic fungi, bacteria, viruses, mycoplasms and nematodes; abiotic causes of disease; methods of disease control; diseases affecting Louisiana crops and ornamentals.

# PLHL 4001 Plant Disease Management and Control (3)

*Prereq.: PLHL 4000 and either CHEM 2060 or CHEM 2261. 2 hrs. lecture; 2 hrs. demonstration/lab.* Plant disease management and control using cultural practices, disease resistance, biological control, legislation, therapy, pesticides; identity, properties, chemistry, mode of action, toxicity and application of fungicides, bactericides and nematicides; evaluation of chemicals for plant disease control.

## PLHL 4018 Forest Insects and Diseases (4) See ENTM 4018.

#### PLHL 4054 Introductory Mycology (4)

Same as BIOL 4054. Prereq.: BIOL 1202 and BIOL 1209. 3 hrs. lecture; 3 hrs. lab.

### PLHL 4444 Seed Physiology (3)

Also offered as BIOL 4444. Prereq.: BIOL 1201, BIOL 1208 and 1402 and either CHEM 2060 or CHEM 2261. BIOL 3060 recommended. Introduction to the life processes of Seeds: their development, germination, dormancy, ecology, vigor and viability.

## PLHL 7000 Phytonematology (4)

Prereq.: PLHL 4000. 2 hrs. lecture; 4 hrs. lab. Taxonomy, identification and control of plant parasitic nematodes.

## PLHL 7010 Plant Molecular Biology (3)

Also offered as BIOL 7010. Prereq.: BIOL 3060, BIOL 4093 and BIOL 4094; or equivalent. Molecular biology, biochemistry and genetics of higher plants and plantassociated microorganisms; genome organization and structure in nuclei, chloroplasts and mitochondria; structure and expression of plant genes under control of developmental and environmental signals; plant interactions with pathogenic and symbiotic microorganisms.

#### PLHL 7011 Phytobacteriology (4)

*Prereq.: PLHL 4000, BIOL 2051. 3 hrs. lecture; 3 hrs. lab.* Taxonomy, biology, mechanisms of pathogenesis; control of prokaryotic plant pathogens.

#### PLHL 7040 Plant Virology (4)

*Prereq.: PLHL 4000 and PLHL 7063 or equivalent. 2 hrs. lecture; 4 hrs. lab.* Viruses as causal agents of plant diseases; biological, chemical and physiological properties of plant viruses; methods of transmission; host-virus and vector-virus relationship.

# PLHL 7051 Advanced Topics in Plant Pathology (1-4)

*Prereq.: consent of instructor. May be taken for a max. of 8 sem. hrs. of credit.* 

#### PLHL 7052 Seminar (1)

*May be taken for a max. of 3 hrs. of credit for each graduate degree.* Topics announced prior to registration.

#### PLHL 7061 Plant Growth and Development (3)

Also offered as BIOL 7061. Prereq.: BIOL 3060 or PLHL 3060 and BIOL 4093; or equivalent. Effects of naturally occurring growth substances and environmental conditions on plant growth.

#### PLHL 7063 Plant Metabolism (3)

Also offered as BIOL 7063. Prereq.: PLHL 3060 or equivalent. Major metabolic systems of plants and their control.

# PLHL 7067 Selected Topics in Plant Physiology (2)

Same as BIOL 7067. Prereq.: consent of instructor. May be repeated for credit. Mineral nutrition, metabolism, growth and development and herbicides.

## PLHL 7080 Host-Parasite Interaction and Disease Resistance (3)

*Prereq.: PLHL 4000 and PLHL 7063 or equivalent. 2 hrs. lecture; 2 hrs. lab.* Genetics, physiology and biochemistry of disease development and disease resistance in plants; mechanisms of pathogenicity and infectivity, tumorigenesis, metabolic consequences of infection, nature of disease resistance and parasitism.

### PLHL 7082 Soilborne Plant Pathogens (3)

*Prereq.: PLHL 4000 or equivalent.* Physiology, ecology and pathology of soilborne plant pathogens; control strategies including cultural, biological and genetic; disease suppressive soils.

## PLHL 7083 Epidemiology and Crop Loss Assessment (3)

*Prereq.: PLHL 4000 and PLHL 4001 or equivalent.* Interactions between pathogen and host populations and the environment; measurement and prediction of disease spread and increase; disease management strategies; techniques to assess losses due to plant disease.

## PLHL 8000 Thesis Research (1-12 per sem.)

"S"/"U"grading.

#### PLHL 8800 Practicum in Plant Pathology (2)

Prereq.: consent of instructor. Pass/fail grading. May be taken for a max. of 6 sem. hrs. credit. 1 hr. lecture; 4 hours clinic/practicum. Faculty-supervised experiences in plant pathology research, disease diagnosis and control.

#### PLHL 8900 Special Research Problems (1-5)

*Prereq.: consent of instructor. May be taken for a max. of 9 sem. hrs. credit.* Faculty supervised, independent research other than thesis or dissertation.

PLHL 9000 Dissertation Research (1-12 per sem.)

"S"/"U"grading.

## **Political Science**

#### POLI 1001 Fundamental Issues of Politics (3)

This is a General Education course. *Credit will not be* given for this course and POLI 1002. Central questions at issue in politics; their significance.

## POLI 1002 Honors: Fundamental Issues of Politics (3)

Same as POLI 1001, with special honors emphasis for qualified students. Credit will not be given for this course and POLI 1001.

## POLI 2030 Civic Engagement, Youth and Media (3)

This is a General Education course. See MC 2030.

#### POLI 2051 American Government (3)

[LCCN: CPOL 2013, Introduction to American Govt] This is a General Education course. *An honors course, POLI* 2052, is also available. *Credit will not be given for this course and POLI* 2052. Principles, structures, processes and functions; emphasis on national government.

### POLI 2052 HONORS: American Government (3)

This is a General Education course. Same as POLI 2051, with special honors emphasis for qualified students. Credit will not be given for this course and POLI 2051.

# POLI 2053 Introduction to Comparative Politics (3)

[LCCN: CPOL 2213, Introduction to Comparative Govt] This is a General Education course. Survey of politics in democratic, post-communist and developing societies; emphasis on major actors and institutions.

#### POLI 2056 Government of Louisiana (3)

*Prereq.: POLI 2051 or equivalent.* State and local government and politics in Louisiana.

#### POLI 2057 Introduction to International Politics (3)

This is a General Education course. Basic principles, problems and concepts of international politics; evolution and nature of the nation-state; concepts of sovereignty, power and national interest; patterns of conflict and cooperation; foreign policies of the major powers.

#### POLI 2060 Introduction to Political Theory (3)

This is a General Education course. Basic concepts of analysis of normative and empirical political thought.

# POLI 2070 Public Policy Making: An Introduction (3)

Sequential process of policy making from problem identification through policy formulation, adoption, implementation and evaluation of impact; application to such areas as civil rights, welfare, urban affairs, taxation and government spending.

#### POLI 3000 HONORS: Thesis (3)

Culmination of political science honors program; details available from department.

#### POLI 3001 Approaches to the Study of Politics (3)

Surveys of ways political scientists try to generate knowledge about the political world.

## POLI 3003 Games and Strategy in Models of Politics (3)

Basic fundamentals of game theoretic analysis in political science.

#### POLI 3809 HONORS: Seminar (3)

Students not enrolled in the honors program may be admitted with consent of the instructor. Subject matter and instructor vary. Details available from the department during registration.

#### POLI 3896 HONORS: Readings Course (1-3)

Same as POLI 4996, with special honors emphasis for qualified students. Credit will not be given for this course and POLI 4996.

## POLI 3901 Undergraduate Internship in Political Science (1-6)

Open to undergraduate students approved by the Department of Political Science. May be counted toward the total number of hours required for a major in political science but not toward fulfilling field requirements. Program of study, research and work in governmental or private agencies concerned with public policy.

### POLI 3909 Contemporary Political Issues (3)

May be repeated for credit when topics vary. For undergraduate political science or other social sciences majors having a 2.70 overall average; also open to wellqualified students in other fields, by consent of department Course content depends on interests of instructor and class.

#### POLI 4000 Special Topics in American Politics (3)

Prereq.: consent of department. May be repeated for a max. of 6 sem. hrs. credit when topics vary.

## POLI 4001 Research Methods in Political Science (3)

Basic components of the research process in political science, including design and structure of research, modes of observation and techniques of analyzing data.

# POLI 4011 Bureaucracy, Politics and Public Policy (3)

*Prereq.: POLI 2051.* Interrelationships between bureaucracy and politics in formulation and execution of public policy; forces and forms affecting these relationships.

# POLI 4015 American State Politics and Policy Making (3)

*Prereq.: POLI 2051 or equivalent.* Politics and policy making in the American states; legal, cultural, socio-economic, political and institutional factors affecting the formulation, implementation and evaluation of American state public policies.

#### POLI 4017 Politics and Poverty Policy (3)

Examination of key policy considerations pertaining to the problems of poverty in the United States.

#### POLI 4020 American Constitutional Law (3)

*Prereq.: POLI 2051 or equivalent.* Law of the Constitution and place of the Supreme Court in the American political system; separation of powers, judicial review, federalism and federal powers.

## POLI 4021 The American Constitution and Civil Liberties (3)

*Prereq.: POLI 2051 or equivalent.* Political relevance of major federal constitutional limitations; property rights; First Amendment freedoms; rights of criminal defendants and ethnic minorities.

#### POLI 4023 Judicial Politics (3)

*Prereq.: POLI 2051.* Political role of U.S. state and federal courts; organization, staffing, financing; judicial policy making; public perception of the judicial process.

#### POLI 4026 Campaigns and Elections (3)

*Prereq.: POLI 2051 or equivalent.* Examination of campaigns and elections in the U.S. political system at the national, state and local levels.

#### POLI 4028 Gender and American Politics (3)

Also offered as WGS 4028. The role of gender in the political arena in the United States.

# POLI 4030 Political Attitudes and Public Opinion (3)

Beliefs and attitudes among the mass public; emphasis on attitude formation and change.

#### POLI 4031 Political Parties in the United States (3)

Structure and function of political parties at local, state and national levels; voting studies of presidential elections.

## POLI 4032 Interest Groups in American Politics (3)

Interest group politics; effect of voluntary organizations on political behavior.

#### **POLI 4034 Political Participation (3)**

Voting behavior, conventional participation and political protest and violence; political behavior and public policy.

#### POLI 4035 The Legislative Process (3)

*Prereq.: POLI 2051 or equivalent.* Legislative politics; emphasis on the U.S. Congress; effect of party, constituency and legislative institutions on legislative behavior and public policy; role of Congress in the American political system.

#### POLI 4036 The American Presidency (3)

*Prereq.: POLI 2051 or equivalent.* The presidency in the American political system; emphasis on process of presidential selection, evolving role of the president, politics of the executive apparatus of the presidency and presidential interaction with other political institutions and actors.

#### POLI 4039 Southern Politics (3)

Contemporary politics of the American South.

## POLI 4040 Special Topics in International

Relations (3)

Prereq.: consent of department. May be repeated for a max. of 6 sem. hrs. credit when topics vary.

#### POLI 4041 International Law (3)

*Prereq.: POLI 2057 or equivalent.* Development of international law; law of peace, war and neutrality; treaty law; recognition, war crimes, law enforcement, state responsibility and diplomatic immunities under the United Nations.

#### **POLI 4042 International Organization (3)**

Origins, development and future of international organization; emphasis on the United Nations.

#### POLI 4043 American Foreign Policy (3)

"National interest" as guiding consideration in development of American foreign policy from the beginning to the present; importance of the constitutional framework; presidential and congressional leadership; pressure groups and public opinion; changing world environment and American response.

# POLI 4044 The Contemporary International System (3)

*Prereq.: POLI 2057 or equivalent.* Developments and trends in the international system since World War II; classical and modern versions of the balance of power; bipolarity, multipolarity and other elements of systems theory; concept of deterrence and game theory; decision-making theory; integration theory; conflict and conflict-resolution theory.

### POLI 4045 International Terrorism (3)

Examination of the causes, consequences, and outcomes of international terrorism; historical roots and governmental responses to terrorism.

### POLI 4046 International Political Economy (3)

*Prereq.: POLI 2057 or equivalent.* Theories of international interdependence, dependence and integration; politics of decision making on protectionism and international finance; role of multinational corporations in world political economy; North-South debate; economic issues and national security.

# POLI 4047 Political Psychology in International Relations (3)

Cognitive personality and group psychology in international relations.

# POLI 4048 International Conflict and Cooperation (3)

Theories of international conflict, war and conflict resolution.

## POLI 4050 Globalization and Politics (3)

*Prereq.: POLI 2057 or equivalent.* Overview of the concepts, theories and empirical evidence associated with the emerging phenomenon known as globalization, with particular emphasis on its political, economic and cultural dimensions.

# POLI 4059 International Politics of the Middle East (3)

International relations among Middle Eastern countries, with special emphasis on the Arab-Israeli conflict, international terrorism and U.S. policy toward the region.

# POLI 4060 Special Topics in Comparative Politics (3)

*Prereq.: consent of department. May be taken for a max. of 6 sem. hrs. of credit when topics vary.* 

# POLI 4061 Comparative Politics of the Middle East (3)

Government and politics of Middle Eastern countries, with special emphasis on political institutions and processes, the role of Islam and women's conditions.

## POLI 4062 Comparative Political Economy (3)

*Credit will not be given for both this course and POLI* 7976. Cross-regional comparison on the interaction between politics and economics; topics include electoral business cycles, foreign trade, foreign investment, industrial policy and the environment.

### **POLI 4063 Comparative Political Institutions (3)**

*Credit will not be given for both this course and POLI* 7972. Comparative analysis of political institutions; emphasis on constitutional design, electoral and party systems, legislatures, cabinets and parliamentary and presidential structures.

# POLI 4064 Comparative Politics of Developing Areas (3)

Problems of development confronted by contemporary states and societies of the Third World; emphasis on role of ethnic pluralism, political parties, bureaucracies and the military.

# POLI 4065 Latin American Governments and Politics (3)

Governmental and political processes of Latin America; their contributions to modern government.

### POLI 4067 The Politics of Asia (3)

Governments and politics of modern Asia, with a focus on China; contemporary nationalism, political development, revolution and impact of communism, democracy and capitalism on Asian states.

#### POLI 4070 Russian Politics and Government (3)

Contemporary political institutions and policies of Russia; influence of internal forces, such as culture, ideology and social structure; political economic and social problems and policies.

# POLI 4072 Politics and Government of East Central Europe (3)

Political systems of the former communist states of Eastern Europe; domestic institutions and policies; legacies of communism; political parties and elections.

#### POLI 4074 Politics of the European Union (3)

The political, social, legal and economic unification of Europe.

#### POLI 4075 Politics of Western Europe (3)

National political systems of Western Europe.

# POLI 4076 The Politics of France and Francophone Areas (3)

The political development, institution and culture of the French Republic and selected Francophone areas.

#### POLI 4077 British Politics (3)

Contemporary British domestic politics and government; major institutions, actors, and processes of British politics.

#### POLI 4078 African Government and Politics (3)

Governmental and political processes of Africa; factors affecting governmental performance in modern Africa.

# POLI 4079 State, Society and Citizenship in Contemporary China (3)

Political events in contemporary China; emphasis on the state and the citizen in the Reform Era.

#### POLI 4080 American Political Thought (3)

Development of the American liberal-democratic tradition and dissent to that tradition.

## POLI 4081 History of Political Theory from Plato to More (3)

Ancient and medieval political thought.

## POLI 4082 History of Political Theory from Machiavelli to Nietzsche (3)

Early modern European political thought.

#### POLI 4090 Special Topics in Political Theory (3)

*Prereq.: consent of department. May be repeated for a max. of 6 sem. hrs. credit when topics vary.* 

### POLI 4096 Contemporary Political Theory (3)

Political thought from Nietzsche to present.

#### POLI 4097 Political Theology (3)

Also offered as REL 4097. An exploration of the relationship between theology and politics, from the ancient Greeks and Hebrews to contemporary political theologians; emphasis on the Judeo-Christian tradition, but the political theology of other religious traditions, such as Islam, Hinduism and Confucianism may be included.

#### POLI 4098 Politics and Ethics (3)

*Also offered as PHIL 4098.* Ethical theory and its application to politics, docamestic and international; ethical issues of public policy and conduct will be examined.

#### **POLI 4234 Studies in Literature and Politics (3)** See ENGL 4234

#### POLI 4996 Readings Course (1-3)

Prereq.: consent of department. An Honors course, POLI 3896, is also available. For junior, senior and graduate students in the social sciences with a 3.00 average. Credit will not be given for this course and POLI 3896. Individual reading in a specified field of political science.

#### POLI 4997 Readings Course (1-3)

Prereq.: consent of department. An Honors course, POLI 3896, is also available. For junior, senior and graduate students in the social sciences with a 3.00 average. Credit will not be given for this course and POLI 3896. Individual reading in a specified field of political science.

#### POLI 4998 HONORS: Directed Research (1-3)

Same as POLI 4996 and POLI 4997, with special emphasis for qualified students. Credit will not be given for this course and POLI 4996 and POLI 4997. Prereq.: consent of department.

### POLI 4999 HONORS: Thesis (3)

Culmination of political science honors program; details available from the department.

#### POLI 7000 Professional Development (1)

*Pass-fail grading.* Political scientist as teacher, researcher, citizen.

#### POLI 7900 Seminar in American Politics (3)

May be taken for a max. of 6 hrs. of credit when topics vary.

#### POLI 7902 Seminar in Public Policy (3)

*Also offered as PADM 7902.* Policymaking and administration in the American political system with an emphasis on the institutions of governance including their constitutional foundations; the political process of formulating, implementing, and evaluating public policy; and the public-private, intergovernmental, and international dynamics of policy.

#### POLI 7903 Special Topics in American Politics (3)

May be taken for a max. of 9 sem. hrs. of credit when topics vary.

# POLI 7915 Seminar in State Politics and Policy Making (3)

#### **POLI 7917 Program Evaluation (3)** See PADM 7917.

#### POLI 7920 Seminar in Public Law (3)

May be taken for a max. of 6 hrs. of credit when topics vary.

#### POLI 7930 Seminar in Political Behavior (3)

May be taken for a max. of 6 hrs. of credit when topics vary.

#### POLI 7935 Seminar in Legislative Politics (3)

May be taken for a max. of 6 hrs. of credit when topics vary.

#### POLI 7940 Seminar in International Politics (3)

May be taken for a max. of 6 hrs. of credit when topics vary.

#### POLI 7941 Special Topics in International Politics

May be taken for a max. of 9 sem. hrs. of credit when topics vary.

# POLI 7942 Seminar in Political Psychology in International Relations (3)

Advanced study of cognitive, personality, group and identity psychology in international relations.

# POLI 7946 Seminar in the Politics of International Economic Relations (3)

May be taken for a max. of 6 hrs. of credit when topics vary.

### POLI 7947 International Conflict (3)

Democratic peace, international terrorism, civil war, diversionary war and enduring rivalries, as well as current debates in the literature.

#### POLI 7961 Approaches to the Study of Politics (3)

# POLI 7962 Seminar in Research Design and Quantitative Techniques (3)

# POLI 7963 Advanced Research Methods in Social Science (3)

See SOCL 7203

## POLI 7964 Specialized Topics in Social Science Methods (2-3)

See SOCL 7213.

#### POLI 7970 Seminar in Comparative Politics (3)

May be taken for a max. of 6 sem. hrs. of credit when topics vary.

## POLI 7971 Special Topics in Comparative Politics (3)

May be taken for a max. of 9 sem. hrs. of credit when topics vary.

# POLI 7972 Seminar in Comparative Political Institutions (3)

*Credit will not be given for both this course and POLI* 4063. Advanced analysis of comparative political institutions, emphasis on constitutional design, electoral and party systems, legislatures and cabinets and parliamentary and presidential structures.

### POLI 7974 Seminar on the State and Society (3)

Focus on relations between the state and society; effects of social structure and social change on politics and the factors affecting political regimes and state capacity.

## POLI 7975 Seminar in Comparative Political Behavior (3)

Focus on individual level political phenomena and the relations to political institutions and social systems; topics include political culture and socialization, participation and protest, revolution and regime support, voting and voting behavior.

# POLI 7976 Seminar in Comparative Political Economy (3)

May be taken for a max. of 6 sem. hrs. of credit when topics vary. Credit will not be given for both this course and POLI 4062. Focus on the interaction between politics and economics; topics include models of development, economic performance and the impact of global economic forces on regional and domestic politics.

# POLI 7980 Seminar in American Political Thought (3)

May be taken for a max. of 6 hrs. of credit when topics vary.

## POLI 7981 Seminar in Classical and Medieval Political Theory (3)

May be taken for a max. of 6 hrs. of credit when topics vary.

# POLI 7982 Seminar in Early Modern Political Theory (3)

# POLI 7990 Political Theory: Interpretation and Analysis (3)

## POLI 7991 Special Topics in Political Theory (3)

May be taken for a max. of 6 sem. hrs. of credit when topics vary.

# POLI 7995 Seminar in Contemporary Political Theory (3)

May be taken for a max. of 6 hrs. of credit when topics vary.

#### POLI 7998 Readings Course (3)

May be taken for a max. of 6 hrs. of credit when topics vary.

#### POLI 7999 Readings Course (3)

May be taken for a max. of 6 hrs. of credit when topics vary.

POLI 8000 Thesis Research (1-12 per sem.) "S"/"U"grading.

**POLI 9000** Dissertation Research (1-12 per sem.) "S"/"U"grading.

## Psychology

## PSYC 2000 Introduction to Psychology (3)

[LCCN: CPSY 2013, Introduction to Psychology] This is a General Education course. *An honors course, PSYC 2001, is also available. Credit will not be given for this course and PSYC 2001.* Understanding, prediction and control of human behavior.

# PSYC 2001 HONORS: Introduction to Psychology (3)

This is a General Education course. *Same as PSYC 2000, with special honors emphasis for qualified students. Credit will not be given for this course and PSYC 2000.* 

# PSYC 2005 Introduction to the Psychology Major (1)

*Prereq.: Credit or registration in PSYC 2000 or PSYC 2001 or equivalent. This course is only offered online.* Introduction and orientation to the psychology major, including information about the psychology curriculum, selecting a career path, and graduate school options.

# PSYC 2016 Statistics for the Behavioral Sciences (4)

Prereq.: credit or registration in MATH 1021 or equivalent. Open to Psychology majors; open to other with permission of instructor. 3 hrs. lecture; 2 hrs. lab. Computation and elementary theory relating to basic statistical techniques; normal distribution, descriptive statistics, statistical inference, product moment correlations, simple rank order correlations, *t*-test, and simple analysis of variance.

## PSYC 2017 Research Methods in Psychology (4)

Prereq.: PSYC 2016 or equivalent and PSYC 2005. PSYC 2017 may not be taken concurrently with PSYC 2016. Senior college standing required. LSU and overall GPA of at least 2.50. Open to psychology majors; open to others with permission of instructor.

*3 hrs. lecture; 2 hrs. lab.* Techniques and logic underlying standard research methodology in psychology, with special emphasis on experimentation, literature research and writing empirical reports.

## PSYC 2040 Social Psychology (3)

[LCCN: CPSY 2413, Social Psychology] *Prereq.: 3 sem. hrs. of psychology or sociology.* Cultural forces affecting attitudes, social learning, perception and communication of individuals and groups.

## PSYC 2060 Educational Psychology (3)

[LCCN: CPSY 2613, Educational Psychology] Principles of learning, motivation, development and evaluation as related to the educative process.

# PSYC 2070 Developmental Psychology of the Life Span (3)

[LCCN: CPSY 2113, Developmental Psychology] *Prereq.: PSYC 2000 or equivalent.* Survey of developmental processes across the life span.

## PSYC 2076 Child Psychology (3)

[ICCN: CPSY 2313, Child Psychology] *Prereq.: PSYC* 2000 or *PSYC* 2060 or equivalent. Psychological and social development of the child.

## PSYC 2078 Adolescent Psychology (3)

[LCCN: CPSY 2213, Adolescent Psychology] *Prereq.: PSYC 2000 or PSYC 2060 or equivalent*. Adolescent behavior considered in terms of psychological, social and physical development.

# PSYC 2999 Undergraduate Practicum in Psychology (1-3)

Prereq.: PSYC 2000 or PSYC 2060, and consent of instructor; LSU and overall GPA of at least 2.50. May be taken for a max. of 3 sem. hrs. of credit. Student responsible for registering with a faculty member. Individually supervised experience in psychological laboratories and community agencies.

#### PSYC 3020 Psychological Tests and Measurements (3)

*Prereq.: PSYC 2000 or PSYC 2001 and a first course in statistics.* Test construction, standardization, validation; intelligence, clerical, mechanical, spatial aptitude tests; interest and personality tests; test batteries.

## PSYC 3030 Cognitive Psychology (3)

*Prereq.: PSYC 2000 or PSYC 2001.* A survey of the psychological approaches to understanding cognition. Topics include the processes and brain mechanisms involved in perception and attention, imagery, memory, language, creativity, problem solving, reasoning and decision-making.

# PSYC 3050 Introduction to Personnel and Industrial Psychology (3)

*Prereq.: PSYC 2000 or PSYC 2001.* Organizational psychology, leadership, job satisfaction, motivation; human relations psychology; human engineering psychology; personnel psychology; industrial, military and governmental selection, testing and inter-viewing; consumer psychology.

## PSYC 3081 Personality (3)

*Prereq.: PSYC 2000 or PSYC 2060 or equivalent.* Determinants and dynamics of personality; theory and research.

# PSYC 3082 Introduction to Abnormal Psychology (3)

*Prereq.: PSYC 2000 or PSYC 2060 or equivalent.* Abnormal personality and behavior disorders.

## PSYC 3083 Psychological Counseling (3)

*Prereq.: PSYC 2000 or PSYC 2060.* Concepts of psychological treatment in adjustment problems.

## PSYC 3140 Advanced Social Psychology (3)

*Prereq.: PSYC 2040 or equivalent.* Current theories of socialization; existing methodologies and interdisciplinary influences.

## PSYC 4005 Psychology Capstone (1)

Prereq.: Credit or registration in PSYC 2017 and PSYC 4008 or equivalent; LSU and overall GPA of at least 2.50. Open to psychology majors; open to others with permission of instructor. This course is only offered online. Review of prominent topics in the Psychology and guidance towards applying for jobs and graduate school.

## PSYC 4008 History of Modern Psychology (3)

Prereq.: PSYC 2000 or PSYC 2001 and 6 additional hrs. of psychology; LSU and overall GPA of at least 2.50. Open to psychology majors; open to other matriculated students with permission of instructor. Historical survey of psychology, with reference to schools of psychology.

#### PSYC 4030 Psychology of Thinking and Decision-Making (3)

*Prereq.: PSYC 2000 or PSYC 2060.* Experimental methods and research findings on human thinking, decision-making, comprehension, choice behavior and problem solving.

#### **PSYC 4031 Sensory and Perceptual Processes (3)**

*Prereq.: PSYC 2000 and PSYC 2017; or equivalent.* Theories, data and procedures in sensation and perception.

### PSYC 4032 Psychology of Learning (3)

*Prereq.: PSYC 2000 or PSYC 2001.* Behavior from the standpoint of learning; recent experimental literature in the learning area; major theories of learning.

# PSYC 4033 Psychology of Memory and Forgetting (3)

*Prereq.: PSYC 2000 or PSYC 2001.* Major theoretical concepts; review of experimental literature in the field of memory and forgetting.

## PSYC 4034 Physiological Psychology (3)

*Prereq.: PSYC 2000 or PSYC 2060 or equivalent.* Functioning of the nervous system with respect to sensation, perception, learning and motivation.

## PSYC 4035 Drugs, the Brain and Behavior (3)

*Prereq.: PSYC 2000 or consent of instructor.* Modes of action of drugs on the brain and behavioral effects of therapeutic drugs and drugs of abuse.

### PSYC 4037 Neuropharmacology (3)

*Prereq.: PSYC 2000 or PSYC 2001. Primarily for students in psychology and basic sciences.* Basic pharmacology; neurochemical and physiological mechanisms of drug actions on the nervous system; pharmacology of drugs of abuse and psychiatric medications.

## PSYC 4039 Madness and Medicine (3)

*Prereq.: PSYC 2000 or PSYC 2001.* The history of medical treatments for mental disorders.

## PSYC 4040 Research and Theory in Sexuality (3)

*Prereq.: PSYC 2000 or PSYC 2060 and one additional course in psychology or KIN 2600.* Sexual behavior viewed from different theoretical perspectives; emphasis on empirical sexual research literature.

## **PSYC 4041 Cognitive Neuroscience (3)**

*Prereq.: PSYC 2000.* Critical topics in human neuroscience: emphasis on neural mechanisms underlying human cognition.

## PSYC 4042 Psychology of Emotion (3)

*Prereq.*: PSYC 2000 or PSYC 2001 or equivalent. Exploring the nature and function of human emotion by inquiring into the composition, purpose, and import of emotion in our daily lives.

## **PSYC 4070 Developmental Psychology (3)**

*Prereq.: PSYC 2000 or PSYC 2001.* Theories of development, contemporary issues and research findings at successive ages of human development; psychological changes throughout the lifespan.

# PSYC 4072 Developmental Psychology of Adulthood and Aging (3)

*Prereq.: PSYC 2000 or PSYC 2060.* Theories, issues, and research findings on psychological changes occurring throughout adulthood and later life.

### PSYC 4080 Applied Behavior Analysis (3)

*Prereq.: PSYC 2000.* Methods, analysis and intervention in the application of basic learning principles; emphasis on school applications.

### **PSYC 4111 Intermediate Statistics (3)**

Prereq.: PSYC 2000 or PSYC 2001 and EXST 2201 or equivalent. LSU and overall GPA of at least 2.50. Preparatory for graduate study in statistics and research design in psychology. Open to psychology majors; open to other students with permission of instructor. Emphasis on inferential statistics and hypothesis testing; familiarization with common statistical analysis software and interpretation of output; major topics include simple and factorial analysis of variance, linear and multiple correlation and regression.

## PSYC 4176 Advanced Child Psychology (3)

*Prereq.: PSYC 2000 or PSYC 2001 and 3 additional hrs. of psychology.* Psychological theories of child development, child behavior and research methodology.

## PSYC 4999 Independent Reading and Research in Psychology (1-6)

Prereq.: LSU and overall GPA of at least 2.50 and consent of instructor. May be taken for a max. of 6 sem. hrs. credit. Open to seniors and graduate students. Student responsible for registering with a faculty member and selecting an area of reading or research.

## PSYC 7020 Measurement of Behavior (3)

*Prereq.: PSYC 4111 or equivalent; graduate standing in psychology or consent of instructor.* Techniques and theories of behavior measurement; problems of data collection; reliability, validity, design and analysis of measurement instruments for the psychological sciences.

## PSYC 7030 Cognitive Basis of Behavior (3)

Prereq.: graduate standing in psychology or other matriculated graduate students with consent of instructor. Cognitive processes involved in memory, language, decision-making; role of cognitive variables in controlling behavior.

## PSYC 7034 Biological Basis of Behavior (3)

*Prereq.: graduate standing in psychology or other matriculated graduate students with consent of instructor.* Selected biological systems involved in mediation of behavior.

### PSYC 7040 Social Basis of Behavior (3)

Prereq.: graduate standing in psychology or other matriculated graduate students with consent of instructor. Social, organizational and cultural influences on human behavior; research in social and organizational psychology.

## PSYC 7060 Ethical, Legal and Professional Issues in School Psychology (3)

*Prereq.: graduate standing in psychology or consent of instructor.* Roles and functions of the school psychologist; ethical considerations across diverse roles and settings; legal bases for the practice of school psychology and students' rights; currently accepted standards for the credentialing of school psychologists and standards for practice.

#### **PSYC 7111 Advanced Statistics (3)**

*Prereq.: PSYC 4111 or equivalent; graduate standing in psychology or consent of instructor.* Machine calculation, coding, measures of cen-trality and variation, regression, correlation, prediction, probability, statistical inference, analysis of variance, multi-variate techniques for the psychological sciences.

#### **PSYC 7117 Methodology and Research Design (3)**

*Prereq.: PSYC 4111 or PSYC 7111; graduate standing in psychology or consent of instructor.* Scientific approach to psychological questions, research, design and methodology; logic and philosophy underlying psychological theory and research; social psychology of the psychological experiment; experimental and quasi-experimental designs; problems in observation and measurement of behavioral variables; methodological and philosophical considerations in analysis of data.

#### PSYC 7125 Psychological Assessment I (3)

*Prereq.: graduate standing in clinical or school psychology or consent of instructor.* Clinical assessment techniques including individual tests of intelligence, mental status examination, interviewing and behavioral assessment; procedures for both children and adults.

#### **PSYC 7165 Psychoeducational Assessment (3)**

*Prereq.: graduate standing in clinical or school psychology or consent of instructor.* Instruction and practicum in administration and interpretation of individually administered intellectual assessment measures and diagnostic achievement techniques.

## PSYC 7171 Developmental Disorders and Psychopathology of Children (3)

*Prereq.: graduate standing in clinical or school psychology or consent of instructor.* Theories, research and contemporary issues related to normal and problem behaviors of children.

#### PSYC 7185 Behavior Therapy (3)

*Prereq.: graduate standing in clinical or school psychology or consent of instructor.* Modern treatment and assessment procedures based on learning theories; behavioral analysis and theoretical orientations as applied to a wide variety of clinical disorders.

#### PSYC 7625 Psychological Assessment I Practicum (3)

Prereq.: Credit or registration in PSYC 7125 or equivalent, graduate standing in clinical or school psychology or consent of instructor. Introduction to the practical aspects associated with the use of psychological measures. An emphasis is placed on gaining competency in the administration, scoring, and interpretation of measures of intellectual functioning, academic achievement, and personality functioning.

#### **PSYC 7660 School Psychological Consultation (3)**

*Prereq.: graduate standing in psychology or consent of instructor.* Instruction and practicum that provide psychological consultation on short-term behavior and academic problems for teachers and other school personnel.

#### PSYC 7668 Practicum in School Psychology (1-6)

Prereq.: admission to doctoral program in school psychology. Pass-fail grading. May be taken for a max. of 6 sem. hrs. of credit. Closely supervised experience in schools in which students perform psychoeducational assessments, consult with teachers and function as members of multidisciplinary teams; cases include children with specific learning disabilities, behavior disorders and mental retardation.

#### PSYC 7669 Practicum in School Psychology (1-6)

Prereq.: admission to doctoral program in school psychology. Pass-fail grading. May be taken for a max. of 6 sem. hrs. of credit. Closely supervised experience in schools in which students perform psychoeducational assessments, consult with teachers and function as members of multidisciplinary teams; cases include children with specific learning disabilities, behavior disorders and mental retardation.

#### PSYC 7688 Practicum in Clinical Psychology (1-3)

*Prereq.: consent of instructor and enrollment in clinical psychology training program. 12 sem. hrs. are required.* Supervised experience in the application of clinical psychological assessment and intervention techniques with behaviorally disordered populations (adult, child, medical).

#### PSYC 7689 Practicum in Clinical Psychology (1-3)

*Prereq.: consent of instructor and enrollment in clinical psychology training program. 12 sem. hrs. are required.* Supervised experience in the application of clinical psychological assessment and intervention techniques with behaviorally disordered populations (adult, child, medical).

#### PSYC 7690 Teaching of Psychology Practicum (1-3)

Prereq.: PSYC 7990. Course May be taken for a max. of 4 sem. hrs. of credit. Closely supervised experience in teaching in which students will function as the instructor of record for an undergraduate course in the Psychology department; objectives include enhanced teaching skills and the development of a philosophy of teaching.

### PSYC 7925 Psychological Assessment II (3)

*Prereq.: PSYC 7125 or equivalent; graduate standing in clinical psychology or consent of instructor.* Administration and interpretation of objective and projective tests of personality and psychopathology; neuropsychological assessment techniques.

# PSYC 7927 Psychotherapy and Behavior Change (3)

*Prereq.: graduate standing in clinical psychology or consent of instructor.* Theoretical and empirical considerations relevant to psychoanalytic, humanistic, behavioral and cognitive-behavioral approaches for treating disordered behavior.

# PSYC 7929 Cultural Diversity Issues in Counseling and Therapy (3)

*Prereq.: graduate standing in clinical psychology or consent of instructor.* Issues of individual and cultural diversity training including definitions of multicultural counseling, historical perspectives, various theories and critical/ethical issues regarding counseling of diverse populations. Practical strategies of service delivery and current research will be reviewed.

# PSYC 7938 Seminar in Experimental Psychology (3)

May be taken for a max. of 12 hrs. of credit when topics vary.

## PSYC 7939 Seminar in Experimental Psychology (3)

May be taken for a max. of 12 hrs. of credit when topics vary.

## PSYC 7946 Theories and Concepts of Behavior Analysis (3)

*Prereq.: graduate standing in psychology or consent of instructor.* This seminar is designed to provide a survey of the theoretical and experimental foundations of the practice of applied behavior analysis. Readings are selected to enhance students' understanding of the basic principles of learning and behavior, to highlight areas of basic-oriented research which have been useful in the development of applied practices and to identify areas which may be capable of informing applied practice, but for which research has not yet bridged the gap.

## PSYC 7948 Research Methodology and Application in Behavior Analysis (3)

*Prereq.: graduate standing in psychology or consent of instructor.* Examination of the methods and procedures used in applied behavior analytic practice and research with a focus on direct observation of behavior, behavioral assessment and intervention. Emphasis on clinical and school applications.

# PSYC 7949 Lifespan Development: Behavioral Perspectives (3)

*Prereq.: graduate standing in psychology or consent of instructor.* Examination of the behavioral processes and environmental influences associated with typical and atypical development across the lifespan. Emphasis on verbal, motor, social, and cognitive development from the behavior analytic and competing perspectives.

# PSYC 7950 Industrial/Organizational Psychology Internship (3 or 6)

Prereq.: completion of general examination. Pass-fail grading. May be taken for a max. of 12 sem. hrs. of credit. Open only to graduate students nominated by the Department of Psychology and accepted by an approved internship organization. Supervised experience in an organization in the application of personnel and organizational psychology principles.

#### PSYC 7951 Competencies and Perspectives in Industrial and Organizational Psychology (3)

*Prereq.: Consent of instructor. May be taken for a max. of* 12 hrs. of credit when topics vary. An introduction to the 26 areas of competence suggested by the Society for Industrial and Organizational Psychology to be developed during graduate training as well as current topics in I/O research and practice. Additionally, this class will prepare students for their comprehensive examination, and prompt the development of new research projects.

#### PSYC 7958 Current Problems in Industrial Psychology (3)

Prereq.: consent of instructor. May be taken for a max. of 12 hrs. of credit when topics vary.

#### PSYC 7959 Current Problems in Industrial Psychology (3)

Prereq.: consent of instructor. May be taken for a max. of 12 hrs. of credit when topics vary.

# PSYC 7960 Supervision and Consultation in Psychology (3)

*Prereq.: graduate standing in clinical or school psychology or consent of instructor.* Focus on supervision and consultation in clinical psychology with discussion of major theories and models. Didactic and experiential methods of instruction will expose students to the implementation and practices of supervision and consultation.

# PSYC 7968 Current Problems in School Psychology (3)

*Prereq.: graduate standing in school psychology program or consent of instructor.* Research and methodological issues in school psychology; topics vary.

## PSYC 7969 Internship in School Psychology (1-6)

Prereq.: satisfactory completion of the general and language examinations and faculty approval. Pass-fail grading. May be taken for a max. of 12 sem. hrs. of credit. One full academic year of supervised internship that is no less than 1,200 hours, half of which must be in a school setting; internship requirement may be fulfilled by completing one full academic year or two years of one-half time internship experience; at least one hour per week is devoted to direct supervision of each intern.

#### PSYC 7972 Child Behavior Therapy (3)

*Prereq.: PSYC 7171 or equivalent; graduate standing in clinical or school psychology or consent of instructor.* Behavioral treatment of children's behavior problems.

## PSYC 7973 School-Based Psychological Interventions (3)

*Prereq.: graduate standing in psychology.* Survey of intervention strategies for various disorders and behavior problems displayed by children in school settings.

## PSYC 7979 Current Problems in Developmental Psychology (3)

Prereq.: consent of instructor. May be taken for a max. of 12 hrs. of credit when topics vary.

#### PSYC 7982 Advanced Psychopathology (3)

*Prereq.: Graduate standing in clinical or school psychology or consent of instructor.* Theories of psychopathology, specific etiological hypotheses and pertinent research evidence.

#### PSYC 7990 Teaching of Psychology (3)

*Prereq.: graduate standing in psychology. Required of all doctoral candidates to become instructor of record in the department.* Philosophy, theory and practice in higher education with application to undergraduate instruction in psychology.

#### PSYC 7997 Clinical Psychology Internship (3 or 6)

Prereq.: completion of course work and general examination. May be taken for a max. of 15 sem. hrs. of credit. Open only to graduate students nominated by the Department of Psychology and accepted by an approved internship program. Supervised evaluation and treatment of individuals manifesting mental disorders.

# PSYC 7999 Professional Considerations in Psychology (3)

*Prereq.: graduate standing in psychology. Required of all clinical and school doctoral candidates.* Professional ethics, practice and responsibility.

### PSYC 8000 Thesis Research (1-12 per sem.)

"S"/"U"grading.

## PSYC 8939 Independent Research: Experimental Psychology (1-6)

Prereq.: consent of instructor. Pass-fail grading. This course may be repeated for credit; a max. of 15 sem. hrs. in this series is allowed toward doctoral requirements.

# PSYC 8959 Independent Research: Industrial Psychology (1-6)

Prereq.: consent of instructor. Pass-fail grading. This course may be repeated for credit; a max. of 15 sem. hrs. in this series is allowed toward doctoral requirements.

#### PSYC 8979 Independent Research: Developmental Psychology (1-6)

Prereq.: consent of instructor. Pass-fail grading. This course may be repeated for credit; a max. of 15 sem. hrs. in this series is allowed toward doctoral requirements.

#### PSYC 8989 Independent Research: Clinical Psychology (1-6)

Prereq.: consent of instructor. Pass-fail grading. This course may be repeated for credit; a max. of 15 sem. hrs. in this series is allowed toward doctoral requirements.

## **PSYC 9000** Dissertation Research (1-12 per sem.) *"S"/"U"grading.*

## **Religious Studies**

#### REL 1000 Religions of the World (3)

[LCCN: CPHL 2213, World Religions] This is a General Education course. *Primarily for non-majors*. Survey of the religions of the world such as Hinduism, Buddhism, Judaism, Christianity, Islam and indigenous religious traditions.

#### REL 1001 Beginning Hebrew (4)

This is a General Education course. See HEBR 1001.

#### **REL 1002 Beginning Hebrew (4)**

This is a General Education course. See HEBR 1002.

#### **REL 1004 Old Testament (3)**

This is a General Education course. *Credit will not be given for this course and REL 1007.* Scholarly study of the Hebrew Bible (Old Testament) against the background of the history and religious life of ancient Israel.

#### **REL 1005 New Testament (3)**

This is a General Education course. Introduction to the history, religion and literature of early Christianity from about 30 to 150 CE; emphasis on the writings of the New Testament and the methods by which scholars study them.

#### **REL 1007 HONORS: Old Testament (3)**

Same as REL 1004, with special honors emphasis for qualified students. Credit will not be given for this course and REL 1004.

#### REL 2000 Introduction to the Study of Religion (3)

This is a General Education course. Thematic introduction to the academic study of religion; ways of being religious; forms of religious literature; beliefs and rituals; the place of religion in human life.

#### REL 2001 Faith and Doubt (3)

This is a General Education course. How religious faith is challenged or supported by various factors, such as reason, morality, organized religion, and the experience of suffering.

#### **REL 2003 Intermediate Hebrew (4)**

This is a General Education course. See HEBR 2003.

#### **REL 2004 Intermediate Hebrew (4)**

This is a General Education course. See HEBR 2004.

## REL 2006 HONORS: Jesus in History and Tradition (3)

Primarily for honors students and students concentrating in religious studies. Ideas about Jesus from antiquity to the present, including the modern quest for the historical Jesus.

#### **REL 2025 African American Religion (3)**

This is a General Education course. *Also offered as AAAS 2025*. This course will examine black religious experience in the United States from the colonial period to the present.

#### **REL 2027 Asian Religions (3)**

This is a General Education course. *Credit will not be* given for this course and REL 2031. Survey of the history, beliefs and practices of the major religions of Southern and Eastern Asia, focusing on Hinduism, Buddhism and the religions of China and Japan.

#### **REL 2028 Philosophy of Religion (3)**

This is a General Education course. *Same as PHIL 2028.* Meaning of religion as a pervasive phenomenon in human societies; faith and reason, nature of divinity, arguments for and against God's existence, religious knowledge and experience, morality and cult, the problem of evil.

#### REL 2029 Judaism, Christianity and Islam (3)

This is a General Education course. *Credit will not be given for this course and REL 2030.* Survey of the history, beliefs and practices of these three related religions.

## REL 2030 HONORS: Judaism, Christianity and Islam (3)

This is a General Education course. *Same as REL 2029, with special honors emphasis for qualified students. Credit will not be given for this course and REL 2029.* 

#### **REL 2031 HONORS: Asian Religions (3)**

This is a General Education course. *Same as REL 2027, with special honors emphasis for qualified students. Credit will not be given for this course and REL 2027.* 

#### **REL 2033 American Religions (3)**

This is a General Education course. Introduction to religions in America.

#### **REL 2034 Indigenous Religions (3)**

Introduction to the religions of the indigenous peoples or "First Nations" of the Americas, Africa and Australia.

## **REL 2120 The Holocaust (3)**

Responses of Judaism and the Christian church to Nazi Germany's killing of the Jews; issues about God, human morality, Western civilization and modernity.

## **REL 3000 Christianity (2)**

Advanced survey of the global history of Christianity, with in-depth analysis of the diversity of Christian beliefs and practices throughout the world.

#### REL 3004 Archaeology and the Bible (3)

*Also offered as ANTH 3004.* Major figures and discoveries influencing the historical study of the Bible; emphasis on results of excavations and discovery of written documents and inscriptions.

#### **REL 3010 Special Topics in Religious Studies (3)**

May be taken for a max. of 12 hrs. of credit when topics vary.

#### REL 3030 Topics in Mysticism (3)

May be taken for a max. of 6 sem. hrs. of credit when topics vary. Studies of the literature and practices of particular mystical traditions, such as Christian, Kabbalistic, Sufi, Hindu, Buddhist, Taoist, Afro-Caribbean or the shamanistic traditions of the Americas, or Tibet and Central Asia.

#### **REL 3033 Native American Religions (3)**

Survey of native North American religious traditions from prehistory to the present; including issues of conversion and Christianization, freedom of religion and gender.

#### REL 3051 Apocalypse: Then and Now (3)

Ideas about the end of the world from antiquity to the present; emphasis on the book of Revelation and its continuing influence.

#### **REL 3090 Comparative Mythology (3)** See CLST 3090.

## REL 3092 Fundamentalisms and Religious Nationalism (3)

Also offered as INTL 3092. Investigates how the phenomenon of fundamentalism manifests itself in combinations of religion and politics in various countries around the world as a response to "modernity."

### REL 3100 Judaism (3)

Religious texts, faith and practice in Judaism, from antiquity to the present.

#### **REL 3102 American Catholic History (3)**

Roman Catholicism in its North American context: the European heritage; immigration; political, intellectual and devotional life.

#### **REL 3104 Ancient Hebrew Prophets (3)**

Prophetic movement in ancient Israel; different modern interpretations of prophecy.

**REL 3124 The Literature of the English Bible (3)** *Also offered as ENGL 3124.* 

### **REL 3203 Religion and Parapsychology (3)**

Extraordinary human experiences such as faith healing, death and dying, exorcism, apparitions and witchcraft, examined from the perspective of religious phenomenology, philosophy and psychology.

#### REL 3300 Women and Religion (3)

Role of women in the religions of the world.

### REL 3786 The Religion of Islam (3)

Also offered as INTL 3786. Introduction to the major religious and cultural dimensions of the Islamic world, both those that express its diversity and those that express its continuity; emphasis on the development of classical Islamic institutions and ideas, the diverse forms of Islamic religious and cultural life over the past fourteen centuries as the Islamicate tradition has spread around the world.

# REL 4001 South Asian Society, Polity and Culture (3)

See INTL 4002.

**REL 4010 Selected Topics in Religious Studies (3)** 

May be taken for a max. of 12 hrs. of credit when topics vary.

**REL 4011 The Age of Reformation (3)** See HIST 4011.

### **REL 4012 History of Modern Christian Thought (3)**

Also offered as HIST 4012. Prereq.: one religious studies course. Major figures in the history of Christian thought from the Reformation through the 19th century.

## **REL 4018 Religion and Healing (3)**

Analysis of cultural and religious influences on the concepts of illness and health and the relationship of body and mind in cross-cultural perspective, including biomedicine and a range of Asian healing paradigms.

#### **REL 4031 Comparative Religions (3)**

See ANTH 4031.

## REL 4032 Religion, Gender and Society (3)

*Also offered as ANTH 4032.* Examination of the link between religious ideas and gender formulations within simple and complex societies and certain religious communities.

## REL 4035 Women & Buddhism (3)

Buddhist concepts of women in comparative sociohistorical contexts. Critical analyses of practices, teachings, and interpretive frames.

### REL 4050 A History of God (3)

Traces the development of the concept of God from antiquity to the present.

## REL 4079 Geography of Religion (3)

See GEOG 4079.

REL 4096 The Modern Middle East (3)

See HIST 4096.

#### **REL 4097 Political Theology (3)** See POLI 4097.

# REL 4124 Studies in African Diaspora Religions (3)

Also offered as AAAS 4124. May be taken for a max. of 6 hrs. of credit when topics vary. Analysis of religious beliefs, rituals, and practices and their roles in the lives of African Diaspora peoples.

### REL 4125 History of Ancient Israel (3)

*Also offered as HIST 4125.* Israelite history from its beginnings to the Christian era; readings from biblical and other ancient Near Eastern texts.

# REL 4161 History of Religion in the United States (3)

See HIST 4161.

### **REL 4171 Religion in Southern Culture (3)**

Religion as a component of Southern history and culture; emphasis on the religious culture of Louisiana.

#### **REL 4191 Religions of China and Japan (3)** See HIST 4191.

**REL 4200 Special Topics in American Religion (3)** Advanced examination of special topics in American religion.

REL 4227 Contemporary Christian Thought (3)

Major theologians and theological movements of the 20th century.

**REL 4236 Studies in Literature and Religion (3)** See ENGL 4236.

## **REL 4301 Theories of Religion (3)**

Theories about the origin, nature and function of religion from the social sciences and other disciplines.

# REL 4400 Religious Thought of Martin Luther King, Jr. & Malcolm X (3)

Also offered as AAAS 4400. This course explores the religious thought of Martin Luther King, Jr. and Malcolm X through a close examination of their most significant writings and speeches.

## **REL 4500 Seminar in Biblical Studies (3)**

Prereq.: one course in Biblical studies. May be taken for a max. of 6 hrs. of credit when topics vary.

## REL 4505 The Rise of Christianity (3)

Also offered as HIST 4505. An introduction to the history, literature, and religion of ancient Christianity from its beginnings in first-century Palestine to its establishment as the mandated religion of the Roman Empire under Justinian in the sixth century.

### REL 4507 Topics in the History of Christianity (3)

Also offered as HIST 4507. Prereq.: permission of instructor. May be taken for a max. of 9 sem. hrs. of credit when topics vary.

#### REL 4600 Hinduism (3)

*Prereq.: REL 2027 or consent of instructor.* A survey of Hinduism from its origins to the present.

#### REL 4800 Buddhism (3)

*Prereq.: REL 2027 or consent of the instructor.* A survey of Buddhism from its origins to the present.

#### **REL 4850 Buddhist Psychology (3)**

Buddhist conceptions of mind, self, psyche and personhood in comparison to Western views of the same.

## **REL 4928 Medieval Philosophy (3)**

See PHIL 4928.

## REL 4939 Kierkegaard (3)

See PHIL 4939.

#### **REL 4990 Independent Study (1-3)**

Prereq.: written consent of instructor and department. May be taken for a max. of 6 hrs. of credit when topics vary.

#### **REL 7990 Independent Study (3)**

May be taken for a max. of 6 sem. hrs. of credit when topics vary.

## **Renewable Natural Resources**

#### **RNR 1001 Natural Resource Conservation (3)**

This is a General Education course. Relationship of humans to the natural environment; ecology and conservation of soil, water, forest, range, wildlife and fisheries resources.

## RNR 1002 Issues in Natural Resource Management (1)

*Prereq.: for RNR majors only; credit or registration in RNR 1010 or RNR 1071.* Discussions of the ecological, economic, sociocultural and political factors that affect human relationships with the natural environment and the exploitation and conservation of water, forest, range, wildlife, wetland and fisheries resources.

#### RNR 1004 Conservation of Forest Resources (2)

Resources of forest and range land, including wood, wildlife, recreation forage and water; techniques of multiple-use management of forest lands.

## RNR 1010 Introduction to Natural Resource Ecology and Management (4)

An Honors Course, RNR 1071, is also available. Credit will not be given for this course and RNR 1001 or RNR 1071. Prereq.: Majors only or permission of instructor. 3 hrs. lecture, 1 hr. discussion. Ecology, management, and conservation of forest, fish, wetland, and wildlife species and their habitats; introduction to the ecology and taxonomy of commercially, socio-culturally, recreationally, and ecologically important terrestrial and aquatic organisms.

# RNR 1071 HONORS: Introduction to Natural Resource Ecology and Management (4)

Same as RNR 1010, with special honors emphasis for qualified students. Credit will not be given for this course and RNR 1010. Prereq.: Admission to the Honors College and credit or registration in BIOL 1207. 3 hrs. lecture, 1 hr discussion. Ecology, management, and conservation of forest, fish, wetland, and wildlife species and their habitats; introduction to the ecology and taxonomy of commercially, socio-culturally, recreationally, and ecologically important terrestrial and aquatic organisms.

## RNR 2001 Trees and Woody Plants of the Southeast (2)

Prereq.: "C" or better in RNR 1010 or RNR 1071, "C" or better in BIOL 1202. Students are responsible for paying for travel expenses associated with this course. 1 hr. lecture; 3 hrs. lab. Principal trees of the southeastern U.S.; their identification, classification, nomenclature, and distribution. Emphasis on southern timber species; common shrubs, ornamentals, woody vines and some herbaceous plants will also be covered.

# RNR 2002 Introduction to Fisheries and Aquaculture (3)

Students are responsible for paying for travel expenses associated with this course. 2 hrs. lecture; 3 hrs. lab. History and scope of fisheries and aquaculture; production and harvest of economically important aquatic vertebrates and invertebrates; role of fisheries and aquaculture professionals in society.

# RNR 2003 Trees and Woody Plants of the Eastern and Western United States (1)

Prereq.: RNR 2001 or consent of instructor. Students are responsible for paying for travel expenses associated with this course. 3 hr. lab. Important trees of the eastern and western U.S.; their identification, distribution and value. Emphasis on important timber species and a limited number of common woody shrubs.

#### RNR 2031 Principles of Wildlife Management (3)

An honors course, RNR 2072, is Also offered. Prereq.: RNR 2101 or RNR 2070 or concurrent enrollment. Credit will not be given for this course and RNR 2072. Wildlife conservation and management; ecology and management of wildlife in relation to the objectives of consumptive and nonconsumptive interest groups.

# RNR 2039 Introduction to Renewable Natural Resource Policy (3)

An honors course, RNR 2071, is also offered. Prereq.: "C" or better in RNR 1010 or RNR 1071 or equivalent; "C" or better in BIOL 1202. Credit will not be given for this course and RNR 2071. Development and implementation of policies in renewable natural resources with emphasis on forestry, wildlife, fisheries, and waterfowl policies; current environmental issues.

### RNR 2043 Wood Science and Forest Products (3)

2 hrs. lecture; 3 hrs. lab. Structural components of wood and identifying characteristics; basic physical properties; manufacture and uses of forest products.

## RNR 2061 Problems in Natural Resource Management (1-4)

*Prereq.: permission of instructor. May be taken for a max. of 4 sem. hrs. of credit.* Topics covered vary with the needs of the student and availability of faculty.

## RNR 2070 HONORS: Ecology of Renewable Natural Resources (4)

Same as RNR 2101, with special honors emphasis for qualified students. Prereq.: BIOL 1503 and RNR 1071. Credit will not be given for this course and RNR 2101. Ecological principles and population dynamics; emphasis on interactions between populations in communities, ecosystems and landscapes.

# RNR 2071 HONORS: Introduction to Renewable Natural Resources Policy (4)

Same as RNR 2039, with special honors emphasis for qualified students. Prereq.: credit or enrollment in RNR 2070 or permission of instructor; "C" or better in RNR 1010 or RNR 1071 or equivalent; "C" or better in BIOL 1202. Credit will not be given for this course and RNR 2039. Development and implementation of policies in renewable natural resources; current environmental issues.

# RNR 2072 HONORS: Principles of Wildlife Management (4)

Same as RNR 2031, with special honors emphasis for qualified students. Prereq.: RNR 2071 or permission of instructor. Credit will not be given for this course and RNR 2031. Population management, habitat management and policy associated with wildlife management. Sustainability of hunting and of endangered wildlife species. Indirect effects of toxins, eutrophication, human infrastructure and climate change on wildlife habitat and wildlife populations.

# RNR 2101 Ecology of Renewable Natural Resources (3)

An honors course, RNR 2070, is also available. Prereq.: RNR 1010 or RNR 1071, "C" or better in BIOL 1202, BIOL 1209. Credit will not be given for this course and RNR 2070. General ecological principles tied to the conservation and management of plant and animal populations; emphasis on how populations interact in communities and ecosystems.

# RNR 2102 Natural Resource Measurements and GIS (3)

Prereq.: "C" or better in RNR 1010 or RNR 1071 or equivalent; "C" or better in BIOL 1202. Students are responsible for paying for travel expenses associated with this course. 2 hrs. lecture; 3 hrs. lab. Introduction to sampling techniques in measuring renewable natural resources, such as trees, wood products, forest stands, wildlife and fisheries populations and water quality. Introduction to use of global information systems (GIS) and global positioning systems (GPS) applications in natural resource management.

#### RNR 3002 Silviculture (2)

*Prereq.: RNR 2101. Basic knowledge of personal computers and e-mail is assumed.* A generalized approach to forest stand establishment and culture based on the ecological principles of regeneration and the identification of stand conditions that will satisfy specific goals and objectives for the forest.

#### RNR 3004 Photogrammetry, GPS and GIS (3)

Prereq.: permission of department. Students are responsible for paying for travel expenses associated with this course. 2 hrs. lecture, 3 hrs. lab. Principles, interpretation and use of aerial photos, Global Positioning Systems (GPS) and Geographic Information Systems (GIS) in stand measurements and forest management applications.

#### RNR 3005 Field Studies in Wildlife Habitat and Management (2)

Offered in Intersession only. *Prereq.: RNR 2001. Class meets 8 hrs. per day for 2 weeks at off-campus sites. Students are responsible for paying for travel expenses associated with this course.* Identification of woody and herbaceous plants important to wildlife species and techniques used to manage and quantify wildlife habitat; emphasis on collecting field data and plant identification in field setting to assess habitat quality and management options for wildlife.

# RNR 3018 Ecology and Management of Southeastern Wildlife (4)

*Prereq.: RNR 2031 or RNR 2072. Students are responsible for paying for travel expenses associated with this course. 2 hrs. lecture; 6 hrs. lab.* Habitat selection, food habits and reproductive biology of selected species of amphibians, reptiles, birds, mammals and fishes; emphasis on the diversity of niche exploitation strategies among these groups.

#### RNR 3034 Field Studies in Dendrology (1)

Prereq.: RNR 2001. One week of field practice. Students are responsible for paying for travel expenses associated with this course. Review of species studied in RNR 2001; 60 to 70 more species of trees, shrubs and woody vines indigenous to the southeastern U.S. studied; herbarium collection required.

## RNR 3036 Field Studies in Mensuration (2)

Prereq.: RNR 3103. Two weeks of field practice. Students are responsible for paying for travel expenses associated with this course. Exercises in designing and conducting timber and multipurpose cruises; boundary location and other types of land surveying associated with forest resource management.

### RNR 3037 Field Studies in Silviculture (1)

Prereq.: RNR 2001, RNR 3002 and RNR 3103. One week of field practice. Students are responsible for paying for travel expenses associated with this course. Field tours of a range of forestry practices and field experiences in various silviculture practices.

### RNR 3038 Field Studies in Timber Harvesting (1)

Prereq.: RNR 3002 and RNR 3103. One week of field practice. Students are responsible for paying for travel expenses associated with this course. On-site studies of harvesting systems used in southern forestry; participation in timber harvesting; exercises in time and production.

#### RNR 3039 Field Studies in Wood Utilization (1)

Prereq.: RNR 2043, RNR 3002 and RNR 3103. One week of field practice. Students are responsible for paying for travel expenses associated with this course. On-site studies of wood manufacturing facilities; exercises in product/raw material relationships.

#### **RNR 3040 Silvicultural Prescriptions (1)**

Prereq.: RNR 3002 and RNR 3103. One week of field practice. Students are responsible for paying for travel expenses associated with this course. Practical development of silvicultural prescriptions incorporating elementary economic analysis and silvicultural principles.

#### RNR 3041 Field Studies in Forested Wetlands (1)

Students are responsible for paying for travel expenses associated with this course. Learn about structure, functions, and ecosystem services of wetlands in forested landscapes through field experiences and field trips. Gain an appreciation for wetland and water management issues and techniques in forestry.

## RNR 3044 Renewable Natural Resources Field Studies (1)

Prereq.: NNR 3002, RNR 3103. One-week field trip. Students are responsible for paying for travel expenses associated with this course. Insight into management objectives and issues in forested ecosystems not found in the West Gulf Coastal Plain; experience gained through onsite tours and discussions with various natural resource professionals.

#### **RNR 3103 Forest Biometrics (2)**

*Prereq.: RNR 2102, EXST 2201 and MATH 1431.* Principles in measuring trees, stands, wood products and other forest resources; sampling and inventory techniques; statistical inference.

#### RNR 3105 Forest Biology (2)

Prereq.: RNR 2101 or RNR 2070. This is an 8-week course. The general university drop/add dates do not apply. The instructor will provide students with the drop/add dates established by the Office of the University Registrar. Topics include: tree anatomy, tree growth, tree physiology, forest genetics and ecological principles specific to the understanding of forest ecosystems and sustainable management of forests.

#### RNR 3106 Timber Harvesting (2)

Students are responsible for paying for travel expenses associated with this course. This is an 8-week course, the general university drop/add dates do not apply. The instructor will provide students with the drop/add dates established by the Office of the University Registrar. 1 hr. lecture; 3 hrs. lab. Methods of harvesting timber crops; logging equipment, planning, road layout, legal and social issues, environmental concerns, financial analysis of logging operations and contracts; field trips and practical exercises included.

#### RNR 3107 Wood Procurement (2)

Students are responsible for paying for travel expenses associated with this course. This is an 8-week course. The general university drop/add dates do not apply. The instructor will provide students with the drop/add dates established by the Office of the University Registrar. 1 hr. lecture; 3 hrs. lab. Methods of purchasing and marketing timber crops; practicum of timber and pulpwood purchasing systems; value assessments, wood specifications, human relations, negotiations, ethics, competitive bidding; legal and social issues; contracts; records; wood storage; and global aspects; field trips and practical exercises included.

#### RNR 3108 Case Studies in Habitat Restoration (2)

Prereq.: RNR 2101 or RNR 2070; 2 weekend field trips. Students are responsible for paying for travel expenses associated with this course. The general university drop/add dates do not apply because this is an 8-week course. The instructor will provide students with the drop/add dates established by the University Registrar. 1 hr. lecture, 3 hrs. lab Principles related to the context, planning, design and implementation of habitat restoration and mitigation; evaluation of habitat restoration efforts using the case study method.

## RNR 3913 Quantitative Methods in Wildlife and Fisheries (4)

Prereq.: RNR 1010, RNR 2101, "C" or better in RNR 2102, EXST 2201 and junior or senior status. 3 hrs. lecture; 3 hrs. lab. Specialized, modern quantitative methods necessary for entry-level and early career positions in wildlife and fisheries research and management. Computer-based data analysis of GIS, remotely-sensed, and field collected experimental and observational data, including life tables, mark-recapture, matrix population expansion, and distance and detection based abundance estimation.

#### RNR 4001 Silviculture Lab (1)

Prereq.: credit or registration in RNR 3002. Students are responsible for paying for travel expenses associated with this course. Working knowledge of a word processor, spreadsheet and email is assumed. 3 hrs. lab. Basic office and field techniques for assessing forest structure and controlling stand development.

### RNR 4011 Wildlife Management Techniques (4)

Prereq.: RNR 2031 or RNR 2072 and EXST 2201; RNR 3018. Weekend field trips. Students are responsible for paying for travel expenses associated with this course. 3 hrs. lecture; 3 hrs. lab. Wildlife science and the scientific method, generating and testing hypotheses and predictions, statistical analysis of class generated data and scientific writing. Population inventories and analysis; harvest management; methods to capture animals and determine age and sex. Immobilization methods, marking methods, radio telemetry and assessment of nutrition and condition. Use of GPS and GIS in wildlife ecology.

## RNR 4012 Waterfowl Biology and Conservation (4)

Prereq.: RNR 2031 or RNR 2072 and RNR 3018. Weekend field trips. Students are responsible for paying travel expenses associated with this course. Credit will not be given for this course and RNR 7012. 3 hrs. lecture; 3 hrs. lab. Ecology, conservation, and management of North American waterfowl; overview of life history theory and behavioral ecology of waterfowl; methods of population monitoring and management, habitat management, and human dimensions of waterfowl conservation.

## RNR 4013 Ecology and Management of Wetland Wildlife (4)

Students are responsible for paying for travel expenses associated with this course. 3 hrs. lecture; 3 hrs. lab. History and value of wetlands, waterfowl, fur animals, alligators, wetland habitat management.

#### RNR 4015 Conservation Biology (4)

Same as BIOL 4015. Prereq.: 11 sem. hrs. biological sciences; genetics recommended.

#### RNR 4016 Upland Game Bird Biology (4)

Prereq.: RNR 3018. Students are responsible for paying for travel expenses associated with this course. Not for graduate credit. 3 hrs. lecture; 3 hrs. lab. Biology, ecology, conservation, and management of selected upland birds found in North America.

**RNR 4017 Laboratory in Conservation Biology (2)** Same as BIOL 4017. 4 hrs. lab.

# RNR 4020 Taxonomy and Ecology of Wetland Plants (4)

See BIOL 4020.

#### **RNR 4022 Principles of Aquaculture (4)**

Prereq.: 8 sem. hrs. of introductory chemistry and 8 sem. hrs. of introductory zoology and/or biology; or equivalent. Students are responsible for paying for travel expenses associated with this course. 3 hrs. lecture; 3 hrs. lab with occasional extended field trips. Principles underlying aquaculture of fish, crustaceans and mollusks.

### **RNR 4023 Marine Fisheries Resources (3)**

Survey of the biology, harvest and management of commercially important marine organisms throughout the world; emphasis on stock trends and the effects of biological and socio- economic factors on development of management programs.

#### RNR 4025 Limnology (3)

*Prereq.: BIOL 1201, BIOL 1208 and CHEM 1201, CHEM 1202, CHEM 1212 or equivalent.* Geomorphology, physiochemistry, biology and ecology of inland waters.

#### RNR 4032 Forest Fire Protection and Use (2)

Students are responsible for paying for travel expenses associated with this course. 8-week course. The general university drop/add dates do not apply. The instructor will provide students with drop/add dates established by the Office of the University Registrar. 1 hr. lecture; 3 hrs. lab. Forest fire control and use; emphasis on southern forests.

# RNR 4033 Silviculture and Management of Hardwoods (4)

Prereq.: RNR 3002 or consent of instructor. Students are responsible for paying for travel expenses associated with this course. Extended field trips, one weekend field trip. 3 hrs. lecture; 3 hrs. lab. Ecology, silviculture and management of hardwood forest ecosystems; improvement, conservation, and use for forest products, wildlife habitats and other amenities.

#### **RNR 4036 Forest Management (4)**

*Prereq.: ECON 2030 or AGEC 2003 or equivalent, RNR 3036, RNR 3037 and RNR 3040. 3 hrs. lecture; 3 hrs. lab.* Compounding and discounting; management of a single stand, even-aged and uneven-aged management, decision criteria and decision variables, management of an existing stand; forest taxation and valuation; management of many stands; harvest scheduling.

### RNR 4037 Biology of Fishes (3)

*Prereq.: RNR 4145 or consent of instructor.* Morphological, physiological and behavioral adaptations of fishes to their environments; relationships between fish biology and fisheries management.

#### **RNR 4038 Forest Resource Economics (3)**

*Prereq.: ECON 2030 or AGEC 2003 or equivalent.* Economic theory applied to forest resources and their utilization; structure of the forest products market, demand of forest products, timber supply and stumpage price; resource conservation and endangered species protection; taxation and government programs; international trade of forest products; demand for non-timber resources.

#### **RNR 4040 Fisheries Management (3)**

Characteristics of fisheries; dynamics of exploited stocks; socioeconomic aspects of fisheries; fisheries management and research techniques; managing wild fisheries stocks.

# RNR 4061 Special Problems in Natural Resource Management (1-4)

Prereq.: permission of instructor. May be taken for a max. of 4 sem. hrs. credit. Credit varies by topic. Individual, independent, mentored, and directed study.

# RNR 4062 Special Topics in Natural Resources (1-4)

Prereq.: permission of instructor. May be taken for a max. of 4 sem. hrs. of credit when topics vary. Lectures and/or laboratories on selected topics not covered in other renewable natural resources courses.

#### RNR 4063 Internship in Natural Resources (1-4)

Prereq.: permission of department.

May be taken for a max. of 4 sem. hrs. of credit. Each hour of credit requires 40 hours of supervised experience. Supervised professional experience designed to integrate

academic learning with professional practice.

## RNR 4064 Wildlife Field Study in Africa (1)

Prereq.: RNR 2031 or RNR 2072, RNR 2101 or RNR 2070 or equivalent, and RNR 3018. Permission of instructor. Seminar to prepare students for field study of wildlife research and management practices in southern Africa.

#### RNR 4101 Capstone: Natural Resources Management, Policy and Human Dimensions (4)

Prereq.: RNR 2039 or RNR 2071, RNR 3004 and senior status in School of Renewable Natural Resources. Students are responsible for travel expenses associated with this course. Course is intended for students in the final semester. 2 hrs. lecture; 4 hrs. lab. Development of problem-solving skills for the management of renewable natural resources; application and integration of renewable natural resource management theory, policy, practices and human dimensions; analysis of management and policy decisions.

#### **RNR 4103 Conservation Genetics (3)**

*Prereq.: BIOL 1201 and BIOL 1202.* Application of genetic theory to the management of renewable natural resources; emphasis on fragmented populations, endangered species, maintenance of genetic variation.

# RNR 4106 Techniques in Limnology and Fisheries (2)

Prereq.: junior, senior or graduate standing and permission of instructor. Students are responsible for paying for travel expenses associated with this course. 1 hr. lecture; 1 hr. lab. Quantitative techniques in habitat, water quality and fish population assessment in freshwater ecosystems.

# RNR 4107 Human Dimensions in Natural Resources (3)

*Prereq.: RNR 2039 or RNR 2072, 6 hrs. social science general education electives.* Human behavior as related to management and use of natural resources.

# RNR 4108 Outreach Methods in Natural Resource Ecology and Management (3)

Prereq.: For RNR majors only or permission of instructor; BIOL 1202, BIOL 1209, RNR 1001, RNR 2101 or RNR 2070. Current environmental issues including ecological, economic, sociocultural and political factors that affect human relationships with the natural environment. Introduction to general principles of environmental literacy and outreach methods for various audiences.

### RNR 4110 African Wildlife Ecology (1-4)

Prereq.: RNR 2031 or RNR 2072, RNR 2101 or RNR 2070 or equivalent, RNR 3018, and RNR 4064. Permission of department. Junior, senior, or graduate student status. May be offered for up to 4 credits. Two weeks of field practice. Students are responsible for travel expenses associated with this course. Field study of wildlife ecology, research, and management practices in southern Africa.

# **RNR 4130** Introduction to Aquatic Entomology (4) See: ENTM 4130.

# RNR 4140 Wildlife and Fisheries Ecotoxicology (4)

*3 hrs. lecture; 3 hrs. lab.* Provides students with an overview of ecological and biological aspects of toxicology. Emphasizes the biochemical and physiological effects of pollutants on animals, effects on wildlife and fisheries population dynamics, modeling, as well as, techniques applied in wildlife and fisheries toxicology studies.

## RNR 4145 Ichthyology (4)

See BIOL 4145.

#### RNR 4150 Forest Hydrology and Soils (3)

*Prereq.:* AGRO 2051 or consent of instructor. 2 hrs. *lecture;* 3 hrs. lab. Principles of hydrology and soils with emphasis on forest environments. Forest soil development, role of forests in the hydrologic cycle, and the role of soil and water in natural resource management.

# RNR 4268 Environmental and Natural Resources Policy (3)

See ENVS 4268.

#### **RNR 4900 Watershed Hydrology (3)** See ENVS 4900.

# RNR 4913 Introductory Wildlife Population Dynamics (3)

*Prereq.: MATH 1431/MATH 1550; credit or enrollment in RNR 4011.* Not for graduate credit. 2 hrs. lecture; 3 hrs. lab. Introduction to theories of population growth and regulation, population interaction, life tables, mortality rate calculation; band data analysis, population modeling.

#### RNR 7001 Research Methodology (3)

Planning, conducting and reporting of research in the renewable natural resources.

### RNR 7006 Behavioral Ecology (3)

Behavioral ecology of plants and animals; evolution of behavior; behavioral strategies for survival and reproduction; importance of behavior to management and conservation strategies.

## RNR 7007 Policy Considerations for the Management of Natural Resources (3)

Review of the history of U.S. natural resource policy to include the policy process and policy conflicts. Development of skills needed to evaluate natural resources policy. Focus on agricultural policy and public policy concerning land, endangered species, environmental regulations and incentive programs.

## RNR 7008 Green Energy in Renewable Natural Resources (3)

Energy derived from green sources, including wood and agronomic biomass, wind, solar, conversion technologies, gasification, ethanol, biodiesel, synthetic gas, landfill gas, manures, economic considerations, and carbon credits.

## RNR 7011 Mammalian Ecology and Management (3)

Students are responsible for paying for travel expenses associated with this course. 2 hrs. lecture; 3 hrs. lab. Management, ecology and conservation of selected mammals of North America.

## RNR 7012 Ecology and Management of Waterfowl (3)

Credit will not be given for this course and RNR 4012. Students are responsible for paying for travel expenses associated with this course. 2 hrs. lecture; 3 hrs. lab. Behavioral and physiological adaptations of waterfowl throughout the annual cycle; population dynamics and habitat management; political and economic aspects of harvest management in North America.

#### RNR 7013 Wildlife Population Dynamics (3)

*Prereq.: EXST 7005 or equivalent. 2 hrs. lecture; 2 hrs. lab.* Theories of population growth and regulation, population interaction, life tables, mortality rate calculation; band data analysis; population modeling.

## RNR 7015 Ecology and Management of Upland Birds (3)

Students are responsible for paying for travel expenses associated with this course. 2 hrs. lecture; 3 hrs. lab Ecology and management of selected upland birds found in North America; students will develop a comprehensive management plan for a selected species.

## RNR 7016 Current Topics and Techniques in Conservation Science (3)

2 hrs. lecture; 3 hrs. lab. Scientific basis for the preservation of biodiversity; conservation strategies of government and non-government organizations; current status of biodiversity around the world; new techniques applicable to conservation biology; quantitative exercise with predictive demography (PVA), biodiversity at the population and community levels, fragmentation and other landscape effects and genetics of small populations.

## RNR 7017 Restoration and Management of Wetland Functions (4)

Two weekend field trips; one five-day field trip. Students are responsible for paying for travel expenses associated with this course. 2 hrs. lecture, 6 hrs. lab. Wetland Ecology with a focus on functions valued by society; natural history of commonly managed wetland types; fundamentals of restoration ecology; wetland restoration programs in theory and in practice.

### RNR 7020 Ecology of Fishes (3)

*Prereq.: BIOL 4253 or equivalent.* Ecology of fish populations; interactions of fishes and their environment; behavioral adaptations of fishes.

## RNR 7029 Advanced Topics in Renewable Natural Resources (1-4)

May be taken for a max. of 6 sem. hrs. of credit when topics vary.

#### **RNR 7030 Aquatic Entomology (4)** See ENTM 7030.

## RNR 7036 Advanced Topics in Natural Resources Biometrics and Management (3)

*Prereq.: EXST 7014 or equivalent.* Theory and practice of modeling in natural resources applications, including populations, communities, habitats and related biological, physical and chemical processes.

**RNR 7043 Environmental Law and Regulation (3)** *See ENVS 7043.* 

# RNR 7046 International Environmental Law and Policy (3)

See ENVS 7046.

**RNR 7048** Natural Resources Law and Policy (3) *See ENVS 7048.* 

**RNR 7061 Watershed Biogeochemistry (3)** See ENVS 7061.

### RNR 7070 Graduate Seminar in Fisheries (1)

May be taken for a max. of 4 sem. hrs. of credit when topics vary.

#### RNR 7071 Graduate Seminar in Forestry (1)

Pass-fail grading. May be taken for a max. of 3 hrs. of credit.

#### RNR 7072 Graduate Seminar in Wildlife (1)

May be taken for a max. of 4 sem. hrs. credit when topics vary. Topics of current interest in wildlife science and management.

# RNR 7073 Graduate Seminar in Watershed and Water Resources (1)

May be taken for a max. of 4 sem. hrs. credit when topics vary; consent of instructor. Critical reading and discussion of current literature and major topics in watershed and water resources relating to natural resources.

#### RNR 7424 Diseases of Aquatic Animals (3)

Same as PBS 7424. Prereq.: consent of instructor. Basic microbiology and/or parasitology strongly recommended. 2 hrs. lecture; 2 hrs. lab. Identification, pathogenesis, and control of viral, bacterial, and parasitic agents causing diseases in aquatic animals.

## RNR 8000 Thesis Research (1-12 per sem.)

"S"/"U"grading.

# RNR 8900 Research Problems in Natural Resources (1-3)

Pass-fail grading. May be taken for a max. of 6 sem. hrs. of credit.

## RNR 9000 Dissertation Research (1-12 per sem.)

"S"/"U"grading.

## **Screen Arts**

#### SCRN 2001 Introduction to Screen Arts (3) Study of film, television and video.

### SCRN 3001 Special Topics in Screen Arts (3)

May be taken for a max. of 6 hrs. of credit when topics vary. Selected topics relevant to the study of screen arts.

## SCRN 3010 Art of Cinematography (3)

In-depth study of history, concepts, and methods of film and video cinematography; formal instruction and practice in filmmaking techniques such as framing, camera movement, depth of field, and other key ideas as they relate to the creation of film narrative, aesthetic communication, and rhetoric.

## SCRN 3011 Art of Editing (3)

In-depth study of the history, concepts, and skills involved in film and video editing techniques; formal instruction and practice in non-linear editing along with concepts such as montage, continuity editing, and narrative.

## SCRN 3012 Film Directing (3)

In-depth study of and practice in various elements, techniques, and disciplines for directing film and video. Development of such skills as on-screen storytelling; manipulating performance, mood, and emotion; logistical, technical, and artistic problem-solving; managing time and people.

## SCRN 3014 Film Producing (3)

An in-depth, intensive examination of film producing as related to the business and managerial side of contemporary video and cinema production.

### SCRN 3020 Independent Study in Screen Arts (3)

*Prereq.: consent of instructor.* Program of study, research and work in areas concerned with screen arts.

#### SCRN 3030 Internship in Screen Arts (3)

Prereq.: Permission of department; permission of instructor. Normally open to only juniors and seniors. Internship at Screen Arts related agency, organization, or network, and research project and discussion with faculty mentor.

## SCRN 3502 Special Topics in Italian Cinema (3) *See ITAL 3502.*

#### SCRN 3503 Special Topics in Asian Cinema (3)

May be taken for 6 sem. hrs. of credit when topics vary. Indepth study of various aspects of Asian cinema.

## SCRN 3504 Special Topics in Latin American Cinema (3)

*Prereq.: Permission of department. May be taken for 6 sem. hrs. of credit when topics vary.* In-depth study of various aspects of Latin American cinema.

### SCRN 3505 Horror Film (3)

In-depth study of various aspects of the Horror Film genre.

## SCRN 4001 Advanced Topics in Screen Arts (3)

May be taken for a max. of 6 hrs. of credit when topics vary. Advanced topics relevant to the study of screen arts.

#### SCRN 4012 Advanced Film Directing (3)

*Prereq.: Credit in SCRN 3010, SCRN 3012, SCRN 3014 or equivalent or permission of instructor.* Students will each make a single, semester-long ambitious short film (narrative or documentary) applying all the steps in a director's journey from idea to finished film.

## SCRN 4014 Advanced Film Producing (3)

*Prereq.: SCRN 3010, SCRN 3012, SCRN 3014 or equivalent or permission of instructor.* Advanced study and practice in the business and managerial side of filmmaking.

#### SCRN 4015 Advanced Film Practices (3)

Prereq.: Credit in SCRN 3010, SCRN 3011, SCRN 3012, SCRN 3014 or equivalent or permission of instructor. Students will select different specialties/departments on a film crew and create film scenes to increase their knowledge of and skills within the chosen specialty.

#### SCRN 7001 Graduate Seminar in Screen Arts (3)

Prereq.: permission of instructor. May be repeated for a max. of 6 hours of credit when topics vary. Interdisciplinary graduate level study of selected topics in Screen Arts.

### SCRN 7900 Independent Study in Screen Arts (3)

*Prereq.: permission of instructor. May be repeated for a max. of 6 hrs. of credit when topics vary.* Independent graduate level research and study of designed topics in Screen Arts.

## Sociology

#### SOCL 2001 Introductory Sociology (3)

[LCCN: CSOC 2013, Introduction to Sociology] This is a General Education course. *Credit will not be given for this course and SOCL 2002*. Major subject areas and principles of sociology.

#### SOCL 2002 HONORS: Introductory Sociology (3)

This is a General Education course. *Same as SOCL 2001* with a special honors emphasis for qualified students. *Credit will not be given for this course and SOCL 2001.* 

### SOCL 2010 Louisiana in a Global Context (3)

2 hr. lecture, 1 hr. recitation. Introduces students to the history, people and culture of Louisiana through academic learning and hands on experience.

#### SOCL 2201 Introduction to Statistical Analysis (4)

[LCCN: CSOC 3113, Intro to Statistical Analysis] *Prereq.: MATH 1021 or equivalent. Open to sociology majors; open to others with permission of instructor. 3 hrs. lecture; 2 hrs. lab* Descriptive statistics; inferential statistical methods including confidence interval estimation and hypothesis testing for one and two population means and proportions; one-way analysis of variance; simple linear regression and correlation; analysis of categorical data.

#### SOCL 2211 Methods of Sociological Research (3)

Prereq.: SOCL 2001 and SOCL 2201 or equivalent. Open to sociology majors; open to others with permission of instructor. Scientific methods and their application in sociological research, including problem selection, research design, measurement, data sources and evaluation of data.

#### SOCL 2255 Sociology of Sport (3)

Application of sociological principles, theories, and methods to the understanding of sport.

#### SOCL 2301 Introduction to Crime Studies (3)

Fundamentals of the causes, correlates, consequences, and controls of crime in society, including definitional and methodological issues.

# SOCL 2371 Aspects of Federal, State and Local Law Enforcement (3)

A survey of federal, state and local law enforcement agencies origins, powers, and career expectations.

#### SOCL 2411 Industrial Sociology (3)

Social organization in industry; relation of industry to community and society.

### SOCL 2501 Current Social Problems (3)

[LCCN: CSOC 2113, Social Problems] This is a General Education Course. Sociological analysis of major social problems in contemporary society; focus on both the institutional and personal causes and consequences.

#### SOCL 2505 Marriage and Family (3)

[LCCN: CSOC 2213, Marriage and Family] This is a General Education Course. Current issues and trends regarding marriage and family.

#### SOCL 2511 Race Relations (3)

[LCCN: CSOC 2413, Race, Class & Ethnicity] *Also* offered as AAAS 2511. Examines relations among persons of different racial groups in an interdisciplinary setting that includes sociological, psychological, political, anthropological and historical viewpoints.

#### SOCL 3101 Sociological Theory (3)

[LCCN: CSOC 3013, Sociological Theory] *Prereq.: SOCL* 2001 or equivalent. Open to sociology majors; open to others with permission of instructor. Dominant theorists and schools of thought in sociology.

# SOCL 3371 Sociology of the Criminal Justice System (3)

[LCCN: CCRJ 2613, Judicial Process] *Prereq.: SOCL 2001 or equivalent.* The criminal justice system and its organizational components.

#### SOCL 3401 Sociology of Culture (3)

*Prereq.: SOCL 2001 or equivalent.* Current theoretical perspectives, methodological issues and empirical work in the sociological study of culture.

#### SOCL 3501 Sociology of Deviance (3)

[LCCN: CCRJ 2513, CSOC 2313, Deviance, Sociology of Deviance] *Prereq.: SOCL 2001 or equivalent*. Sociological theories of deviant behavior; sup-porting research on mental illness, crime, sexual deviance, drug abuse and suicide.

#### SOCL 3505 Poverty in the United States (3)

*Prereq.: SOCL 2001 or SOCL 2501 or equivalent.* Definition of poverty, its meaning, measurement, causes, correlates and consequences; strategies for its amelioration and elimination.

#### SOCL 3510 Criminal Violence (3)

*Prereq.: SOCL 2001 or equivalent.* An in-depth study of criminal violence, including its forms, myths and facts regarding victims and offenders, and the causes, consequences and control of violence.

#### SOCL 3601 Social Interaction (3)

*Prereq.: SOCL 2001 or PSYC 2000 or equivalent.* Human behavior as social interaction.

#### SOCL 3900 Sociology Internship (1-3)

Prereq.: 75 hours of course work completed, 2.50 overall GPA, written consent of department head and supervising faculty member May be taken for a max. of 3 hrs. of credit. Faculty supervised field study/research with an agency or organization whose mission is considered relevant to the student's curriculum.

# SOCL 3901 Directed Reading and Research in Sociology (1-3)

Prereq.: SOCL 2001 or equivalent. May be taken for a max. of 3 sem. hrs. credit. Student registers with a faculty member before registration to select the area of reading or research. Topic must not substitute for regularly offered courses unless reading goes beyond a standard course's offerings.

#### SOCL 3905 HONORS: Senior Thesis Research (3)

*Prereq.: SOCL 3901; Open to seniors who are candidates for a bachelor's degree with honors in sociology.* Supervised research and preparation of a senior thesis.

#### SOCL 3911 Research Practicum in Sociology (1-3)

Prereq.: SOCL 2211 and SOCL 3101; for majors only. May be taken for a max. of 3 sem. hrs. credit. Student registers with a faculty member and, in consultation, selects a research problem. Supervised research experience in sociology, including design, execution and reporting.

#### SOCL 4091 Topics in Sociology (3)

Prereq.: SOCL 2001 or equivalent. May be taken for a max. of 9 sem. hrs. of credit when topics vary.

#### SOCL 4321 The Community (3)

*Prereq.: SOCL 2001 or equivalent.* Classical and contemporary perspectives on the community; theoretical and methodological issues associated with community studies.

#### SOCL 4331 Social Stratification (3)

*Prereq.: SOCL 2001 or equivalent.* Class and rank structure in society; determinants of social class, mobility, and changes in class position of both individuals and groups; attitudinal and behavioral consequences of class position.

#### SOCL 4401 The Family (3)

*Prereq.: SOCL 2001 or equivalent.* The family as a social institution.

#### SOCL 4402 Modeling Communication Within Marital and Family Relationships (3) See CMST 4118.

#### SOCL 4421 Political Sociology (3)

*Prereq.: SOCL 2001 or equivalent.* Social structure and politics.

#### SOCL 4431 Sociology of Education (3)

*Prereq.: SOCL 2001 or equivalent.* Theoretical approaches to understanding the roles of the institution of education, socialization processes, the linkages between education and stratification and educational change.

## SOCL 4441 Sociology of Religion (3)

*Prereq.: SOCL 2001 or equivalent.* Nature of religion; societal and cultural factors in religion; role of religion in social change and in contemporary society.

#### SOCL 4451 Sociology of Medicine (3)

*Prereq.: SOCL 2001 or equivalent.* Sociological analysis of the structure and function of health agencies and occupations; social and cultural factors in the cause and treatment of illness.

#### SOCL 4461 Criminology (3)

*Prereq.: SOCL 2001 or equivalent.* Crime, the criminal justice system and penology.

#### SOCL 4462 Sociology of Youth & Crime (3)

[LCCN: CCRJ 2413, Juvenile Justice] *Prereq.: SOCL* 2001 or equivalent. The sociological study of adolescent deviance and crime; the socio-demographic correlates and social psychological causes of youthful offending and the juvenile justice system.

#### SOCL 4463 Gender and Crime (3)

*Prereq.: SOCL 2001 or equivalent.* Examination of gender as a socially, culturally and historically situated accomplishment and its relationship to criminal offending and victimization.

#### SOCL 4465 Drugs and Society (3)

*Prereq.: SOCL 2001 or equivalent.* An exploration of the net of social relations in which drugs, drug users, drug dealers and drug laws are embedded; involves critical analysis of popular claims about drugs and the development of a sociological understanding of substance use and abuse in the modern U.S.

#### SOCL 4466 Crime Mapping (3)

*Also offered as GEOG 3043.* Fundamentals of crime mapping and crime analysis with spatial data using geographic information systems (GIS).

#### SOCL 4471 Sociology of Law (3)

*Prereq.: SOCL 2001 or equivalent.* Law and social change; evolution of legal institutions; group conflict and law; influence of legal controls and sanctions on human behavior.

### SOCL 4521 Sociology of Gender (3)

*Prereq.: SOCL 2001 or equivalent.* Gender differences in families, education, the workplace and the state; understanding the social, economic and cultural factors that shape the lives of men and women; theoretical analysis of how different women and men experience the social world.

#### SOCL 4531 The Aged in Contemporary Society (3)

*Prereq.: SOCL 2001 or equivalent.* Social, demographic, psychological, cultural and health factors related to the aging process in contemporary society.

### SOCL 4551 Global Society (3)

*Prereq.: SOCL 2001 or equivalent.* Presents central concepts and major perspectives on international development, globalization and world poverty and income inequality.

#### SOCL 4621 Small Groups (3)

*Prereq.: SOCL 2001 or equivalent.* Analysis of groups, their structure and functions.

### SOCL 4701 Population (3)

*Prereq.: SOCL 2001 or equivalent.* Processes that influence size and composition of human populations; determinants and consequences of demographic trends.

# SOCL 7121 Seminar: Classical Sociological Theory (3)

*Prereq.: consent of instructor.* Historical survey of sociology with primary emphasis on European (Marx, Weber and Durkheim) and early American (Mead and Park) sociologists.

# SOCL 7131 Seminar: Contemporary Sociological Theory (3)

*Prereq.: SOCL 7121 or equivalent.* Current theoretical arguments in sociology.

# SOCL 7201 Fundamental Statistics in Sociology (3)

*Prereq.: SOCL 2201 or equivalent.* Introduction to inferential methods in sociological research; emphasis on interpretation and current research.

## SOCL 7203 Advanced Research Methods in Social Science (3)

Also offered as POLI 7963. Prereq.: SOCL 7201 or equivalent. Survey of advanced methodology in the social sciences; emphasis on general linear model and causal models.

# SOCL 7211 Seminar: Methods of Social Investigation (3)

*Prereq.: EXST 7003 or equivalent.* Research methods in the social sciences; interplay of theory and methods of research; formulation of research problems and design; measurement and scaling; sampling; ethics in research; and critiques of social science research.

# SOCL 7213 Specialized Topics in Social Science Methods (2-3)

Also offered as POLI 7964. Prereq.: SOCL 7203 or POLI 7963 or equivalent. May be taken for a max. of 12 sem. hrs. of credit when topics vary.

# SOCL 7351 Seminar: Topics in Rural Sociology (3)

Prereq.: consent of instructor May be taken for a max. of 9 sem. hrs. credit if topics vary. Specialized areas in rural sociology.

#### SOCL 7391 Seminar: Topics in Social Organization (3)

Prereq.: consent of instructor. May be taken for a max. of 12 sem. hrs. credit if topics vary. Specialized areas in social organization.

# SOCL 7491 Seminar: Topics in Social Institutions (3)

Prereq.: consent of instructor May be taken for a max. of 12 sem. hrs. credit if topics vary. Specialized areas in social institutions.

### SOCL 7591 Seminar: Topics in Social Issues (3)

*Prereq.: consent of instructor. May be taken for a max. of 9 sem. hrs. credit if topics vary.* Specialized areas in social issues.

# SOCL 7691 Seminar: Topics in Social Interaction (3)

*Prereq.: consent of instructor. May be taken for a max. of 9 sem. hrs. credit if topics vary.* Specialized areas in social interaction.

# SOCL 7901 Independent Reading and Research (3)

Prereq.: successful completion of at least one year of graduate work.

# SOCL 7902 Independent Reading and Research (3)

*Prereq.: successful completion of at least one year of graduate work.* 

## SOCL 7903 Proseminar in Sociology (1)

Pass-fail grading Required twice of both master's and PhD candidates. Contemporary research and critical issues in sociology.

# **SOCL 8000 Thesis Research (1-12 per sem.)** *"S"/"U"grading.*

#### SOCL 8900 Research in Sociology (1-6)

Open only to students engaged in a specific, organized research project under faculty supervision. Student must be engaged in design and implementation of research and analysis and interpretation of data.

## SOCL 9000 Dissertation Research (1-12 per sem.) "S"/"U"grading.

## Spanish

#### SPAN 1050 Elementary Spanish (4)

For students with previous study of Spanish who did not place into SPAN 1102 through the Spanish Placement Examination. Credit will not be given for this course and SPAN 1101. Material covered in SPAN 1101 is covered in 1050. Supplementary work in language laboratory. Native speakers of Spanish will not receive credit for this course. Basic lexicon and structure of Spanish; emphasis on communicative language use.

#### SPAN 1101 Elementary Spanish (4)

[LCCN: CSPN 1014, Elementary Spanish I] This is a General Education course. For students with no previous study of Spanish. Students with previous study of Spanish should enroll in SPAN 1050. Credit will not be given for this course and SPAN 1050. Supplementary work in language laboratory.

*Native speakers of Spanish will not receive credit for this course.* Basic lexicon and structure of Spanish; emphasis on communicative language use.

#### SPAN 1102 Elementary Spanish (4)

[LCCN: CSPN 1024, Elementary Spanish II] This is a General Education course. *Prereq.: SPAN 1050 or SPAN 1101 or equivalent. Credit will not be given for this course and SPAN 1152. Supplementary work in the language laboratory. Native speakers of Spanish will not receive credit for this course.* Basic lexicon and structure of Spanish; emphasis on communicative language use.

#### SPAN 1152 Intensive Beginning Spanish (4)

[LCCN: CSPN 1026, Elementary Spanish I+II] This is a General Education course. *Prereq.: two years of high school Spanish. Credit will not be given for this course and SPAN 1102. Credit will be awarded for SPAN 1101 upon successful completion of this course with a "C" or better. Native speakers of Spanish will not receive credit for this course.* Review of basic Spanish vocabulary and grammar with emphasis on communicative language use.

#### SPAN 2101 Intermediate Spanish (3)

[LCCN: CSPN 2013, 2026, Intermediate Spanish I] This is a General Education course. *Prereq.: SPAN 1102 or equivalent. Continuation of elementary Spanish. Native speakers of Spanish will not receive credit for this course.* Additional emphasis on reading and writing.

#### SPAN 2102 Intermediate Spanish (3)

[LCCN: CSPN 2023, 2026, Intermediate Spanish II] This is a General Education course. An honors course, SPAN 2104, is also available. Prereq.: SPAN 2101 or equivalent. Continuation of SPAN 2101. Credit will not be given for this course and SPAN 2104. Native speakers of Spanish will not receive credit for this course.

### SPAN 2104 HONORS: Intermediate Spanish (3)

Same as SPAN 2102, with special honors emphasis for qualified students. Credit will not be given for this course and SPAN 2102. Native speakers of Spanish will not receive credit for this course.

### SPAN 2155 Spanish Language and Culture (3)

Prereq.: SPAN 2102 or equivalent. Native speakers of Spanish will not receive credit for this course. Oral and written commentary on a variety of genres and nonprint media in Spanish.

#### SPAN 2156 Intermediate Oral Communication (3)

Prereq.: Permission of department and credit or registration in SPAN 2155. Native speakers of Spanish will not receive credit for this course.

## SPAN 3001 Tutoring Learners of Spanish as a Second Language (1)

*Prereq.: SPAN 2155 or equivalent, EDCI 2001 and concurrent enrollment in EDCI 3001.* A carefully monitored and evaluated Spanish tutoring experience in a local middle or high school under the guidance of the course instructor and a mentoring teacher.

# SPAN 3002 Developing Language Lessons for Spanish as a Second Language (1)

Prereq.: EDCI 3001, SPAN 3001 and concurrent enrollment in EDCI 3136.

*3 hrs. lab/field experiences in multicultural settings.* Under the supervision of a Spanish faculty member and a teacher mentor, teacher candidates in this course will prepare and deliver second language Spanish language lessons that incorporate audio-visual materials and technologyenhanced language learning activities.

## SPAN 3010 Spanish Grammar and Composition (3)

Prereq.: permission of department and credit or registration in SPAN 2155.

#### SPAN 3015 Advanced Oral Communication II (3)

*Prereq.: SPAN 2155 and SPAN 2156 or permission of the department.* Development of listening and speaking competency at the advanced level.

#### SPAN 3020 Literary Analysis (3)

*Prereq.: SPAN 2155, SPAN 2156 and SPAN 3010.* Literary genres and their characteristics; critical reading and commentary of Spanish texts.

# SPAN 3043 Introduction to Latin American Literature I (3)

*Prereq.: SPAN 3020.* Reading and analysis of representative selections from pre-Columbian period through independence.

## SPAN 3044 Introduction to Latin American Literature II (3)

*Prereq.: SPAN 3020.* Reading and analysis of representative literature from independence to the present.

## SPAN 3070 Spanish for Professionals (3)

Prereq.: SPAN 2155 or equivalent and consent of instructor. May be taken for a max. of 6 sem. hrs. of credit when topics vary. Development of language skills for functioning in various professional contexts such as business, medicine or law.

#### SPAN 3071 Survey of Spanish Literature (3)

*Prereq.: SPAN 3020.* Spanish literature from its beginning to the 18th century.

#### SPAN 3072 Survey of Spanish Literature (3)

*Prereq.: SPAN 3020.* Main authors and literary movements from the 18th century to the present.

## SPAN 3073 Advanced Readings on Spanish Civilization (3)

*Prereq.: SPAN 3010.* Ethnological, geographical, historical, political, economic and sociological factors necessary for understanding Spanish culture.

#### SPAN 3074 Advanced Readings on Hispanic-American Civilization (3)

*Prereq.: SPAN 3010.* Parallels SPAN 3073 but focuses on the Hispanic-American countries.

# SPAN 3405 Introduction to Spanish Linguistics (3)

*Prereq.: SPAN 3010 or equivalent. Taught in Spanish.* Introduces students to major linguistic structures of the Castilian language needed to carry out further and more advanced study in Spanish and/or linguistics including phonetics, phonology, morphology, and syntax.

## SPAN 3980 Special Topics in Spanish (3)

Prereq.: either SPAN 3043 or SPAN 3044 or SPAN 3071 or SPAN 3072. May be taken for a max. of 6 hrs. of credit when topics vary.

## SPAN 4003 Instructional Strategies for the Second Language Spanish Classroom (1)

Prereq.: EDCI 3136, SPAN 3002 and concurrent enrollment in EDCI 4003. Teacher candidates will study and participate in activities that incorporate different classroom interactional structures, including teacher-towhole class, task-based group activities and student-tostudent (pair work); candidates will design and conduct Spanish language lessons using learner-centered activities.

## SPAN 4004 Critical Issues in Teaching Spanish as a Second Language: Capstone Course (3)

Prereq.: EDCI 4003, SPAN 4003 and concurrent enrollment in EDCI 4004 and EDCI 4005.

Teacher candidates should be in the last two semesters in completion of the requirement for a major in Spanish. Taught in Spanish. Focus on the consolidation of knowledge about the Spanish language, literature and culture with respect to the teaching of subject content to middle or high school learners.

## SPAN 4005 Structure of the Spanish Language (3)

Also offered as LING 4005. Prereq.: SPAN 3010 or equivalent. Spanish morphology and syntax; structuralist, sociolinguistic and generative-transformational analyses and applications.

#### SPAN 4007 Spanish Medieval Literature (3)

Spanish literature from its beginnings to the end of the 14th century; emphasis on the *mester de juglaría, mester de clerecía* and masterpieces of prose and poetry of the 14th century.

#### SPAN 4010 History of the Spanish Language (3)

*Prereq.: SPAN 3010 or equivalent.* Origins and development of Spanish from its beginnings to the present.

# SPAN 4034 Special Topics in 18th and 19th Century Literature (3)

May be taken for a max. of 6 sem. hrs. of credit when topics vary.

## SPAN 4053 Special Topics in Golden Age Prose (3)

May be taken for a max. of 6 sem. hrs. of credit when topics vary. Spanish Renaissance and Baroque prose.

# SPAN 4063 Spanish Literature from 1898 to 1936 (3)

*Prereq.: SPAN 3071 or SPAN 3072. May be taken for a max. of 6 hrs. of credit when topics vary.* Literature in all genres from the early Modernists to the Avant Garde.

#### SPAN 4064 Spanish Literature Since 1936 (3)

Prereq.: SPAN 3071 or SPAN 3072. May be taken for a max. of 6 hrs. of credit when topics vary. Literature in all genres since the Spanish Civil War.

## SPAN 4100 Women Writers in the Hispanic World (3)

May be taken for a max. of 6 sem. hrs. of credit when topics vary. Examination of selected periods, themes and genres.

## SPAN 4144 Latin American Literature: 1492-1810 (3)

Prereq.: one literature course in Spanish at the 3000-level or consent of instructor. May be taken for a max. of 6 hrs. of credit when topics vary. Topics in colonial Latin American literature from 1492-1810.

## SPAN 4145 Latin American Literature: 1810-1915 (3)

Prereq.: one literature course in Spanish at the 3000 level or consent of instructor. May be taken for a max. of 6 hrs. of credit when topics vary. Topics in Latin American literature from independence through modernismo (1810-1915).

## SPAN 4146 Latin American Literature: 1915-1960 (3)

Prereq.: one literature course in Spanish at the 3000 level or consent of instructor. May be taken for a max. of 6 hrs. of credit when topics vary. Topics in Latin American literature from the historical avante garde to 1960.

### SPAN 4147 Latin American Literature: 1960-Present (3)

Prereq.: one literature course in Spanish at the 3000 level and permission of department. May be taken for a max. of 6 hrs. of credit when topics vary. Topics in Latin American literature from 1960 to the present.

## SPAN 4200 Literature and Culture of Hispanics in the United States (3)

*Texts may be in English or Spanish.* Selected periods, themes and genres; related cultural topics.

### SPAN 4201 Cinema in Spanish (3)

*Prereq.: consent of instructor.* Screening and analysis of representative films from Spain and Latin America and their interrelations with literature.

# SPAN 4400 Introduction to Hispanic Cultural Studies (3)

*Prereq.: Graduate level standing or permission of instructor.* Overview of cultural studies theory on topics such as race, gender, nation, sexuality and mass media as applied to Hispanic cultural texts, including literature, music, art, television and cinema.

## SPAN 4500 Special Topics in Transatlantic Studies (3)

Prereq.: one literature course at the 3000 level or consent of instructor. May be taken for a max. of 6 hrs. of credit when topics vary.

### SPAN 4602 Spanish Phonetics (3)

Also offered as LING 4602. Spanish phonetic systems; corrective and fluency drills in the language laboratory; problems of teaching Spanish pronunciation to English-speaking students.

### SPAN 4603 Applied Spanish Linguistics (3)

*Also offered as LING 4603. Prereq.: SPAN 3010.* Structures and communicative functions of Spanish; classroom applications.

## SPAN 4915 Independent Research in Spanish or Spanish-American Literature (1-3)

May be taken for a max. of 3 sem. hrs. credit. Permission of department required. Readings in Spanish or Spanish-American literature directed by a senior faculty member.

## SPAN 4917 Independent Research in Spanish or Spanish-American Linguistics (1-3)

May be taken for a max. of 3 sem. hrs. credit. Permission of department required. Readings in Spanish or Spanish-American linguistics.

### SPAN 7940 Topics in Spanish American Literature: Beginnings to 19th Century (3)

With consent of department, May be taken for a max. of 6 hrs. of credit when topics vary.

#### SPAN 7946 Topics in Spanish American Literature: 19th Century to the Present (3)

With consent of department, May be taken for a max. of 12 hrs. of credit when topics vary.

# SPAN 7950 Special Topics in Golden Age Spanish Literature (3)

With consent of department, May be taken for a max. of 6 hrs. of credit when topics vary.

## SPAN 7961 Special Topics in Modern Spanish Literature (3)

With consent of department, May be taken for a max. of 12 hrs. of credit when topics vary.

## SPAN 7970 Comparative Studies in Hispanic Literature (3)

With consent of department, May be taken for a max. of 6 hrs. of credit when topics vary.

# SPAN 7980 Special Topics in Hispanic Linguistics (3)

When topics vary, May be taken for a max. of 6 hrs. of credit for the master's degree and 9 hrs. of credit for the doctorate. Topics to be announced.

### SPAN 7982 Spanish Language Variation (3)

May be taken for a max. of six sem. hrs. with consent of department. Socio-linguistic perspectives and methodology in the analysis of Spanish language variation.

### SPAN 7983 Spanish Language Acquisition (3)

Theories and discourse perspectives in second language acquisition.

### SPAN 7984 Spanish in the United States (3)

Spanish in contact with English language use, variation and change; social and individual bilingualism.

### SPAN 7985 Research in Hispanic Linguistics (3)

May be taken for a max. of 6 sem. hrs. of credit with consent of department. Scholarly investigation guided by departmental graduate faculty.

## SPAN 7990 Special Topics in Hispanic Criticism (3)

With consent of department, May be taken for a max. of 6 hrs. of credit when topics vary.

## SPAN 7991 Literature and Politics in the Modern Hispanic World (3)

Study of Spanish and Spanish-American cultural politics through its literary manifestations.

# SPAN 7994 Seminar in Hispanic Cultural Studies (3)

With consent of department, May be taken for a maximum of 6 hrs. of credit when topics vary.

### SPAN 8000 Thesis Research (1-12 per sem.)

"S"/"U"grading.

## **Student Support Services**

#### SSS 1001 Student Success Strategies (2)

*Prereq.: permission of instructor only. 1 hr. lecture; 1 hr. recitation.* Develops *Student Support Services* students' social skills and self-efficacy by presenting non-cognitive principles based on best practices supported by current research.

## **Social Work**

#### SW 2000 Introduction to Social Work (3)

The profession of social work; history, description of programs in contemporary American society; role of the social worker in meeting social needs.

#### SW 2500 Introduction to LGBTQ Studies (3)

This is a General Education Course. Surveys the lesbian, gay, bisexual, transgender, and queer (LGBTQ) experience, existence and influence, in areas of culture, theory, and research.

## SW 3001 Human Behavior and the Social Environment I (3)

*Prereq.*: SW 2000. *Coreq.*: SW 3004 and SW 3005. Sociobehavioral science base for generalist social work practice with clients from conception through adolescence.

## SW 3002 The Child and the Community (3)

Common and particular needs of children in the community; social welfare services developed by communities for care and training of children.

#### SW 3003 Skills in Working with People (3)

Basic skills in working with people; understanding attitudes; use of community resources.

### SW 3004 Human Diversity and Oppression (3)

*Prereq.*: SW 2000. *Coreq.*: SW 3001 and SW 3005. Examining human diversity and oppression and engaging diversity and difference in practice.

## SW 3005 Practice with Individuals and Families (3)

*Prereq.:* SW 2000. *Coreq.:* SW 3001 and SW 3004. Introduction to social work theory, values, and intervention skills common to social work practice with individuals and families.

#### SW 3006 Practice with Groups (3)

*Prereq.*: SW 2000, SW 3005. *Coreq.*: SW 3008 and SW 3103. Social work practice with treatment and task groups.

#### SW 3007 Juvenile Delinquency (3)

Nature and extent; socio-logical and psychological factors in causation and treatment of delinquent children; how communities are organized to help troubled youth and to prevent inception and spread of juvenile problems.

#### SW 3008 Human Behavior and the Social Environment II (3)

*Prereq.*: SW 2000, SW 3001. *Coreq.*: SW 3006 and SW 3103. Socio-behavioral science base for generalist social work practice with clients from late adolescence to adulthood.

### SW 3011 Community Services and the Aged (3)

The aged population and their needs; available resources and services in the community; assisting the aged in obtaining services; implications for the future.

#### SW 3103 Social Welfare History & Policy (3)

*Prereq.*: SW 2000. *Coreq.*: SW 3006 and SW 3008. Historical perspective of social welfare history and policy.

# SW 4007 Practice with Organizations and Communities (3)

*Prereq.: SW 2000, SW 3005, SW 3006. Coreq.:* SW 4009. Social work practice with organizations and communities.

#### SW 4009 Social Work Research Methods (3)

*Prereq.*: SW 2000. *Coreq.*: SW 4007. Foundation research knowledge and skills representative of the social work profession, mission, and ethical values.

## SW 4010 Behavioral Health Assessment in Social Work (3)

*Prereq.: SW 2000.* Examining current state of knowledge of mental disorders and behavioral health assessment.

#### SW 4070 Special Topics in Social Work (3)

May be taken for a max. of 9 sem. hrs. of credit when topics vary. Selected topics on social work practice and social welfare services.

#### SW 4099 Individual Readings in Corrections (3)

Prereq.: 2.50 GPA, 60 hrs. of course work, consent of instructor. May be taken for a max. of 6 hrs. of credit.

#### SW 4100 Field Internship (9)

*Prereq.:* SW 3001, SW 3004, SW 3005, SW 3006, SW 3008, SW 3103, SW 4007, and SW 4009. Coreq.: SW 4200. Field internship integrating academic coursework with social work practice under the guidance of a field supervisor.

### SW 4200 Integrative Seminar (3)

*Prereq.:* SW 3001, SW 3004, SW 3005, SW 3006, SW 3008, SW 3103, SW 4007, and SW 4009. Coreq.: SW 4100. Integration of social work practice skills, theory, policy, research, ethics, and diversity in student's field of practice.

#### SW 4500 Crisis Intervention (3)

Introduction to major theories and research that describes and explains the range and complexity of problems that may emerge from natural or other disaster scenarios.

# SW 7001 Human Behavior and the Social Environment I (3)

*Prereq.: majors only.* Socio-behavioral science base of social work practice; interrelationship of biological, psychological, social and cultural determinants of human behavior; major biopsychosocial developmental achievements and adaptations of human beings from conception through death.

# SW 7002 Human Behavior and the Social Environment II (3)

*Prereq.: credit or registration in SW 7001; majors only.* Social science base of social work practice; social systems in which human beings develop and live; focus on research related to social interaction.

### SW 7003 Social Welfare History and Policy (3)

*Prereq.: majors only.* Development of social work as a profession; evolution of social welfare policies and programs; nature of social policy and policy formulation.

## SW 7004 Human Diversity and Oppression (3)

*Prereq.: majors only.* Social dynamics of human oppression; effects of institutional discrimination, inequality, stigma and prejudice stemming from racism, sexism, ageism and classism; implications of human oppression and multiculturalism for human behavior, social work practice and social policy.

### SW 7005 Social Work Practice I (3)

*Prereq.: majors only.* Introduction to social work theory, principles and intervention skills common to social work practice with individuals and families; psychosocial perspectives in intervention.

### SW 7006 Social Work Practice II (3)

*Prereq.: credit or registration in SW 7005. Majors only.* Techniques of working with various types of groups including treatment groups and planning action groups; community organization techniques.

### SW 7007 Foundation Field Internship I (3)

Prereq.: majors only and credit for or concurrent registration in SW 7005. Pass-fail grading. \$100 internship fee. Application of foundation knowledge, skills, values and ethics to practice in an approved internship agency. 240 clock hours.

### SW 7008 Foundation Field Internship II (3)

Prereq.: majors only and credit for or concurrent registration in SW 7006 & SW 7007. Pass-fail grading. \$100 internship fee. Continuation of SW 7007. Application of knowledge, skills, values, and ethics to practice in an approved internship agency. 240 clock hours.

### SW 7009 Social Work Research I (3)

*Prereq.: majors only.* Standards and methods of scientific inquiry applied in social work research; concept formulation; research design; sources, collection and presentation of data.

### SW 7010 Differential Diagnosis (3)

*Prereq.: majors only.* Diagnostic and treatment tools for examining the functionality of human behavior in the context of diverse social systems.

## SW 7200 Integrative Colloquium in Social Work I (3)

*Prereq.: admission to the PhD program in social work or consent of instructor.* Broad-ranging analysis and discussion of problems and issues in the social work profession.

# SW 7201 Integrative Colloquium in Social Work II (3)

*Prereq.: admission to the PhD program in social work or consent of instructor.* Broad-ranging analysis and discussion of problems and issues in the social work profession.

## SW 7202 Issues and Research Problems in Social Policy (3)

*Prereq.: admission to the PhD program in social work or consent of instructor.* Issues and problems in social welfare policy; research focus on policy formulation.

## SW 7204 Issues and Research Problems in Social Work Intervention (3)

*Prereq.: admission to the PhD program in social work or consent of instructor.* Social work intervention with individuals, families, groups and communities; formulation and development of problem-solving research agendas.

# SW 7205 Pedagogical Issues in Social Work Education (3)

*Prereq.: admission to the PhD program in social work or consent of instructor.* Enhancement of pedagogical knowledge, skills and values; emphasis on teaching for the social work profession.

### SW 7206 Research Practicum (3-9)

Prereq.: admission to the PhD program in social work or consent of instructor; and at least one of EXST 7003 or EXST 7013. No more than 6 hrs. May be taken in one semester. Hands-on supervised research experience; demonstration of collaborative and/or independent research.

### SW 7207 Integrative Seminar (3)

Prereq.: foundation courses in PhD program and at least one research methods course, plus consent of instructor. Development of research questions and hypotheses, and initial drafts of the dissertation proposal, including introduction, literature review and methodology sections.

### SW 7305 Grief & Bereavement (3)

Contemporary theories of grief and loss; cultural, ethnic, and religious differences in beliefs and practices surrounding grief and dying; ethical issues related to social work practice with end-of life issues.

## SW 7306 Advanced Social Work Treatment of Individuals (3)

*Prereq.: SW 7006.* Differential diagnostic assessment and treatment of individuals with complex intrapersonal problems.

# SW 7307 Direct Practice with Children and Adolescents (3)

*Prereq.: completion of all foundation courses.* Maladaptive patterns of behavior in children and adolescents; intervention strategies with children, parents, families and groups.

## SW 7309 Advanced Methods of Group Treatment (3)

*Prereq.: consent of instructor.* Diagnostic and treatment procedures used in intensive group therapy.

### SW 7402 Social Work in Corrections (3)

Social work processes in corrections; population served; existing and needed delivery systems for rehabilitative services; influence of the host setting.

### SW 7403 Social Work and Aging (3)

Demographic characteristics of the aging population; aging as a developmental process with economic, biological, psychological and socialization aspects; impact of legislative and social service systems.

### SW 7404 Social Work Practice in Schools (3)

Implementation of social work values, purposes and methods in a school setting.

## SW 7405 Marital and Family Treatment in Social Work (3)

*Prereq.: completion of all foundation courses.* Identification and modification of dysfunctional transactional patterns; facilitating communication; improving the quality of marriage and family relations.

### SW 7406 Social Work with LGBTQ People (3)

*Prereq.: SW 7004 and SW 7005.* Development of students' professional competence with lesbian, gay, bisexual, transgender, and queer (LGBTQ) people. Exploration of social work practices at the micro, mezzo and macro levels and across social, political and economic realms.

### SW 7412 Social Work in Medical Care (3)

Nature of social work practice in the field of medical care; medical care system and consumer problems; role of medical social workers.

### SW 7415 Child/Family I (3)

Theories and skills of assessment and communication with children and families.

### SW 7416 Child/Family II (3)

*Prereq.: completion of all foundation courses.* Legal and administrative functions in working with children and families.

## SW 7455 Management in Human Services (3)

*Prereq.: completion of all foundation courses.* Management used in the effective provision of social services; techniques of modern management; interdisciplinary and practical approaches; unique aspects of human service management; development of critical attitudes and management skills.

### SW 7501 Social Work Research II (3)

*Prereq.: completion of all foundation courses; majors only.* Types of research, designs and instruments used in social work; research processes from specification to hypotheses and collection of data.

### SW 7502 Advanced Field Internship I (3)

Prereq.: completion of all foundation courses; majors only and credit for or concurrent registration in SW 7505. Passfail grading. \$100 internship fee. Supervised internship in an approved agency setting where advanced knowledge, skills, values and ethics are applied in the practice setting. 240 clock hours.

### SW 7503 Advanced Field Internship II (3)

Prereq.: completion of all foundation courses; majors only and credit for or concurrent registration in SW 7502 & SW 7505. Pass-fail grading. \$100 internship fee. Continuation of SW 7502. Supervised internship in an approved agency setting where advanced knowledge, skills, values and ethics are applied in the practice setting. 240 clock hours.

### SW 7504 Advanced Social Policy (3)

*Prereq.: completion of all foundation courses; majors only.* Dimensions and patterns of social policy; evolution and design of provisions and services; current issues, problems and trends.

### SW 7505 Advanced Direct Practice (3)

*Prereq.: completion of all foundation courses. Majors only.* Advanced methods of effective individual, family and group treatment of systemic issues in a holistic perspective.

## SW 7506 Community and Agency Contexts for Direct Practice (3)

*Prereq.: completion of all foundation courses. Majors only.* Community, organizational and social aspects of social work practice; indirect practice skills associated with effective social work practice in multiple service environments.

### SW 7801 Family Violence (3)

Topics in family violence; their relevance to social work practice; program development and interventive approaches and issues.

## SW 7803 Grant and Proposal Writing for Human Service Organizations (3)

*Prereq.: completion of all foundation courses.* Methods of accessing federal, state and private funds; developing grant and contract proposals.

## SW 7804 Addictive Disorders in Contemporary Society (3)

Topics related to addictive disorders in contemporary society; their relevance to social work practice.

## SW 7805 Co-occurring Substance Use and Mental Disorders: Assessment and Intervention (3)

Co-occurring substance use and mental disorders and their prevalence and relevance to social work practice, policy and program development and research.

### SW 7807 Special Topics in Social Work (3)

Prereq.: consent of instructor. May be taken for a max. of 12 sem. hrs. of credit when topics vary. Selected topics on social work and social welfare theory, practice and policy.

## SW 7905 Independent Reading and Research in Social Work Practice (3)

*Prereq.: consent of instructor. May be repeated once by PhD students if topics vary.* 

# SW 7906 Independent Reading and Research in Social Welfare Policy (3)

*Prereq.: consent of instructor. May be repeated once by PhD students if topics vary.* 

### SW 7999 Research Project: Nonthesis (3)

*Prereq.: completion of foundation courses and consent of instructor. Pass-fail grading.* Research project, state of knowledge paper or position paper.

### SW 8000 Thesis Research (1-12 per sem.)

Prereq.: completion of all foundation courses and consent of instructor. "S"/"U"grading.

### SW 9000 Dissertation Research (1-12 per sem.)

Prereq.: successful completion of the General Examination "S"/"U"grading.

## **Textiles, Apparel & Merchandising**

## TAM 1232 Digital Illustration for Apparel Designers (3)

Application of computer-aided design technology to the design and presentation of textile and apparel collections.

### TAM 2032 Introductory Apparel Design (3)

*Prereq.: majors only. 1 hrs. lecture; 4 hrs. lab.* The design process; art elements and principles applied to aesthetic, functional and structural design of textile and apparel products; introduction to fashion illustration and design.

### TAM 2037 Apparel Structure and Fit (3)

*Prereq.: for students in the Apparel Design concentration only or consent of instructor; credit for or registration in TAM 2040. 6 hrs. lab.* Fundamental principles of garment assembly and the relationships between garment design, fabric characteristics and production processes; analysis of fit; alterations.

### TAM 2038 Apparel Structure and Fit II 3

*Prereq.*: TAM 2037 *6 hrs. lab.* Traditional and contemporary techniques for the construction and design of tailored and non-tailored garments.

### TAM 2040 Textile Science (3)

Basic physical, biological and chemical characteristics of fibers, yarns and fabrics; selection, maintenance and performance of textiles.

### TAM 2041 Textile Science Laboratory (1)

*Prereq.: credit or registration in TAM 2040. 3 hrs. lab.* Introduction to basic physical and chemical testing of textiles.

# TAM 2042 Fashion: Trends, Analysis and Assortments 3

Study of processes, techniques of identifying socio-cultural, technological, and economic trends, and methods for determining factors effecting trends in fashion and related industries. Apply identified key trend information and knowledge of consumer behavior to understand the importance of fashion/accessory assortment development; hands-on learning and practices.

## TAM 2044 Early Experience in Textile/Apparel Industry (1)

*Pass/fail grading. 4 hrs. practicum; majors only. 32 hrs. of supervised experience.* Pre-internship work in a component of the textile/apparel industry. Arranged on individual basis for students with limited or no industry experience.

### TAM 2045 The Fashion Industry (3)

Interrelationships of design, production and distribution; historical aspects and cyclical nature of fashion.

## TAM 2091 Special Topics in Textiles, Apparel & Merchandising (1-3)

Prereq.: consent of director for majors in textiles, apparel & merchandising.

May be taken for a max. of 6 hrs. of credit when topics vary. Contemporary issues in Textiles, Apparel & Merchandising of interest to special professional and business groups.

## TAM 2232 3D Drafting and 3D Printing for Apparel Design 3

*Prereq.*: TAM 2037 *1 hr. lecture, 4 hrs. lab.* Application of advance 3D technology to the creation of apparel related products. Prototype development and assessment.

### TAM 3022 Apparel Quality Analysis 3

*Prereq.*: TAM 2040 TAM 2045 *1 hr lecture: 4 hrs lab.* Indepth analysis of ready-to-wear apparel marketed at various price points.

## TAM 3030 Field Study in Textiles, Apparel and Retailing (3)

May be taken for a max. of 6 hrs. of credit when field site varies. Offered through Continuing Education. 28 hrs. of on-campus seminars. Fee to cover expenses. 2 hrs. lecture; 3 hrs. lab. Structured educational experiences in major industry centers in the U.S. and abroad.

# TAM 3032 Textile and Apparel Product Development (3)

*Prereq.*: TAM 3022 Processes and issues related to development of textiles and apparel products for consumers.

# TAM 3037 Intermediate Apparel Product Design (3)

*Prereq.: TAM 2038*. 6 hrs. lab. Principles and application of two-dimensional or flat pattern design; development of foundation blocks for use in designing various garment styles and details; conceptualization and execution of original garment design.

# TAM 3042 Apparel Merchandise Buying and Management (3)

*Prereq.: majors only; TAM 2045 and MATH 1022, MATH 1431 or EXST 2201.* Concepts and theories in retailing, consumer behavior, apparel buying and management; role and responsibilities of merchandise buyers; domestic and foreign merchandise resources and negotiation.

# TAM 3043 Apparel Merchandising Strategies and Assortment Planning (3)

*Prereq.: majors only;* TAM 2042, TAM 3042 and computer *literacy;* 2 hrs. lecture; 2 hrs. lab. Assortment planning and sales strategies; advanced quantitative concepts and procedures used in apparel buying; management and interpretation of data related to merchandising and sales.

## TAM 3045 Visual Merchandising and Promotion Strategies (3)

*Prereq.: majors only; TAM 2045.* Display elements and techniques; visual merchandising; special events strategies; public relations; Internet promotions.

### TAM 3046 3D Visual Retailing Simulation (1)

*Prereq.: TAM 3043, TAM 3045. 2 hrs. lab.* Students will study industry specific software for the development of store layouts and visual merchandising. Building on the concepts learned in TAM 3045 Visual Merchandising and Promotion Strategies, emphasis will be placed on the creation of merchandising directives for innovative product display.

## TAM 3050 Sustainability for Apparel and Textiles (3)

*Prereq.: TAM 2040, TAM 2045.* Brief review of contemporary environmental, social, and economic issues associated with industry practice will be followed by a broad exploration of sustainable design theories, which may be applied in the apparel and textiles fields, from eco-efficiency to approaches that demand social change.

# TAM 3091 Readings and Research in Textiles, Apparel & Merchandising (1-6)

Prereq.: Open to advanced students of high academic standing by consent of director. May be taken for a max. of 6 hrs. of credit. Students are responsible for registering with a faculty member with whom they will select the area of reading and research.

### TAM 3230 Pattern Design with Computer Application (3)

*Prereq.: TAM 3037. 6 hrs. lab.* Application of twodimensional pattern making principles to varied garment styles and details; design and execution of original garment design; introduction to proprietary computer software.

### TAM 3232 Apparel Design Studio (3)

*Prereq.: TAM 2032. 1 hr. lecture; 4 hrs. studio.* Fashion illustration techniques; adaptation of inspirational themes to designs for diversified apparel markets; pre-portfolio development.

# TAM 4034 Textile and Apparel Product Evaluation (3)

*Prereq.: TAM 2041. 2 hrs. lecture; 2 hrs. lab.* Fabric and apparel structure and their relationships to performance and end-use characteristics; textile and apparel product standards and specifications; standard test methods for evaluating physical, aesthetic comfort, performance and functional aspects.

### TAM 4037 Advanced Apparel Product Design (3)

Prereq.: TAM 3230. 6 hrs. lab. Principles and application of three-dimensional pattern design.

### TAM 4041 History of Textiles (3)

Cultural, functional and technological developments of textiles by selected periods and countries.

### TAM 4043 Advanced Textiles (3)

*Prereq.: TAM 2041. 2 hrs. lecture; 2 hrs. lab.* Characteristics of natural and manufactured textile fibers; physical and chemical modifications to meet consumer needs; textile dyes and finishes; methods of fiber identification and chemical testing of textiles.

## TAM 4044 Global Textile and Apparel Economics (3)

*Prereq.: TAM 3032, ECON 2030.* Application and analysis of economic concepts and principles associated with the textiles and apparel industry; overview of global economics and contemporary trade policy.

## TAM 4045 Synthesis: Textile and Apparel Product Processes (3)

*Prereq.: TAM 4037. 1 hr. lecture; 4 hrs. lab.* Multifunctional team approach to creative problem solving; apparel product design, development, evaluation and presentation using advanced pattern making techniques and technology.

# TAM 4046 Advanced Topics in Apparel Merchandising (3)

*Prereq.: TAM 3032 and TAM 3043.* Application of principles of product development, buying and management of apparel merchandise; current industry issues and trends; emphasis on theory and policy related strategies.

# TAM 4047 Internship in Textiles, Apparel and Merchandising (3 or 6)

Offered in Su Prereq.: GPA of at least 2.30 on all TAM classes taken at LSU and permission of department; participation in orientation workshop prior to enrollment. MKT 3401. Merchandising concentration: credit in TAM 3043 and TAM 3045; apparel design concentration: credit in TAM 3045, TAM 3230, and TAM 3232,; textile science concentration: TAM 4043. May be taken for a max. of 9 sem. hrs. of credit. Each hour of credit requires 40 hrs. of supervised experience. Not for graduate credit. Supervised professional experience designed to integrate academic learning with professional practice.

## TAM 4070 Entrepreneurship in Textiles, Apparel & Merchandising (3)

*Prereq.: MKT 3401.* Application of principles of entrepreneurship with an emphasis on home-based and/or micro-businesses; case studies of successful entrepreneurs.

## TAM 4071 History of Dress and Adornment Prior to 1800 (3)

Emphasis on styles of western civilization; how dress functions for individuals within culture and society; relationships of gender, environment, technology, economics, religion and aesthetics to dress.

## TAM 4072 History of Dress and Adornment After 1800 (3)

Emphasis on styles of western civilization; how dress functions for individuals within culture and society; relationships of gender, environment, technology, economics, religion and aesthetics to dress.

## TAM 4091 Special Topics in Textiles, Apparel & Merchandising (1-3)

Prereq.: consent of director for majors in textiles, apparel & merchandising. May be taken for a max. of 6 sem. hrs. of credit when topics vary. Lectures and/or laboratories on selected topics not covered in other textiles, apparel & merchandising classes.

### TAM 7030 Creativity in Product Development (3)

*Prereq.: permission of instructor. 1 hr. lecture; 4 hrs. lab.* Examination, enhancement and application of creativity in the product development process with interdisciplinary application. Exploration of creative innovators and their design processes resulting in design, development and execution of original product.

## TAM 7031 Social-Psychological Theories of Dress, Appearance and Fashion (3)

Examination and analysis of interdisciplinary and theoretical approaches to dress, appearance and fashion as a social and economic force.

# TAM 7032 Comparative Studies in Dress and Culture (3)

*Also offered as ANTH 7032.* Relationship between people and dress in different cultural settings, e.g., environment, religion, ethnicity, gender and aesthetics; impact of cultural change and western culture on world dress, ethnic and fold traditions in dress.

# TAM 7036 Apparel Merchandising and Global Expansion (3)

Internationalization of apparel merchandising; examination of theoretical foundations, principles and applications within select international settings; development of international apparel merchandising strategies; assessment of global issues that affect apparel merchandising.

# TAM 7037 Consumer Behavior in the Apparel Merchandising Environment (3)

Examination of consumer behavior theories and their applications to apparel purchase and patronage decisions and merchandising research.

## TAM 7038 Merchandise Trends and Practices in Apparel and Textile Industry (3)

Identify the current trends and issues in fashion merchandising such as e-tailing, multichannel retailing, retail technology, environmental sustainability, globalization, and experiential retailing. Introduce the theories, concepts, and processes related to management level problems.

#### TAM 7039 Merchandising Theory Application and Strategy Implementation in Apparel and Textile Industry (3)

Integration of marketing, merchandising and management theories, strategies, models, and frameworks. Application of theories and implementation of strategies relevant to apparel and industries.

## TAM 7041 Introduction to Research in Textiles, Apparel Design and Merchandising (3)

Introduction to research and literature in textiles, apparel design and merchandising.

## TAM 7043 Seminar: Textiles, Apparel Design and Merchandising (1)

"S/U" grading. May be taken for a max. of 3 hrs. of credit if topics vary. Reports and discussion of current literature and research.

## TAM 7044 Selected Topics in Textiles, Apparel Design and Merchandising (3)

*Prereq.: consent of instructor. May be taken for a max. of 6 hrs. of credit when topics vary.* Analysis and discussion of selected research and creative topics.

## TAM 7047 Modern Fiber Science and Technology (3)

2 hrs. lecture; 2 hrs. lab. New techniques for obtaining fiber forming polymers derived from renewable resources, such as lyocell and plant derived polyesters; examination of polymeric materials used for the development of high performance fibers for space and other industrial applications.

## TAM 7048 Thermal Characterization of Fibers and Polymers (3)

2 hrs. lecture; 2 hrs. lab. Analysis and characterization of fibers and polymers using thermal, thermo-electrical and thermo-mechanical techniques; examination of textile fibers and fabrics including bio-derived materials and classical specimens.

#### TAM 7049 Advanced Individual Field Experience In Textiles, Apparel Design and Merchandising (3)

*Prereq.: or coreq.: TAM 7091 or consent of instructor. May be taken for a max. of 6 hrs. of credit.* Advanced individual, supervised, field-based study in selected areas of textiles, apparel design and merchandising; emphasis on analysis, synthesis and application of research data and contemporary practices within selected businesses, industries, agencies and institutions.

# TAM 7056 Fashion, Luxury and Lifestyle Brands (3)

Understand and apply the principles and practices of fashion brands, and branding in connection with the fashion, luxury goods and lifestyle consumption and merchandising/retailing in a global marketplace; develop the skills required to effectively conduct comprehensive and insightful analyses for merchandising, and retailing decision.

## TAM 7090 Research Methods in Textiles, Apparel and Merchandising (3)

Philosophy of human ecology research; issues and trends; design and methodology.

## TAM 7091 Independent Reading and Research in Textiles, Apparel and Merchandising (1-6)

*Prereq.: permission of department. May be taken for a max. of 6 hrs. of credit.* Directed individual reading and research in a selected area of textiles, apparel and merchandising.

## TAM 7092 Textiles, Apparel and Merchandising Research Seminar (1)

"P"/"F" grading. May be taken for a max. of 3 sem. hrs. of credit. 2 sem. hr. required of all doctoral students in textiles, apparel and merchandising. Research reports and discussion of current topics and issues in textiles, apparel and merchandising.

# TAM 7900 Research and Project Development in Textiles, Apparel and Merchandising (1-12)

Prereq.: permission of department. "S"/"U" grading. May be repeated for a max. of 15 sem. hrs. credit. Credit will not be given for this course and TAM 8000. Directed research and focused project development under the supervision of the major professor.

### TAM 8000 Thesis Research (1-12 per sem.)

Prereq.: permission of department. "S"/"U"grading. Credit will not be given for this course and TAM 7900.

### TAM 9000 Dissertation Research (1-12 per sem.)

Prereq.: permission of department. "S"/"U"grading.

## TAM 9091 Independent Research for Doctoral Students (1-6 per sem.)

Prereq.: must be a doctoral student and have consent of instructor and approval of the student's full doctoral committee for each repetition of the course. This course may be repeated for credit; a max. of 15 sem. hrs. is allowed toward doctoral requirements.

## Theatre

### THTR 1001 Practical Elements of Stagecraft (3)

[LCCN: CTHE 2303, Stagecraft] Introduction to the skills and techniques used by artists and craftsmen in realization of the technological elements of all areas of live production, including training sessions in each of the main areas and departmental productions.

### THTR 1010 Apprentice Seminar (1)

*Prereq.: Majors only.* Anticipated skill development and outcomes for the theatre student's academic career. Students will be required to develop an understanding of the departmental and university resources and procedures guiding and supporting their academic path, progress their ability to reflect on and articulate their goals for training and production, and to begin the cultivation of professional readiness through research on professional practices as well as resume and portfolio development.

### THTR 1020 Introduction to Theatre (3)

[LCCN: CTHE 1013, Introduction to Theatre] This is a General Education course. *Credit will not be given for this course and THTR 1021*. The arts of the theatre and its artists; acting, directing, costume and scenic design; playwriting, architecture.

### THTR 1021 HONORS: Introduction to Theatre (3)

This is a General Education course. *Same as THTR 1020, with special emphasis for qualified student Credit will not be given for this course and THTR 1020.* 

### THTR 1025 Acting I: Introduction to Acting (3)

[LCCN: CTHE 2103, Acting I] Exploration, through theatre games and movement training, of the actor's problems of intention, listening, physical expression of emotion, concentration and mime.

### THTR 1029 Stage Movement I (3)

2 hrs. lecture; 2 hrs. lab. Beginning stage movement for the actor, including flexibility, realignment, spatial awareness, gesture and body com-position and physical characterization.

### THTR 1127 Beginning Modern Dance (1)

May be taken for a max. of 2 hrs. of credit. 3 hrs. lab.

### THTR 1131 Beginning Ballet (1)

May be taken for a max. of 2 hrs. of credit. 3 hrs. lab.

### THTR 1153 Beginning Jazz Dance (1)

May be taken for a max. of 2 hrs. of credit. 3 hrs. lab.

### **THTR 1227 Intermediate Modern Dance (1)** *May be taken for a max. of 2 hrs. of credit. 3 hrs. lab.*

### THTR 1231 Intermediate Ballet (1)

May be taken for a max. of 2 hrs. of credit. 3 hrs. lab.

### THTR 1253 Intermediate Jazz Dance (1)

May be taken for a max. of 2 hrs. of credit. 3 hrs. lab.

# THTR 1701 Introduction to Entertainment Industries (3)

An introduction to the structure and internal organization of the entertainment industries. Attention is given to practical application based on theoretical and historical foundations. This course also serves as an introduction to the uses and influences of technology in entertainment with attention to innovations, history, and technology's effects on the global entertainment industries.

### THTR 1800 Introduction to Dance (3)

[LCCN: CDNC 1013, Dance Appreciation] This is a General Education course. Dance as a performing art.

### THTR 1804 Dance Theatre (2)

May be taken for a max. of 4 hrs. of credit. Admission by audition. 6 hrs. lab. Participation in dance theatre.

## THTR 2001 Portfolio Preparation for the Theatre (3)

Developing the materials and skills necessary to present students' education and experience in theatre to employers in the most effective manner.

## THTR 2008 Introduction to Writing Drama (3) See ENGL 2008.

### THTR 2010 Journeyman Seminar (1)

*Prereq.*: THTR 1010; majors only. Focus on the communication and interpersonal skills needed to communicate and interact effectively with collaborators on a performing arts project.

### THTR 2020 Stage Management (3)

*Prereq.: THTR 1001.* Introduction to the duties and responsibilities of the theatrical stage manager; emphasis on the stage manager's place in the theatrical organization and how he/she interacts with other members of the production team.

### THTR 2021 Directing I (3)

Basic principles of script analysis, characterization and scene visualization.

### THTR 2022 Introduction to Theatrical Design (3)

This is a General Education course. Basic principles in designing lighting, costumes, scenery and sound.

## THTR 2023 Stage Makeup (3)

Fundamentals of straight and character makeup; laws governing line, color, light and shade.

### THTR 2024 Live Entertainment Technology (3)

This is a General Education course. Introduction to all areas of theatre technology and how they affect production; areas to be covered include: production/stage management, scenery, costumes, stage properties, lighting and sound.

### THTR 2025 Acting II: Fundamentals of Acting (3)

[LCCN: CTHE 2113, Acting II] *Prereq.: THTR 1025*. Principles involved in a workable theory of acting and their application through development of technical skill.

### THTR 2026 Theatre Practicum I (1)

*May be taken for a max. of 3 sem. hrs. of credit.* Participation in an approved technical position in the production of a play produced by the Department of Theatre.

### THTR 2027 Stage Voice: Basic Techniques (3)

[LCCN: CTHE 2203, Voice for the Stage] *Open to Theatre majors only*. Development of the speaking voice through physical awareness, breath release, phonation, resonance and articulation to meet theatre performance standards.

### THTR 2028 Introduction to Dramatic Literature (3)

This is a General Education course. *Credit will not be given for this course and THTR 2128. Not open to Theatre majors.* A study of representative plays from the Greek era to the present.

### THTR 2031 Aerial Practice I (1)

*Prereq.: permission of instructor. May be repeated twice for credit.* Methods and practice of beginning techniques used on aerial apparatus.

## THTR 2032 Survey of International Performing Arts (3)

Prereq.: permission of instructor. Offered during the Academic Program Abroad to an International Performing Arts Festival such as Edinburgh Festival Fringe or the Avignon Theatre Festival. Research, observation and comparison of a variety of international performances and reporting the analysis in multimedia.

## THTR 2128 HONORS: Introduction to Dramatic Literature (3)

Same as THTR 2028, with special emphasis for qualified students. Credit will not be given for this course and THTR 2028. Not open to Theatre majors.

### THTR 2130 Script Analysis (3)

Methods of studying playscripts in preparation for their productions on stage.

#### THTR 2733 Studio Production (3)

*Prereq.: THTR 1701. 2 hrs. lecture, 2 hrs. lab.* A study of the basic principles and techniques for writing, producing, and directing fiction for entertainment/studio programs either for television or web/internet/new media streaming outlets.

#### THTR 2735 Film and New Media Production I (3)

*Prereq.: THTR 1701. 2 hrs. lecture, 2 hrs. lab.* An examination of the basics of film production including preproduction which includes story writing, scripting, storyboarding, budgeting and casting; production which includes directing, lighting and shooting; and postproduction which includes editing and sound.

#### THTR 2830 Technical Drafting for the Theatre (3)

*Prereq.: THTR 1001. 2 hrs. lecture; 2 hrs. lab.* Drafting conventions and techniques used for depicting common theatrical elements.

### THTR 3025 Acting III (3)

*Prereq.: THTR 1029; THTR 2025 and THTR 2027. Open only to theatre performance majors. 2 hrs. lecture; 3 hrs. lab.* Characterization and scene work.

## THTR 3026 Introduction to Acting for the Camera (3)

Prereq.: THTR 2025. Open only to Theatre Majors with a concentration in Performance or Film and Television. 1 hr. *lecture; 5 hrs. lab.* Introduction to theory and techniques used when acting on camera and the similarities and differences between on camera and on stage performance.

## THTR 3027 Stage Voice: Advanced Techniques (3)

*Prereq.: THTR 2027.* Continued development of the actor's vocal craft.

#### THTR 3029 Stage Movement II (3)

*Prereq.: THTR 1029. Continuation of THTR 1029.* Specialized activities in character types, rhythm and tempo, mask work and basic stage combat.

### THTR 3032 Viewpoints and Ensemble (3)

*Prereq.: permission of instructor*. Method and practice in Viewpoints and other ensemble techniques as it relates to performer training and the creation of physical theatre.

#### THTR 3120 Theatre History and Literature I: Ancient Greece through Renaissance (3)

Survey of theatre history and literature from Ancient Greece through the Renaissance.

## THTR 3121 Theatre History and Literature II: Renaissance through Nineteenth Century (3)

Survey of theatre history and literature from the Renaissance to the late nineteenth century.

## THTR 3122 Theatre History and Literature III: 1875 to the Present (3)

Survey of theatre history and literature from the late nineteenth century to present.

## THTR 3123 Costume Construction Techniques for the Stage (3)

*6 hrs. lab.* Study of the skills and techniques unique to the construction of costumes for the stage; emphasis on historical construction, cutting, finishing, design analysis and adaptation for stage performance.

#### THTR 3124 Costume Crafts (3)

*Prereq.: THTR 3123; 2 hrs. lecture; 2 hrs. lab.* Skills used in construction/modification of costume craft items; includes leatherwork, wig styling, hat making, shoe alteration and construction of costume props.

### THTR 3125 Tutus and Dancewear Construction (3)

*6 hrs. lab.* Skills and techniques unique to the construction of costumes for dance; methods of working with stretch fabric and tutu construction; includes construction, cutting, fitting, design analysis and adaptations necessary for dance performance.

#### THTR 3126 Theatrical Rendering (3)

*Prereq.: THTR 2022 or permission of instructor. 2 hrs. lecture; 2 hrs. lab.* Drawing and painting scenery and costumes for the theatre; emphasis in color, pattern, texture, scale and proportion.

## THTR 3134 Scenery and Properties Construction (3)

*Prereq.: THTR 1001 or permission of instructor. 2 hrs. lecture; 2 hrs. lab.* Examination and application of construction techniques and methodology as they apply to theatrical scenery and properties.

## THTR 3320 Introduction to Arts Management (3)

Overview of the organizational structure and operations of arts and cultural institutions.

#### THTR 3340 Arts Marketing (3)

Lecture, discussion and case analysis of marketing concepts for arts and other creative industries.

### THTR 3435 Scene Painting I (3)

*Prereq.: THTR 1001 or permission of instructor, 2 hrs. lecture, 2 hrs. lab.* Contemporary scene painting for the stage; emphasis on tools, materials, basic techniques and color theory.

### THTR 3530 Sound Technology (3)

*Prereq.: THTR 1001 or permission of instructor.* Introduction to the fundamentals and operational principles involved in theatrical sound.

#### THTR 3531 Stage Lighting Technology (3)

*Prereq.: THTR 1001 or permission of instructor.* Introduction to the technical and mechanical elements of stage lighting technology in both analog and digital formats.

### THTR 3735 Film and New Media Production II (3)

*Prereq.: THTR 2735. 2 hrs. lecture, 2 hrs. lab.* Advanced techniques of production including: film producing, directing, cinematography, editing, and sound -- including sound capture and design.

### THTR 3800 Theatre or Film Internship (3)

Prereq.: consent of instructor. Pass-fail grading May be repeated for a max. of 6 sem. hrs. credit. Study with an approved theatre or film company; emphasis may be in one or all of the following areas: performance, directing, design, technology, dramaturgy, stage management, administration, box office or casting.

#### THTR 3802 Dance Composition (3)

Fundamental elements and principles of choreography.

#### THTR 3803 Improvisation (3)

*Prereq.: permission of instructor.* Methods and practice of improvisation in dance and theatre.

#### THTR 3900 Selected Topics in Theatre (3)

Prereq.: consent of instructor. May be taken for a max. of 12 hrs. of credit when topics vary. Consult Schedule of Classes for current offering.

### THTR 4008 Writing Drama (3)

See ENGL 4008.

### THTR 4010 Master Seminar (1)

*Credit or registration in THTR 2010, majors only.* Capstone of the Theatre academic experience. Active learning through self-reflective examination of academic career and projection of future path; examining the integration of the academic, personal, and artistic development; development of communication skills in the preparation of multi-modal artifacts of the student's findings.

## THTR 4021 Gender and Sexuality in Performance (3)

Survey of theories, artists, movements and texts involved with staging issues of sexuality and gender.

## THTR 4023 Advanced Costume Construction Techniques for the Stage (3)

*Prereq.: THTR 3123. 6 hrs. lab.* A continuation of THTR 3123. Skills and techniques unique to the construction of costumes for the stage; methods of planning and construction of costumes for the theatre with emphasis on the differences between theatrical costume construction and clothing construction for the consumer market; historical construction, patterning, cutting, fitting, design analysis and adaptations for stage performance.

### THTR 4025 Acting IV: Advanced Acting (3)

Prereq.: THTR 3025; THTR 3027; THTR 3029. Open only to Theatre performance majors. 2 hrs. lecture; 3 hrs. lab. Technique of developing an actor's score for a role.

### THTR 4026 Acting for the Camera II (3)

Prereq.: THTR 3026. Open only to Theatre Majors with a concentration in Performance or Film and Television. 1 hr. lecture; 5 hrs. lab. Builds on acting principles and techniques introduced in THTR 3026. Extensive on camera scene and audition work as well as industry awareness, career tools and strategies for the actor.

#### THTR 4029 Special Topics in Stage Movement (3)

Prereq.: permission of instructor. May be taken for a max. of 6 sem. hrs. of credit when topics vary. 2 hrs. lecture; 2 hrs. lab. Special topics related to physical practices in theatre for training, research and creation.

#### THTR 4031 Aerial Practice II (1)

*Prereq.: permission of instructor. May be repeated twice for credit.* Methods and practice of research and choreography used on aerial apparatus for public performance.

#### THTR 4032 Composition for Physical Theatre (3)

*Prereq.: permission of instructor.* Methods and practice of composition in the creation of physical theatre.

#### THTR 4033 Devising for Physical Theatre (3)

*Prereq.: permission of instructor.* Methods and practice of devising for the creation of a new work of physical theatre.

#### THTR 4123 Costume Design (3)

*Prereq.: THTR 3126 or permission of instructor.* Principles of design related to stage costumes; design research, creative interpretation; adapting costumes to theatrical styles of production; inspiration from designs of the past.

### THTR 4124 Scenic Design (3)

*Prereq.: THTR 2022 and THTR 2830 or permission of instructor.* Basic principles of scenic design for the theatre; form, style, color and lighting; sketches, renderings and models.

#### THTR 4125 Directing II (3)

*Prereq.: THTR 2021 or equivalent.* Principles of play selection, concept formulation, casting, rehearsal and directing plays and scenes in workshop performance.

#### THTR 4126 Advanced Costume Design (3)

*Prereq.: THTR 3126 and THTR 4123.* Continuation of THTR 4123 concentrating on the development of a body of costume design research, conceptual choices and advanced costume design techniques.

#### THTR 4128 Mask Making (3)

2 hrs. lecture; 2 hrs. lab. Skills used in basic mask construction for theatre; includes life casting and four common mask-making techniques with their distinct properties.

#### THTR 4130 Approaches to the Stage (3)

Survey of modern theoretical approaches to the stage and critical issues of performance.

# THTR 4131 Seminar: Contemporary Theatre and Drama (3)

May be taken for a max. of 6 hrs. of credit when topics vary. Selected topics in the contemporary theatre.

### THTR 4132 Advanced Stage Makeup (3)

*Prereq.: THTR 2023 or permission of instructor. 6 hrs. lab.* Advanced principles of makeup for stage and film. Including prosthetic makeup techniques and airbrush makeup; study and execution of period makeup and hairstyles, including basic wig and facial hair construction and wig styling.

### THTR 4134 Advanced Scenery Construction (3)

*Prereq.: THTR 3134 or equivalent. 2 hrs. lecture; 2 hrs. lab.* An advanced examination into the construction of both theatrical and nontheatrical scenery.

### THTR 4136 Theatre Practicum II (1)

*May be taken for a max. of 3 sem. hrs. of credit.* Participation in an approved capacity for the performance or production of a play produced by the Department of Theatre.

### THTR 4138 Film Practicum (2)

May be taken for a max. of 4 sem. hrs. of credit. Open only to Theatre Majors with a concentration in Film and Television or by permission of instructor 2 hrs. lab. Technical participation in Department of Theatre Film/TV performance classes or productions.

## THTR 4220 Drama of Africa and African Diaspora (3)

*Also offered as ENGL 4220.* Study of the form and characteristic features as expressed in the works of dramatists in Africa and African Diaspora.

## THTR 4300 Special Topics in Arts Administration (3)

Prereq.: consent of instructor. May be taken for a max. of 9 sem. hrs. of credit when topics vary.

### THTR 4320 Advanced Arts Management (3)

Continued study of the principles of arts management including the economics of arts industries, financial management, constituent development and arts advocacy.

### THTR 4350 Fundraising for the Arts (3)

Principles of fundraising for the not-for-profit organization including grant writing, individual and corporate giving, planned giving, capital campaigns and special events.

### THTR 4435 Scene Painting II (3)

*Prereq.: THTR 3435 or equivalent. 1 hr. lecture; 4 hrs. lab.* (IA) Contemporary scene painting for the stage; emphasis on advanced projects.

## THTR 4436 History of Theatrical Period Styles and Ornament (3)

Historical survey of period styles and adornment with emphasis on the development of clothing, makeup and hair as well as architecture and furnishings from the Greek period to the present.

### THTR 4530 Sound Design (3)

*Prereq.: THTR 2022 or permission of instructor. 2 hrs. lecture; 2 hrs. lab.* Principles and basic techniques of sound design and its influence on staged productions.

### THTR 4531 Lighting Design I (3)

*Prereq.: THTR 2830 and THTR 3531 or permission of instructor.* Lighting design for the theatre; emphasis on script analysis, production concepts and visual ideas.

### THTR 4540 Advanced Sound Design (3)

*Prereq.: THTR 4530.* Explore the artistic and technical aspects of advanced sound design for a theatrical production with a focus on how to identify design choices via working on various styles and genres of theatre design and technical sound elements.

### THTR 4541 Advanced Sound Technology (3)

*Prereq.: THTR 3530.* Advanced study on creating sound systems with various production types and continued development of skills for troubleshooting an audio system for technical production.

### THTR 4801 Dance History (3)

*Prereq.: THTR 1800 or consent of instructor.* Development of dance from primitive cultures to the present.

### THTR 4804 Dance Theatre (2)

May be repeated for credit every semester. Admission by audition 6 hrs. lab. Experienced modern dancers participate in modern dance theatre as lead dancers and as choreographers.

### THTR 4820 Advanced Stage Management (3)

*Prereq.: THTR 2020 or equivalent*. Advanced training in stage management techniques, including professional experience component with departmental approval.

## THTR 4831 Selected Topics in CAD Drafting for the Theatre (3)

Prereq.: THTR 2830 or equivalent or permission of instructor. Course may be repeated for up to 6 hrs. of credit with a change in platform. Introduction to the fundamentals of CAD drafting and its use in the theatre industry.

## THTR 4832 Selected Topics in Advanced CAD for the Theatre (3)

Prereq.: THTR 4831 or equivalent or permission of instructor. Course may be repeated for up to 6 sem. hrs. of credit with a change in platform (AutoCAD, VectorWorks, etc.).) Continuation of THTR 4831, concentrating on the organic (non-rectilinear) drafting as well as virtual modeling and visualization and its use in the theatre industry.

## THTR 4900 Senior Capstone Seminar in Theatre (3)

*Majors only*. Survey of issues and career options in theatre, focus on professional preparation; required of graduating senior Theatre majors.

# THTR 4901 Special Projects in Theatrical Design (1-3)

*Prereq.: consent of instructor. May be repeated twice for a max. of 6 sem. hrs. of credit. 2-6 hrs. lab.* Mentored special projects to include advanced area of study or the execution of practical production projects in theatrical design.

## THTR 4902 Special Projects in Theatrical Technology (1-3)

*Prereq.: consent of instructor May be repeated twice for a max. of 6 sem. hrs. of credit. 2-6 hrs. lab.* Mentored special projects to include advanced area of study or the execution of practical production projects in theatrical technology.

### THTR 7000 MFA Daily Practice (1)

Prereq.: Admission to the MFA Program in Theatre or consent of instructor. 2-3 hrs. lab. Daily warm-up for actors using such techniques as T'ai Chi, Yoga, Pilates and other techniques at the discretion of the instructor.

## THTR 7001 Independent Projects in Performance Training (1-6)

*Prereq.: Permission of department. May be repeated for a max. of 12 sem. hrs. of credit when topics vary.* Individual projects in performance training with close faculty supervision; emphasis may be in one or all of the following areas: acting, movement, voice, directing or dance.

### THTR 7002 Dance for Actors (1)

*Prereq.: Must be admitted into the MFA Acting program. May be repeated for a max. of 6 sem. hrs. of credit.* Graduate training in dance technique for the actor. Topics will vary by semester at the discretion of the instructor.

### THTR 7008 Drama Writing (3-6)

See ENGL 7008.

### THTR 7130 Script Analysis and Dramaturgy (3)

Methods of studying playscripts in preparation for their production on stage, through Aristotelian, modern and postmodern approaches.

### THTR 7220 MFA Acting Studio I (3)

*Prereq.: admission to MFA acting program. 2 hrs. lecture; 2 hrs. lab.* Intensive work in actor's basic process and tools; text analysis; introduction to contemporary realism; introduction to Shakespeare.

### THTR 7221 MFA Acting Studio II (3)

*Prereq.: THTR 7220 or equivalent. 2 hrs. lecture; 2 hrs. lab.* Applied basic process and text analysis; realism to lyric realism; Ibsen, Chekhov, Williams; scene work with selected texts.

### THTR 7222 MFA Acting Studio III (3)

*Prereq.: THTR 7221 or equivalent. 2 hrs. lecture; 2 hrs. lab.* The Tragic Impulse. Applied basic process and text analysis explored in Greek, Shakespearean and Jacobean tragedy; scene work with selected texts.

### THTR 7223 MFA Acting Studio IV (3)

*Prereq.: THTR 7222 or equivalent. 2 hrs. lecture; 2 hrs. lab.* The Comic Impulse. Basic process and text analysis explored in Commedia, Shakespeare, Moliere, Restoration, Sheridan and Shaw; scene work with selected texts.

### THTR 7224 MFA Acting Studio V (3)

*Prereq.: THTR 7223 or equivalent. 2 hrs. lecture; 2 hrs. lab.* New plays and devised drama. The Solo Performance.

### THTR 7225 MFA Acting Studio VI (1)

*Prereq.: THTR 7224 or equivalent 2 hrs. lab.* Audition/interview techniques and professional issues.

### THTR 7226 MFA Camera Studio I (3)

*Prereq.: admission to MFA Acting Program. 2 hrs. lecture; 2 hrs. lab.* An active, in-front-of-the-camera, studio class designed to introduce the committed actor to he skills and techniques needed to be truthful, interesting and affecting when acting in television and film. An elemental comprehension of film and television terminology, technology and process.

### THTR 7227 MFA Voice Studio I (3)

*Prereq.: admission to the MFA program. 2 hrs. lecture; 2 hrs. lab.* Getting to know your vocal instrument; release & relaxation; basic articulatory work; vocal hygiene; resonation work using techniques from Chuck Jones, Kristin Linklater & Patsy Rodenburg; introduction to Fitzmaurice destructuring explorations; textual discoveries via contemporary monologue work.

### THTR 7228 MFA Voice Studio II (3)

*Prereq.: THTR 7227. 2 hrs. lecture; 2 hrs. lab.* Introduction to the International Phonetic Alphabet; introduction to Baseline American Dialect via Dudley Knight/Gillian Lane-Plescia; Fitzmaurice restructuring explorations; acting scene work crossover.

### THTR 7229 MFA Voice Studio III (3)

Prereq.: THTR 7228 or equivalent 2 hrs. lecture; 2 hrs. lab. Baseline American & IPA review; Advanced Fitzmaurice Explorations; epic monologue (Greek or Shakespearean); acting scene work crossover.

### THTR 7230 MFA Voice Studio IV (3)

*Prereq.: THTR 7229 or equivalent. 2 hrs. lecture; 2 hrs. lab.* Intro to Dialects; extreme voice usage; Roy Hart explorations; acting scene work crossover.

### THTR 7231 MFA Voice Studio V (3)

*Prereq.: THTR 7230 or equivalent. 2 hrs. lecture; 2 hrs. lab.* Advanced dialect work; character voice explorations; voice over techniques; radio plays; scene work crossover.

### THTR 7233 MFA Movement Studio I (3)

*Prereq.: admission to MFA program or consent of instructor.* The Diagnostic Body. An intensive examination of the habits of physical use of the body through principles of T<sup>\*\*</sup>ai Chi, Alexander Technique, Yoga and Sports Fitness.

#### THTR 7234 MFA Movement Studio II (3)

*Prereq.: THTR 7233 or consent of instructor.* The Expressive Body. Neutral and character masks used to enhance the actor's awareness of body language and nonverbal communication while expanding approaches to character through external physical choices.

#### THTR 7235 MFA Movement Studio III (3)

*Prereq.: THTR 7234 or equivalent.* The Combative Body. Basic stage combat in unarmed and rapier. Foundation in conditioning through stretching and tumbling with rolls, dives and falls. Scene presentations used to apply techniques to performance.

### THTR 7236 MFA Movement Studio IV (3)

*Prereq.: THTR 7235 or consent of instructor.* The Inventive Body. Physical approaches to the creative impulse in interpretive and generative work.

### THTR 7237 MFA Movement Studio V (3)

*Prereq.: THTR 7236 or consent of instructor.* The Athletic Body. This class focuses on the actor's need to stay physically fit and active as they approach the return to the freelance professional world.

#### THTR 7238 MFA Movement Studio VI (3)

*Prereq.: THTR 7237 or equivalent.* Exposure to major trends in movement as performance material.

#### THTR 7239 MFA Camera Studio II (3)

*Prereq.: THTR 7226. 2 hrs. lecture; 2 hrs. lab.* Further development of skills and principles introduced in Camera Studio I; exercises and scene work focused on special acting challenges, characterizations and more demanding texts; creation and production of final DV/film project.

#### THTR 7420 Director/Designer Communication (3)

*Prereq.: admission to MFA program or consent of instructor.* Methods of communication between directors and designers explored through a series of pre-production projects.

#### THTR 7421 Advanced Scene Design I (3)

*Prereq.: admission to MFA design technology program or consent of instructor.* Preparation and presentation of scene design projects; emphasis on script analysis, developing the ground plan and elevations.

### THTR 7422 Advanced Scene Design IIA (4)

*Prereq.: THTR 7421.* (IIA) Preparation and presentation of scene design projects; emphasis on period and style.

### THTR 7431 Rendering for the Theatre IA (3)

*Prereq.: admission to MFA design technology program or consent of instructor. 1 hr. lecture; 4 hrs. lab.* Drawing and rendering techniques for scenic, costume, and lighting designers; emphasis on basic design elements and use of various media.

### THTR 7436 Period Styles and Costume (3)

Historical survey of theatre with emphasis on the development of visual design from the Greeks to the present with particular focus on the work of the actor in relationship to costume, movement and space.

## THTR 7441 Computer Techniques for the Theatre (3)

*Prereq.: admission to MFA in Theatre program or consent of instructor.* Examines the various ways the computer is used in theatre, specifically in the area of stage properties. Printing, plotting, and various computer programs are included in the curriculum.

#### THTR 7521 Advanced Costume Design I (4)

*Prereq.: admission to MFA design technology program or consent of instructor. 3 hrs. lecture; 2 hrs. lab.* (I) Preparation of advanced costume design projects; emphasis on script analysis, characterization, and problem solving.

### THTR 7522 Advanced Costume Design II (4)

*Prereq.: admission to MFA design technology program or consent of instructor. 3 hrs. lecture; 2 hrs. lab.* (II) Emphasis on designing entire production projects to achieve unity, coherence and style.

#### THTR 7523 Advanced Costume Design III (4)

Prereq.: admission to the MFA design technology programor consent of instructor. 3 hrs. lecture; 2 hrs. lab. Emphasis on ballet, opera, and musical theatre.

### THTR 7524 Advanced Costume Technology I (3)

*Prereq.: admission to MFA design/technology program or consent of instructor. 6 hrs. lab.* Advanced problems in the planning and construction of historical costumes for the theatre, with emphasis on pattern drafting and draping.

#### THTR 7525 Advanced Costume Technology II (3)

*Prereq.: admission to MFA design technology program or consent of instructor.* Advanced planning and construction of costumes for the theatre; emphasis on historical construction, cutting and tailoring.

#### THTR 7526 Advanced Costume Technology III (3)

*Prereq.: admission to MFA design technology program or consent of instructor.* (III) Emphasis on selection, modification and preparation of fabrics for stage costumes.

#### THTR 7527 Advanced Costume Technology IV (3)

*Prereq.: admission to MFA design technology program or consent of instructor.* (IV) Emphasis on costume accessories including millinery, footwear, armor and jewelry.

## THTR 7601 Scene Shop Technologies and Theatre Safety I: Woodworking (3)

Introduction to traditional and modern materials (primarily wood and plastic products); construction tools; techniques for executing theatrical constructs; shop organization and management; theatre safety; and occupational health.

## THTR 7602 Scene Shop Technologies and Theatre Safety II: Metalworking (3)

Introduction to traditional and modern materials (primarily metal products); construction tools; techniques for executing theatrical constructs; shop organization and management; theatre safety; and occupational health are covered.

### THTR 7610 Structural Design for the Stage I (3)

Develops student understanding and skills for analyzing loading conditions on scenic elements and engineering a structural design for executing these elements.

### THTR 7611 Structural Design for the Stage II (3)

*Prereq.: THTR 7610.* Continuation of the concepts presented in THTR 7610.

### THTR 7615 Theatrical Production Planning (3)

The management of the theatrical production process. Investigation of the labor and material cost budgeting for each of the production areas.

### THTR 7618 Entertainment Rigging (3)

Introduction to traditional rigging techniques for the stage, arena and outdoor venues.

### THTR 7620 Stage Machinery Physics (3)

Examination of Newtonian dynamics to aid in determining the behavior of moving scenery. Understanding how the components of a stage machine system are specified to withstand the forces encountered.

### THTR 7622 Scenery Automation (3)

*Prereq.: THTR 7620. 2 hrs. lecture; 2 hrs. lab.* Examination of scenery control systems, including PLC programming, positioning control, software and all in-one control systems.

### THTR 7623 Theatre Technology Seminar IA (3)

*Prereq.: admission to MFA design technology program.* Advanced techniques used on stage and in the scene shop.

### THTR 7626 Theatre Technology Seminar IIB (3)

*Prereq.: admission to the MFA design technology program.* Emphasis on roles and responsibilities of the technical director and on preparation to enter the professional world.

### THTR 7630 Directed Professional Internship (1-12)

*Prereq.: third-year status in theatre MFA program. Passfail grading. 2-24 hrs. lab.* A theatre-related internship with a professional organization or business (lighting manufacturer, professional theatre, computer company).

### THTR 7801 Properties I (3)

*Prereq.: admission to MFA in Theatre program or consent of instructor. 1 hr. lecture; 4 hrs. lab.* A detailed examination of basic materials, techniques and procedures used by the designer and technician in the construction of stage properties.

### THTR 7802 Properties II (3)

Prereq.: THTR 7801, admission to MFA in Theatre program or consent of instructor. 1 hr. lecture; 4 hrs. lab. A continuation of the concepts presented in THTR 7801.

### THTR 7821 Furniture and Woodworking I (3)

Prereq.: admission to MFA in Theatre program or consent of instructor. 1 hr. lecture; 4 hrs. lab. Advanced studies in woodworking technologies including materials, construction techniques and styles. Care and repair of furniture is included in the curriculum.

### THTR 7822 Furniture and Woodworking II (3)

Prereq.: THTR 7821, admission to MFA in Theatre program or consent of instructor. 1 hr. lecture; 4 hrs. lab. Continuation of the concepts presented in THTR 7821.

### THTR 7831 Advanced Properties I (3)

Prereq.: THTR 7801 and THTR 7802. Engagement in projects that occur in productions under construction.

### THTR 7832 Advanced Properties II (3)

*Prereq.: THTR 7831.* Continuation of concepts covered in THTR 7831.

## THTR 7900 Introduction to Graduate Study in Theatre (3)

*Prereq.: admission to the MA/PhD program in theatre.* Research and bibliographic skills for students of theatre history, dramatic literature, theory and criticism.

## THTR 7901 Issues in Ancient Theatre and Performance (3)

Survey of issues related to history, dramatic literature and theatre criticism of the Ancient World, including Greece, Rome and Asia.

## THTR 7902 Issues in Medieval and Renaissance Theatre and Performance (3)

Survey of issues related to history, dramatic literature and theatre criticism found in Medieval and Renaissance Europe, Asia and Americas.

## THTR 7903 Issues in 17th and 18th Century Theatre and Performance (3)

Survey of issues related to history, dramatic literature and theatre criticism founded in 17th and 18th century Europe, America and Asia.

## THTR 7904 Issues in 19th Century Theatre and Performance (3)

Survey of issues related to history, dramatic literature and theatre criticism found in 19th century Europe, America and Asia.

## THTR 7912 20th Century First-Wave Avant-Garde Drama and Performance (3)

Survey of dramatic and performance practices in the first half of the twentieth century with emphasis on European and American first-wave avant-garde.

## THTR 7913 Seminar in American Drama: 18th Century to the Present (3)

May be taken for a max. of 6 hrs. of credit when topics vary.

## THTR 7914 Drama and Performance: World War II to the Millennium (3)

Survey of world performance and drama traditions from the end of World War II to the end of the twentieth century.

# THTR 7920 Seminar in Drama of the African Diaspora (3)

May be taken for a max. of 6 hrs. credit when topics vary. Contextualizing forms and expressions of drama in the black cultures of the African diaspora in the New World.

## THTR 7922 Seminar: Performance Theories and Criticism (3)

May be taken for a max. of 6 hrs. of credit when topics vary.

# THTR 7923 Seminar in Gender, Sexuality and Performance (3)

Survey of practical and theoretical approaches, attitudes, and debates regarding issues of gender and sexuality as they relate to performance.

## THTR 7924 Seminar: Evolution of Dramatic Theory (3)

May be taken for a max. of 6 sem. hrs. of credit when topics vary. Major concepts of dramatic theory and practice in classical, medieval and Renaissance periods.

# THTR 7925 Seminar: Evolution of Dramatic Theory (3)

May be taken for a max. of 6 sem. hrs. of credit when topics vary. Major concepts of dramatic theory and practice in the European and American modern period.

## THTR 7926 Seminar in African Drama and Theatre (3)

May be taken for a max. of 6 credit hours when topics vary. Comparative study of the form and expressions of drama among the various cultures of Africa.

### THTR 7929 Independent Research: Theatre (1-3)

Prereq.: consent of instructor. May be taken for a max. of 6 sem. hrs. credit. For advanced graduate students who wish to pursue research on special problems exclusive of thesis or dissertation.

### THTR 7930 Theatre Production (1-12)

*Prereq.: admission to MFA theatre program. 2-24 hrs. lab.* Major acting, directing, design or technical responsibility for one or more LSU productions. **THTR 8000** Thesis Research (1-12 per sem.) *"S"/"U" grading.* 

THTR 9000 Dissertation Research (1-12 per sem.) "S"/"U"grading.

## **University College**

## UC 0050 Introduction to Mentoring, Education and Research (2)

Pass-no credit grading. May be taken for a maximum of 4 semester hours of credit. For first-year students in HHMI Professors Program or LA-STEM Research Scholars Program only. Not for degree credit. Students will be mentored as they prepare to become mentors and researchers. Introduction to college success tools, including learning strategies, time management and organization.

## UC 0060 Pursuing Mentoring, Education and Research (2)

Prereq.: UC 0050 or permission of instructor. Pass-no credit grading. May be taken for a maximum of 4 semester hours of credit. For second-year students in the HHMI Professors Program or LA-STEM Research Scholars Program only. Not for degree credit. Students continue to implement the college success tools gained in UC 0050 and will gain skills needed to obtain research. Students will assess various applications of terminal degrees in their chosen discipline and will engage in peer mentoring.

## UC 0070 Success in Mentoring, Education and Research (2)

Prereq.: UC 0060 or permission of instructor. Pass-no credit grading. May be taken for a maximum of 4 semester hours of credit. For third-year students in HHMI Professors Program or LA-STEM Research Scholars Program only. Not for degree credit. Students will gain skills needed for graduate school marketability and preparation and will expand their mentoring projects and community involvement, engaging in peer mentoring.

## UC 0080 Advancing in Mentoring, Education and Research (1)

Prereq.: UC 0070 or permission of instructor. Pass-no credit grading May be taken for a maximum of 4 semester hours of credit. For fourth or fifth year students in HHMI Professors Program or LA-STEM Research Scholars Program. Not for degree credit. Students will serve as leaders within the program and in the community. They will enhance presentation skills, finalize graduate school preparation and engage in peer mentoring.

## University

#### **UNIV 0000 University courses**

Unique courses of timely and general interest are offered periodically as "University" courses. These courses are interdisciplinary, broad in scope and centered on topics of current concern. Permission to offer a UNIV course must be obtained from the Office of Academic Affairs and the course must be approved by the Faculty Senate Courses and Curricula Committee. University courses may not be offered more than twice (with the exception of The Boyd Professor Lecture Series). Each course carries undergraduate credit of one to three semester hours. Acceptance of such credit toward fulfillment of degree requirements is decided by the faculty of each college or school within the university. The topic, credit and class time of each university course are announced by the Office of Academic Affairs prior to the beginning of the semester in which the course is to be taught.

University courses have been offered on such topics as The Constitution: Then and Now (1987), The Age of the French Revolution (1989), Diversity in America (1990), The Holocaust (1992), Political Communication (1993), Race Relations (1995) and The Boyd Professor Lecture Series (2000).

## **University Studies**

## UNST 1001 Research Methods in the Humanities & Social Sciences (1)

*Prereq.: For students in the College of Humanities and Social Sciences.* Provides an introduction to research proposal writing, research methodologies, and foundational research theories and protocols.

### UNST 3001 Internship (3-6)

Prereq.: Permission of instructor. May be taken for a max. of 6 sem. hrs. of credit. For students in the College of Humanities & Social Sciences. Application of skills and knowledge learned toward real world work experience.

#### UNST 3900 Interdisciplinarity (3)

*Prereq.: Standing in the College of Humanities & Social Sciences as an interdisciplinary studies major.* Study of interdisciplinary approaches in the sciences, social sciences, arts and humanities; analysis of combinations of disciplinary approaches.

## **Veterinary Clinical Sciences**

## VCS 7001 Seminar: Veterinary Clinical Sciences (1)

Prereq.: DVM or equivalent degree or consent of instructor. May be taken for a max. of 8 hrs. of credit when topics vary. New developments in veterinary internal medicine, surgery, dermatology, ophthalmology, cardiology, neurology, theriogenology and laboratory/exotic animal medicine.

#### VCS 7002 Research Techniques in Veterinary Clinical Sciences (1-4)

Prereq.: appropriate 4000- or 5000- level course in selected topic or equivalent and consent of instructor. May be taken for a max. of 6 sem. hrs. when topics vary. Specialized research techniques related to a specific discipline of veterinary clinical sciences.

## VCS 7003 Special Topics in Veterinary Clinical Sciences (1-4)

Prereq.: appropriate 4000- and 5000- level course in selected topic or equivalent and consent of instructor. May be taken for a max. of 8 sem. hrs. of credit when topics vary. Aspects of the biochemical, physiological, pathophysiological, epidemiological and economic basis of clinical veterinary medicine.

### VCS 7201 Veterinary Gastroenterology (2)

*Prereq.: DVM or equivalent degree or consent of instructor.* Gastrointestinal diseases and related conditions; emphasis on diagnostics, pathophysiology and management options.

### VCS 7202 Veterinary Surgical Techniques (1)

Prereq.: DVM or equivalent degree or consent of instructor. May be taken for a max. of 6 hrs. of credit when topics vary. 3 hrs. lab. Advanced surgical and experimental techniques related to an organ system.

### VCS 7204 Advanced Veterinary Orthopedics (2)

*Prereq.: DVM or equivalent degree or consent of instructor.* Bone, muscle, tendon, and ligament diseases with emphasis on pathophysiology, diagnostics and management options.

## VCS 7205 Advanced Veterinary Clinical Neurology (2)

*Prereq.: DVM or equivalent degree or consent of instructor.* Diseases of the central and peripheral nervous system with emphasis on pathophysiology, diagnostics, neurosurgery and other management options.

## VCS 7206 Advanced Veterinary Urogenital Disease (2)

*Prereq.: DVM or equivalent degree or consent of instructor.* Urinary and reproductive tract diseases and related conditions with emphasis on pathophysiology, diagnostic and management options.

# VCS 7208 Advanced Veterinary Cardiovascular Disease (2)

*Prereq.: DVM or equivalent degree or consent of instructor.* Cardiovascular diseases and related conditions with emphasis on pathophysiology, diagnostic and management options.

# VCS 7209 Advanced Veterinary Respiratory Disease (2)

*Prereq.: DVM or equivalent degree or consent of instructor.* Respiratory diseases and related conditions with emphasis on pathophysiology, diagnostic and management options.

### VCS 7210 Veterinary Scientific Journal Review (1)

*Prereq.: DVM or equivalent degree or consent of instructor. May be taken for a max. of 6 sem. hrs. of credit.* In depth critique of current veterinary journals with emphasis on appraising experimental design and analysis; and interpretation and application of results.

## VCS 7211 Advanced Veterinary Cardiorespiratory Disease (3)

*Prereq.: DVM or equivalent degree or consent of instructor.* Cardiovascular and respiratory diseases and related conditions with emphasis on pathophysiology, diagnostic and management options.

## VCS 7212 Biomechanics of Fractures and Fracture Fixation (3)

*Prereq.: permission of instructor.* Principles of biomechanics as applied to fractures and fracture fixation, including design and biomechanical testing devices for fixation of bone fractures arising in veterinary orthopedic surgery.

#### VCS 7213 Advanced Veterinary Diagnostic Imaging Interpretation: Small Animal (3)

*Prereq.: DVM or equivalent degree or consent of instructor.* Advanced training in radiographic, ultrasonographic, computed tomographic and magnetic resonance imaging examination interpretation in common small animal diseases.

#### VCS 7214 Advanced Veterinary Diagnostic Imaging Interpretation: Large Animal (3)

*Prereq.: DVM or equivalent degree or consent of instructor.* Advanced diagnostic imaging interpretation of radiographic, computed tomography, ultrasonographic, scintigraphic and magnetic resonance imaging examinations in large animals.

#### VCS 7215 Advanced Veterinary Diagnostic Imaging: Interventional Techniques Laboratory (2)

*Prereq.: DVM or equivalent degree or consent of instructor.* Interventional tissue sampling and therapeutic guided procedures performed with fluoroscopy, computed tomography (CT), and ultrasonography (US) in animals.

## **Veterinary Science**

## VETS 2000 Anatomy and Physiology of Farm Animals (3)

Anatomy and physiology of farm animals; important species differences.

## **Veterinary Medicine**

### VMED 5001 Problem Based Learning I (2)

Small group problem-based learning using clinical veterinary cases, with emphasis on the problem-oriented approach to veterinary problem solving.

### VMED 5002 Problem Based Learning II (2)

*Continuation of VMED 5001.* Small group problem-based learning using clinical veterinary cases, with emphasis on the problem-oriented approach to veterinary problem solving.

## VMED 5010 Special Topics in Veterinary Medicine (0.5-2.5)

Pass/fail grading.

#### VMED 5011 Advanced Veterinary Anesthesiology and Surgery (1.5)

Advanced veterinary surgery and anesthesiology.

## VMED 5100 Introduction to Veterinary Medicine (0.5)

*Pass/fail grading.* Survey of career opportunities in the veterinary profession.

## VMED 5102 Introduction to Veterinary Medicine II (0.5)

*Pass/fail grading.* Continuation of VMED 5100. Survey of career opportunities and other issues in the veterinary profession.

### VMED 5103 Principles of Problem Solving (1)

Introduction to problem solving methodology, clinical problem solving, problem-based learning, problem-oriented approach, and information management.

### VMED 5104 Principles of Diagnostic Imaging (1)

Basic principles of radiation physics, radiography, radiation safety, radiology, ultrasonography, computed tomography, and magnetic resonance imaging in veterinary medicine; emphasis on the normal radiographic anatomy of the canine, feline, equine, and bovine using selected case examples.

# VMED 5105 Principles of Diagnostic Imaging II (0.5)

Continuation of VMED 5104.

### VMED 5109 Veterinary Physiology I (3.5)

Physiology of the endocrine, reproductive, and muscular systems in veterinary species.

### VMED 5111 Veterinary Physiology II (3)

Basic cardiovascular and gastrointestinal system dynamics in veterinary species.

### VMED 5112 Veterinary Physiology III (3)

Basic respiratory and renal system dynamics in veterinary species.

### VMED 5123 Basic and Applied Anatomy I (3.5)

Principles of macroscopic anatomy, basic structure, and applied anatomy of the bones, muscles, and joints of the thoracic limb, pelvic limb, and trunk; dissection of the dog, with relevant comparisons to the horse and domestic ruminants.

### VMED 5124 Basic and Applied Anatomy II (3)

Introduction to the nervous system; anatomy of the blood vessels and nerves of the thoracic and pelvic limb, the equine digit; comparative anatomy of the head, including the skull and mandible, nasal cavity and paranasal sinuses, ear, oral cavity, teeth, larynx, cranial nerves, surface of the brain and its coverings, and blood suppy.

### VMED 5125 Basic and Applied Anatomy III (4)

Anatomy of the neck and trunk, thoracic and pleural cavities, thoracic viscera; introduction to the autonomic nervous system; the abdominal wall, abdominal viscera, pelvic cavity, and viscera of the urinary and reproductive systems of domestic animals.

#### VMED 5126 Cell Biology and Histology (3)

Basic cell and tissue biology; glandular and nonglandular epithelia, connective tissue, muscle, hematopoietic tissue, and the cardiovascular, pulmonary, and immune systems of veterinary species.

## VMED 5127 System Histology and Developmental Anatomy (4)

*Continuation of VMED 5126.* Cell and tissue biology of the digestive, endocrine, reproductive, integumentary, urinary, visual, and auditory systems; early embryonic development of veterinary species.

## VMED 5130 Veterinary Bacteriology and Mycology (4)

Comparative biology of medically significant bacteria and fungi, emphasis on principles of pathogenesis and resistance to host

responses, laboratory diagnosis, microbial sensitivity determination, resistance to chemotherapeutics, and intervention outcomes.

#### VMED 5171 Neuroscience (3)

Anatomy of the nervous system of domestic mammals; development and internal organization of the spinal cord and brain; physiology of the neuron and synapse; spinal functions, reflexes, and motor systems; proprioceptive, somatosensory, auditory, vestibular, visual, olfactory, and gustatory systems; autonomic nervous system; higher CNS functions and disease; basis for neurological examination.

### VMED 5172 Veterinary Immunology (1.5)

Introduction to the concepts and principles of modern veterinary immunology, with emphasis on understanding the underlying mechanisms responsible for both protective and pathologic immune responses; understanding of the basic principles of immunological effector functions and immune regulation.

### VMED 5173 Veterinary Pathology (3)

Concepts, pathogenesis, and gross, microscopic, and ultrastructural changes associated with general pathology: cell injury and death, tissue mineralization, tissue pigmentation, disturbances of tissue growth, disturbances of circulation, and inflammation; recognition of gross, microscopic, and ultrastructural tissue changes and pathogenesis.

#### VMED 5202 Animals in Society I (0.5)

*Pass/fail grading*. Human-animal relationships, humananimal bond, pet facilitated therapy, animal welfare, and animal rights.

### VMED 5203 Animals in Society II (0.5)

Issues in companion animal, equine, farm animal, and captive, exotic animal behavior.

### VMED 5223 Veterinary Pharmacology (4.5)

Fundamental principles of drug actions; drug disposition, pharmacokinetics and mechanisms of action; major classes of drugs used in veterinary practice; emphasis on fundamentals of drug action and clinical application.

#### VMED 5235 Veterinary Parasitology (4)

Morphology, physiology, and taxonomy of arthropods, protozoa, and helminths of veterinary importance; agressive mechanisms of helminths, arthropods, and protozoa as well as defense mechanisms of the host; hostparasite relationships; diagnostic methods; mechanisms and factors influencing effectiveness of antiparasitic compounds and other control methods.

#### VMED 5236 Veterinary Virology (2)

Comparative morphology, biochemistry, and classification of animal viruses; viral multiplication and pathogenesis; virus-host cell interactions and host responses to viral infections; rationale behind viral diagnostics and viral vaccines.

#### VMED 5241 Systemic Pathology I (4.5)

Diseases, disease processes, and disease mechanisms in selected organ systems; emphasis on species of interest in veterinary medicine.

### VMED 5242 Systemic Pathology II (1.5)

Diseases, disease processes, and disease mechanisms in selected organ systems; emphasis on species of interest in veterinary medicine.

### VMED 5253 Epidemiology and Public Health (3)

Basics of veterinary epidemiology and public health; including regulatory medicine, environmental issues, food saffety, foreign animal disease, food- and water-borne diseases of humans, agro- and bioterrorism, and zoonotic diseases.

### VMED 5260 Principles of Veterinary Surgery (1.5)

Principles and fundamental techniques of veterinary surgery.

## VMED 5261 Diseases of the Cardiovascular System (2)

Principles of the diagnosis and treatment of acquired and congenital cardiovascular diseases of domestic animals.

#### VMED 5262 Small Animal Orthopedics (1.5)

Common orthopedic problems encountered in small animal practice; developmental and traumatic abnormalities affecting the musculoskeletal system of the dog and cat.

#### VMED 5263 Urinary System Diseases (2)

Clinical applications of renal physiology; characterization, diagnosis, and treatment of diseases of the urinary system of domestic animals.

### VMED 5264 Diseases of Dogs and Cats (3.5)

Basic principles, diagnosis, and treatment of common diseases/conditions involving small animals.

## VMED 5265 Avian, Zoo, and Exotic Animal Diseases (3)

Principles of diagnosis, treatment, medicine, surgery, and control of diseases of companion birds and rodents, raptors, ferrets, rabbits, zoo, exotic, and marine animals.

#### VMED 5266 Diseases of Farm Animals (4)

Principles of diagnosis, treatment, prevention, and control of diseases/conditions of cattle, goats, sheep, and swine.

#### VMED 5267 Veterinary Anesthesia (1.5)

An introduction to the principles and practices of veterinary anesthesiology.

# VMED 5270 Clinical Pathology and Diseases of the Hemolymphatic System (4)

Introduction and application of principles and techniques of hematology; clinical chemistry; exfoliative cytology; and body fluid analysis; diagnosis, management, and treatment of diseases of the hemolymphatic system in equine, farm animal, and companion animal species.

### VMED 5272 Veterinary Clinical Oncology (2)

Fundamentals of oncology, including the basics of mutagenesis, oncogenesis, tumor immunology, tumor epidemiology, diagnosis, and therapy in animals.

## VMED 5273 Endocrine and Metabolic Diseases (2.5)

Introduction to the normal structure and function of the endocrinologic and metabolic systems; overview of important endocrine diseases of veterinary species.

### VMED 5310 Clinical Skills Laboratory (0.5)

Basic clinical skills necessary in the practice of companion animal veterinary medicine including restraint, physical examination, advanced diagnostic and therapeutic techniques, techniques used to evaluate the eyes and skin, clinical nutrition, and client communication and medical history taking.

### VMED 5315 Veterinary Radiology and Imaging (2)

Use of radiography, ultrasound, and cross-sectional imaging to diagnose diseases of the thorax, abdomen, and neuromusculoskeletal system in small and large animals.

### VMED 5320 Large Animal Clinical Nutrition (1)

Nutrition of horses, swine, dairy cattle, beef cattle, and small ruminants; feed ingredients, commercial feeds, and feed labels; diet formulation and evaluation; nutrient requirements and feeding practices for the healthy animal; nutrient deficiencies; nutritional prevention and/or management of specific disease conditions.

#### VMED 5325 Small Animal Clinical Nutrition (1)

Nutrition of dogs, cats, pet birds, and exotic species; nutrient requirements and feeding practices for the healthy animal; nutrient deficiencies; nutritional prevention and/or management of specific disease conditions.

### VMED 5351 Veterinary Neurology (1.5)

Clinical and comparative anatomy, physiology, pharmacology, diagnosis, and therapy of diseases of the nervous system in domestic animals.

### VMED 5352 Veterinary Ophthalmology (1.5)

Clinical and comparative anatomy, physiology, pharmacology, diagnosis, and therapy of diseases of the eye in domestic animals.

### VMED 5361 Comparative Theriogenology (4)

Reproductive anatomy, endocrinology, and physiology; breeding, diagnosis, therapy, and control methods; assisted reproductive technologies in theriogenology for domestic animals (animal reproduction).

### VMED 5362 Diseases of Horses (4)

Diagnosis and management of diseases in horses; emphasis on recognition of disorders; diagnostic techniques; medical and surgical management.

### VMED 5363 Critical Care (1)

Basic principles of emergency and critical care medicine, including triage of the trauma patient, fluid therapy in multiple species, CPR, and monitoring of the critically ill patient.

#### VMED 5365 Integumentary System (2.5)

Diagnosis, treatment, and surgery of important skin and ear diseases and skin wound management in domestic animals.

#### VMED 5366 Population Medicine (2.5)

Overview of disease control and prevention as it applies to animal populations; food and fiber production units and the equine industry are stressed.

### VMED 5370 Ethics and Jurisprudence (1)

Introduction to veterinary ethics and the law; their relationship to the veterinary profession.

#### VMED 5371 Business Management (1)

20 contact hours. Principles of analysis and decision making related to operating a professional, client-oriented practice as a business; concepts in communication, practice promotion, finance, and personnel management for optimum efficiency and return on investment.

## VMED 5372 Clinical Immunology and Infectious Diseases (2.5)

Principles of diagnosis, treatment, and control of infectious diseases.

#### VMED 5373 Toxicology (2.5)

Toxicology of various natural and synthetic toxicants in relation to the prevention, diagnosis, and treatment of common intoxications in domestic animals.

#### VMED 5441 Diagnostic Microbiology (1)

Clinical application of laboratory services for the diagnosis of immunological and infectious diseases.

### VMED 5442 Diagnostic Parasitology (1)

Clinical application of laboratory services for the diagnosis of parasitic diseases.

### VMED 5443 Anesthesiology (2)

*May be taken for a max. of 4 hrs. of credit.* Practice of anesthesia, including technical skills, monitoring tools, and pain management in a variety of species.

### VMED 5452 Diagnostic Pathology (4)

May be taken for a max. of 12 hrs. of credit. Necropsy of various vertebrate animal species, with emphasis on domesticated animals; application of diagnostic procedures and techniques in anatomic and clinical pathology; casebased, problem-oriented approach to diagnostic problem solving utilizing current teaching hospital and referral cases and prepared materials that illustrate the aspects of disease mechanisms, pathogenesis, tissue changes, and factors needed for accurate diagnoses.

#### VMED 5454 Radiology and Diagnostic Imaging (4)

Applications of procedures, methods, and techniques in veterinary radiography, radiology, and diagnostic ultrasound.

## VMED 5455 Avian, Zoo, Exotic, and Marine Animal Medicine (1-4)

Avian, zoo, exotic, and marine animal care and managemnt; clinical application of diagnostic, treatment, and control methods for avian, zoo, exotic, and marine animal diseases; client interaction related to didactic information learned in preclinical course; primary and intensive care medicine, client education, practice management review.

## VMED 5456 Canine and Feline Medicine and Preventive Health (4)

Application of diagnostic, therapeutic, and control methods for canine and feline diseases; primary and intensive care medicine; preventive health care; medical techniques; problem-oriented approach, client education, practice management; case studies in small animal clinic.

### VMED 5457 Companion Animal Surgery (4)

Diagnostic, treatment, and surgical techniques and procedures in companion animals; surgical problems, preoperative and postoperative patient care; anesthetic techniques; client education and practice management; case studies in the small animal clinic.

#### VMED 5458 Equine Medicine and Surgery (4)

Diagnostic, treatment, and control methods for equine diseases; surgical procedures, methods, and techniques in horses; study of medical and surgical cases in the large animal clinic.

### VMED 5460 Applied Veterinary Dermatology (2)

May be taken for a max. of 4 hrs. of credit. Diagnostic, treatment, and control methods for skin diseases of domestic animals; history taking; physical and dermatological examination; technical, problem-solving, and communication skills; participation in rounds, with emphasis on improving clinical proficiency; dermatological knowledge base and patient management; emphasis on responsibility and interpersonal relationships.

### VMED 5462 Externship (2-5)

Pass/fail grading. May be repeated for credit. Registration for this optional program must be approved by the director of Veterinary Clinics. Two- to five-week training period for fourth-year students with a private practitioner of veterinary medicine or with a qualified veterinary specialist.

### VMED 5463 Special Training (1-5)

May be repeated for credit. Registration for this course must be approved by the instructor and the department head involved. Training for veterinary medical students or advanced studies students in one or more clinical specialty areas of basic science disciplines.

### VMED 5465 Theriogenology (1-4)

Diagnostic, treatment, and control methods in theriogenology; emphasis on economics of reproductive herd health of domestic livestock and breeding management of horses and companion animals; fertility assessment of the male and female animal; obstetrics; artificial insemination and embryo transfer techniques.

### VMED 5467 Applied Veterinary Ophthalmology (1-4)

Special training in diseases and surgery of the eye; clinical experience in ophthalmic diagnostics, therapeutics, and surgery.

### VMED 5468 Food Animal Health Management (4)

Diagnostic, medical, surgical treatments, and herd health management of medical and surgical cases in the large animal clinic and in field services; health programs and outreach disease problem solving.

#### VMED 7004 Introduction to Research (2)

*Prereq.: consent of instructor.* Concepts and methodology in developing research programs; selection of a research problem; planning, execution and publication of original research.

## VMED 8000 Thesis Research (1-12 per sem.)

"S"/"U"grading.

### VMED 8900 Pre-dissertation Research (1-9)

May be taken for a max. of 9 sem. hrs. of credit.

VMED 9000 Dissertation Research (1-12 per sem.) "S"/"U"grading.

## Women's & Gender Studies

#### WGS 1001 Evolution of Sex and Gender (3)

This is a General Education course. *Interdisciplinary course, team-taught by faculty in the physical and social sciences.* Covers evolution as differential reproduction; reproduction-related earth history highlights; genetics of sex; animal reproduction strategies; anatomy and physiology of human reproductive systems; evolutionary trajectories in primates; sex and gender in human prehistory and in culture.

#### WGS 2200 Gender and Popular Culture (3)

Popular culture forms from a women's and gender studies perspective. Analyzes the intersections of gender, race, class, sexual orientation and age in media such as popular literature, film, television, advertisements, digital media and the Internet.

#### WGS 2300 Gender and Health (3)

Health concerns that are also related to gender, including disparities and differences in health needs and responses, historical and contemporary ideas about health and gender and how gender and health intersect with class, ethnicity, age and place.

## WGS 2500 Introduction to Women's & Gender Studies (3)

This is a General Education course. *Credit will not be given for this course and WGS 2501*. Interdisciplinary study of women's lives: work, family, sexuality, economic development, political and social change; variance in sex roles among cultural groups and in different historical periods.

## WGS 2501 HONORS: Introduction to Women's & Gender Studies (3)

This is a General Education course. *Same as WGS 2500, with special honors emphasis for qualified students. Credit will not be given for this course and WGS 2500.* 

### WGS 2900 Gender, Race and Nation (3)

This is a General Education course. The constructs of gender and sexuality across diverse racial, ethnic, cultural and class boundaries.

### WGS 3150 Survey of Feminist Theory (3)

Interdisciplinary study of a range of feminist theories through which to consider the roles of women, gender and sexuality.

## WGS 4028 Gender and American Politics (3) See POLI 4028.

**WGS 4087 Gender, Place and Culture (3)** See GEOG 4087.

## WGS 4500 Special Topics in Women's & Gender Studies (3)

*Prereq.:* WGS 2500 May be taken for a max. of 6 sem. hrs. of credit when topics vary. Issues central to contemporary feminist inquiry.

#### WGS 4541 Gender and the Law (3)

*Prereq.: permission of department.* Women's de jure and de facto legal status in U.S. jurisdictions; the history of suffrage and demands for equal rights for men and women, violence against women and violence committed by women, property rights, inheritance rights, reproductive rights, marriage, child custody, the definition of family, Title IX issues, employment discrimination, and gender issues in the legal profession.

## WGS 4900 Independent Reading and Research in Women's & Gender Studies (3)

Prereq.: WGS 2500 and permission of instructor and department. May be taken for a max. of 6 sem. hrs. when topics vary. Reading and research on selected topics that emphasize feminist interdisciplinary approaches.

## WGS 7150 Seminar in Feminist and Gender Theory (3)

Topics in recent and contemporary theory in a range of disciplines including the humanities, social sciences, natural and physical sciences, design and education; students are encouraged to develop research projects relevant to their primary disciplines and to their research interests.

## WGS 7500 Special Topics on Women's and Gender and Sexuality Studies (3)

*Prereq.*: Permission of department. May be taken for a max. of 6 hrs. of credit when topics vary. Topics in a range of disciplines including the humanities, social sciences, natural and physical sciences, art + design, and education; students are encouraged to develop research projects relevant to their primary disciplines and to their research interests.

## WGS 7900 Independent Reading and Research in Women's & Gender Studies (3)

Prereq.: permission of instructor and department. May be taken for a max. of 6 sem. hrs. of credit.