

Agriculture

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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 more than 40 majors and areas of concentration within 11 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 six focus areas that are core to the college's strategic agenda.

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 six 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
- Human resource development

COORDINATION WITH THE LSU AGRICULTURAL CENTER

The College of Agriculture, in cooperation 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 and 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.

COLLEGE OF AGRICULTURE • UNDERGRADUATE DEGREES		
Departments/Schools	Curricula	Degrees
Department of Agricultural Economics & Agribusiness	Agricultural Business	Bachelor of Science
Department of Biological & Agricultural Engineering	(see College of Engineering)	
Department of Entomology	Plant and Soil Systems	
Department of Experimental Statistics	(see “Graduate School/Professional Programs” section of this catalog)	
Department of Food Science	Food Science and Technology	
Department of Plant Pathology & Crop Physiology	Plant and Soil Systems	
School of Animal Sciences	Animal, Dairy, and Poultry Sciences	
School of Human Ecology	Child and Family Studies	
	Nutritional Sciences	
	Textiles, Apparel, and Merchandising	
School of Human Resource Education & Workforce Development	Human Resource Education	
School of Plant, Environmental, & Soil Sciences	Environmental Management Systems	
	Plant and Soil Systems	
School of Renewable Natural Resources	Forestry (Forest Management)	
	Natural Resource Ecology and Management	Bachelor of Science

Similarly, research, teaching, and extension activities in foreign countries are made an active part of the classroom instruction.

Livestock include purebred herds of Angus, Brahman, and Hereford cattle that are used in teaching and research studies. Artificial insemination and embryo transfer are used to incorporate current genetics from leading herds in Louisiana and throughout the U.S. Other herds of beef cattle near the campus include breeds and crosses representative of the Southern beef cattle industry. Brahman-British cow herds are bred to either British or heavy muscled terminal sire breeds such as Charolais or Belgian Blue

bulls to produce a broad range of cattle types for research and teaching purposes. The dairy herd is composed of the Holstein breed.

Breeds of sheep include Gulf Coast (Louisiana) Native and Suffolk. The swine herd is comprised of purebred Yorkshires and a crossbred herd of Yorkshire-Landrace sows that are bred to heavy muscled Hampshire, Duroc, or commercial breeding company hybrid line boars to produce market hogs that are representative of the swine industry. A number of Quarter Horses and grade mares are maintained for research and instruction. The Dairy Improvement Center cooperates with Genex in the operation of a commercial

artificial breeding program. Commercial strains of poultry are used in instruction and research. Research and teaching with poultry are conducted at a modern state-of-the-art facility. Totally enclosed tunnel-ventilated houses are designed to conduct research with broilers, layers, and broiler-breeders.

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.

- Student transferring from another academic unit on the LSU campus will be admitted to the College of Agriculture after they have earned a minimum of 30 hours with a 2.00 grade point average (2.20 for education certification programs) on all LSU work and on all college work. In addition, the student must have a "C" or better in MATH 1021 or higher and ENGL 1001 (1004 for international students). Students from another institution must also meet University transfer admission requirements.
- On recommendation of the appropriate department head and the dean of the college, probationary admission may be granted in special cases.

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 semesters (or one semester and a summer term) and whose LSU or overall grade point average is below a 2.00, will be declared ineligible to continue in the College of Agriculture for one regular semester.
- 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.

LOUISIANA CONSORTIUM OF PUBLIC AGRICULTURAL COLLEGES

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.

LSU COURSE EQUIVALENCIES FOR THE LCPAC CORE		
CORE COURSE	HOURS OF CREDIT	LSU COURSE EQUIVALENT
Agriculture (Animal)	3	Animal Science 1011 or Dairy Science 1048 or Poultry Science 1049
Agriculture (Plant)	3	Horticulture 2050 or Agronomy 1051 or 2051
Agriculture (Electives)	2	Any 1000- or 2000-level agricultural course
Art	3	See gen. ed. requirements in this catalog.
Biological Sciences	8	Biological Sciences 1201, 1202, 1208, 1209, 1402
Chemistry	8	Chemistry 1201, 1202, 1212
Communication	3	Communication Studies 2060
Computer Science	3	Experimental Statistics 2000
Economics	3	Economics 2030
English Composition	6	English 1000/1001, 1002*
English Literature	3	English 3020 or 3022 or 2025 or 2027 or 3070 or 2148
History	3	History 1001 or 1003 or 2001 or 2002 or 2011 or 2012 or 2021 or 2022 or 2055 or 2057
Humanities Electives	3	See gen. ed. requirements in this catalog.
Mathematics	6	Mathematics 1021;* 1022 or 1431
Social Sciences Electives	3	See gen. ed. requirements in this catalog.
TOTAL HOURS	60	

* A grade of "C" or higher is required in ENGL 1001 and MATH 1021 to receive a degree in Agriculture from LSU.

READMISSION TO THE COLLEGE

Students who have completed terms of scholastic suspension from the University may apply for readmission through the Office of Undergraduate Admissions. 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.

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.
- The last 30 semester hours of the degree program must be taken in residence in the College of Agriculture. Courses taken through independent study 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.

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 course work 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 LSU System 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

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.

► Agricultural Business

To graduate with a minor in agricultural business, students in the College of Agriculture must complete:

- AGECE 1003, 3213, 3413, 4403; and EXST 2201
- at least six credit hours of approved electives chosen from AGECE 2003, 3003, 3803, 4203, 4213, 4413, 4433, 4443, 4503, 4603, 4613; ACCT 2001, 2021, 2101; ECON 2030, 2035, 4120, 4440, 4520, 4540, 4550, 4720; BLAW 3200, 3201, FIN 3351, 3440, 3636, 3715; MGT 3200, 3320, 3500, 4420, 4523, 4620; MKT 3401, 3427, 3431, 3441, 4423; and MATH 1431. Students interested in pursuing the MS in agricultural economics should elect MATH 1431 and ECON 4720

The minor in agricultural business is not available to students majoring in agricultural business.

► Agricultural Pest Management

To graduate with a minor in agricultural pest management, students must complete a minimum of 18 hours of course work in pest management. Specific requirements include: ENTM 2001 or PLHL/ENTM 2050; PLHL 4000; AGRO 4070; and eight additional hours chosen from ENTM 4001, 4005, 4006, 4012, ENTM/PLHL 4018, PLHL 4001, AGRO 4071. Of the eight elective hours, at least one course must be from entomology.

► Agriculture for Students in Mass Communication

This minor is open only to mass communication students.

To graduate with a minor in agriculture, students must complete 18 hours. A minimum of nine hours must be at the 3000 and 4000 level:

- AGECE 2003, HUEC 2010, AGRO 1051, HUEC 3061.
- Six hours from any course (3000/4000 level) within the College of Agriculture.

► Agronomy

To graduate with a minor in agronomy, students in this college must complete 18 hours consisting of AGRO 2051, 3000, and two courses chosen from AGRO 3011, 3012, 3013; and nine additional hours chosen from AGRO 3040, 4005, 4052, 4055, 4056, 4058, 4064, 4078, 4080, 4086, 4087, 4091, 4092.

► Animal, Dairy, and Poultry Sciences

To graduate with a minor in animal, dairy, and poultry sciences (18 hrs.), students must complete a minimum of 18 hours of course work 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.

► Applied Statistics

To graduate with a minor in applied statistics, students must complete a minimum of 18 hours of course work consisting of:

- EXST 2201, 3201, 4050; and
- Six hours from EXST 2215, 4012, and 4087.

► Aquaculture

This minor is not available to students majoring in the natural resource ecology and management curriculum.

To graduate with a minor in aquaculture (19-20 hrs.), students must complete the following: required courses (10 hrs.)—RNR 2002, 4022, and 4025; fisheries and aquaculture—at least six hours selected from the following: RNR 4023, 4037, 4040, 4106, or 4145; plant taxonomy and ecology—select one from: RNR 4020, OCS 4308, or BIOL 4052.

► Business Administration

To graduate with a minor in business administration (18 hrs.), students must complete ACCT 2000; ECON 2030; FIN 3715; ISDS 1100; MGT 3200; MKT 3401.

► Entomology

To graduate with a minor in entomology, students must complete a minimum of 18 hours of course work in entomology with at least nine hours at or above the 3000 level. Specific requirements include ENTM 2001 and 4005 and 11 hours from the following: ENTM 2050, 3002, 4001, 4002, 4006, 4007, 4011, 4012, 4015, 4016, 4018, 4040, 4099, 4100, and 4199.

► Environmental Management Systems

To graduate with a minor in environmental management systems, students must complete 18 hours consisting of EMS 1011, 3040, and 3050, and eight hours chosen from EMS 3045, 4010, 4020, 4055 or 4056.

Note: some courses require prerequisites (see the section "Courses of Instruction" in this catalog or consult the instructor).

► Fisheries

This minor is not available to students majoring in the natural resource ecology and management curriculum.

To graduate with a minor in fisheries (19-20 hrs.), students must complete the following courses: fisheries—RNR 4023, 4025, 4037, 4040, and 4145; plant taxonomy and ecology—select one from RNR 4020, OCS 4308, or BIOL 4052.

► Forestry

To graduate with a minor in forestry students must complete the following: forest biology—RNR 2001, 2101; silviculture—RNR 3002; mensuration—RNR 2102, 3103; forestry electives—select four hours from ENTM/PLHL 4018; RNR 4021, 4030, 4032, 4033, 4036, 4038, or 4064.

► Horticulture

To graduate with a minor in horticulture, students must complete seven hours consisting of HORT 2050 and 2061; and 11 additional hours in HORT. This minor is not available to students majoring in plant and soil systems.

► Leadership Development

Students from all curricula will find themselves thrust into leadership roles within their profession and chosen organizations. This minor enables students from any major to develop the skills and competencies for leadership in any setting, including organizations and communities.

To graduate with a minor in *leadership development*, students must complete HRE 2723, 3723, 4723, 4804, AND six hours of electives from a list of courses approved by the departmental faculty in the School of Human Resource Education and Workforce Development.

An Honors version of the minor sequence is available and consists of HRE 2724, 3724, 4724, HNRS 3100 AND six hours of electives from a list of courses approved by the department faculty in the School of Human Resource Education and Workforce Development.

► Nutritional Sciences

To graduate with a minor in nutritional sciences, students must complete 18 hours including HUEC 2010, 2110, and 3012. In addition, students must choose one of the two area of study options listed below:

- Community Nutrition—HUEC 2019, 3116, and either HUEC 3010 or 4016
- Nutrition—HUEC 4010, 4011, and 4014

► Rural Sociology

To graduate with a minor in rural sociology, students in the College of Agriculture must complete (1) SOCL 1001 or 2001; (2) SOCL 2351; (3) two of the following: SOCL 4351, 4551, 4701, or 4711; and (4) at least six additional elective hours in sociology. Students interested in pursuing a graduate degree in rural sociology are encouraged to elect SOCL 2211 and 3101.

► Textiles, Merchandising, & Apparel

This minor is not available to students majoring in textiles, apparel, and merchandising.

To graduate with a minor in textiles, merchandising, and apparel, students in the College of Agriculture must complete 10 hours consisting of HUEC 2040, 2041, 2045, 3032; and nine additional hours chosen from HUEC 3030, 4041, 4043, 4044, 4070, 4071, or 4072. Students must comply with all prerequisites and must achieve a minimum grade of "C" in every course taken in the minor field.

► Vocational Education

To graduate with a minor in vocational education, students in the College of Agriculture must complete 18 sem. hours:

HRE 2001, 3055, 3062, 3201, 4301; 6 hours from HRE 4004, 4011, 4504, 4704, 4705; three sem. hours chosen from any course offered by the School of Human Resource Education & Workforce Development.

► Wildlife Ecology

This minor is not available to students majoring in the Natural Resource Ecology and Management curriculum.

To graduate with a minor in wildlife ecology (20-22 hrs.), students must complete the following: (1) Required courses—RNR 2031, 2039, 3018; (2) Area courses—one course selected from the following: RNR 2102, 3004, 4011, 4103, 4107 or 4900; (3) Plant Taxonomy—one course selected from the following: RNR 2001, 4020, BIOL 4041 or 4055; (4) Animal Taxonomy—one course selected from the following: RNR 4145 or BIOL 4141, 4142, 4146.

INDEPENDENT STUDY AND EXTENSION CREDIT

Up to one-fourth of the number of hours required for the baccalaureate degree may be taken through Continuing Education, either through independent study or as extension credit or both. Before scheduling such work, however, students should obtain approval from the dean of the college.

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.

PHI KAPPA PHI

Founded in 1897 at the University of Maine, Phi Kappa Phi is the nation's oldest, largest, and most selective honor society for all academic disciplines. Its chapters are on nearly 300 campuses in the United States,

Puerto Rico, and the Philippines. Each year, approximately 30,000 members are initiated. Some of the organization's more notable members include former President Jimmy Carter, writer John Grisham, NASA astronaut Wendy Lawrence, and Netscape founder James Barksdale. The LSU chapter was founded in 1930 as the 43rd chapter in the nation.

The mission of Phi Kappa Phi is to recognize and promote academic excellence in all field of higher education and to engage the community of scholars in service to others. Phi Kappa Phi is unique because it recognizes superior scholarship in all academic fields, rather than restricting membership to a limited field. Juniors in the top 7.5 percent and seniors and graduate students in the top 10 percent of their classes may be invited to become members of Phi Kappa Phi. New LSU Phi Kappa Phi members are initiated and honored in the spring semester each year and wear identifying ribbons on their academic gowns at commencement exercises. Additional information about the Society may be found at www.phikappaphi.org.

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 human ecology, renewable natural resources economics, business, food science, human resources, workforce development, veterinary medicine, horticulture, and traditional agricultural animals and crops.

GRADUATE PROGRAMS

The Master of Agriculture degree program is an interdisciplinary, non-thesis graduate program. The interdisciplinary nature of the program should be particularly attractive to non-traditional students from the public and private sectors seeking professional development or employment as agricultural professionals. The program should be attractive to those same individuals who do not require a significant level of specialization in a research-oriented program. The program requires a minimum of 36 hours of degree credit and includes the completion of a special project. All of the 13 academic units within the college along with the faculty in each may participate as well as some faculty in other colleges or schools. Students must choose a primary and secondary area of study. This program is designed for the student who is seeking further professional development in a non-research oriented graduate program.

Through the Graduate School, the college offers master's and doctoral degrees in the fields of agricultural economics,

agronomy, animal and dairy sciences, entomology, food science, forestry, horticulture, human ecology, human resource education, and plant health. A doctoral degree in wildlife and fisheries science is also offered. In addition, master's degrees are offered in applied statistics, fisheries, and wildlife. For further details, consult the "Graduate School • Professional Programs" section of this catalog.

AGRICULTURAL STUDENT ASSOCIATION

Membership into the Agricultural Student Association (ASA) is open to all students in the College of Agriculture as well as any student in University College with a declared major in agriculture. The ASA brings the various student organizations in the college together for cooperative events and serves in an advisory role to the dean of the college. The ASA is governed by the Agricultural Student Council (ASC) that consists of representatives from each student organization in the college and officers who are elected annually.

PREVETERINARY MEDICINE

The preveterinary 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 preveterinary program will allow you to pursue an undergraduate degree in any of the following areas: animal, dairy, and poultry science and renewable natural resources. 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 in veterinary science required for a Doctorate of Veterinary Medicine.

PREMEDICINE AND PREDENTAL

The College of Agriculture at LSU provides unique opportunities that prepare today's students to enter careers in medicine, dentistry, and allied health fields. Programs within the School of Animal Sciences, Department of Biological Engineering, and the School of Human Ecology offer appealing options for students; however, students in the college's departments and schools can fulfill premedical or predental 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.

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

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PROFESSORS • Cramer, Dooley, Gillespie, Guidry, Harrison, Hinson, Johnson, Kazmierczak, P. Kennedy, Paxton, Salassi, Singelmann, Zapata
ASSOCIATE PROFESSORS • Caffey, Dunn, Gauthier, Henning, Mishra, Paudel, Schafer
ASSISTANT PROFESSORS • Barnes, Detre, Fannin, Westra
INSTRUCTOR • Niu
ADJUNCT FACULTY • Hill, G. Kennedy

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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.

CURRICULUM IN AGRICULTURAL BUSINESS

TOTAL SEM. HRS. • 121

General Education Course Requirements • Arts, humanities, and social sciences—select from approved general education courses listed in a separate section of this catalog.

FRESHMAN YEAR	SEM. HRS.
Agricultural Economics 1003.....	3
Gen Ed Nat'l Sciences Sequence.....	6
Gen Ed Nat'l Sciences Course (physical/life, not same as sequence).....	3
English 1001.....	3
Mathematics 1021, 1431.....	6
College of Agriculture elective.....	3
General education arts course.....	3
Electives or ROTC.....	3
	30

SOPHOMORE YEAR	SEM. HRS.
Communication Studies 2060 or 1061 ¹	3
Economics 2030 and Agricultural Economics 2003 or Economics 2000 and 2010.....	6
Economics 2035.....	3
English 2000; 2001, 2002, 2005, 2007, 2008, 2009, 2012, 2024, 3001, 3003, 3004, or 3101.....	6
Experimental Statistics 2201 or Information Systems and Decision Sciences 2001 ²	3-4
General education humanities course.....	3-6
College of Agriculture elective.....	3
Elective or ROTC.....	4-0
	31

¹Students taking CMST 1061 must take six hours of General Education Humanities courses during the sophomore year; students taking CMST 2060 must take three hours of General Education Humanities courses plus three hours of general electives or ROTC during the sophomore year.

²Students electing to take ISDS 2001 must take an additional hour of general electives or ROTC.

JUNIOR YEAR	SEM. HRS.
Accounting 2001, 2101.....	6
Agricultural Economics 3003, 3213, 3413, 3503 or 4613.....	12
Business Law 3200 or 3201.....	3
Management 3200.....	3
Marketing 3401.....	3
College of Agriculture elective.....	3
	30

SENIOR YEAR	SEM. HRS.
Agricultural Economics 4273, 4403, 4433, 4603.....	12
General education humanities course.....	3
Area of concentration courses/approved AGECE electives.....	9
Area of concentration courses/general electives.....	6
	30

Areas of Concentration◆ **Agribusiness Finance**

Required Courses (12 hrs.)—AGEC 3303 and 4443; and six hours to be selected from one of the following areas: (1) *Real Estate*—FIN 3351, 3352, 3353, 3355 or (2) *Investment*—FIN 3440, 3632, 3636, 3715, 3717, 3826

◆ **Agribusiness Management**

Required Courses (12 hrs.)—six hours to be selected from a list of AGECE courses and six hours to be selected from a list of INED and MGT courses; both lists are available in the Department of Agricultural Economics & Agribusiness

◆ **International Business**

Required Courses (15 hrs.)—AGEC 4613; and six hours chosen from ECON 4020, 4025, 4030, 4040, 4050, 4520, or 4550; MGT 4420, MKT 4443; and six hours foreign language

◆ **Rural Development**

Required Courses (15 hrs.)—AGEC 4623; SOCL 2001 or 2351; SOCL 4351; and six hours chosen from ECON 4070, 4110, 4130, SOCL 4551, GEOG 4047, 4077

DEPARTMENT OF BIOLOGICAL & AGRICULTURAL ENGINEERING

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PROFESSORS EMERITI • Brown, Cochran, Lawson, Rester, Sistler, Stipe, Verma, Wright
PROFESSORS • Bengtson, Branch, Hannaman, Lima, Thomas
ASSOCIATE PROFESSORS • Hall, Mailander
ASSISTANT PROFESSORS • Barbosa, Boldor, Mashriquis, Monroe, Morris, Sabliov, Sathivel, Theegala
PROFESSIONAL-IN-RESIDENCE • Grymes
ADJUNCT FACULTY • Clemmens, Fouss, Frandsen, Greenland, Gregory, Li, Lopez, Parish, Robbins, Saska, Velupillai

CURRICULUM:

• Biological Engineering
(See the "College of Engineering" section of this catalog.)

DEPARTMENT OF ENTOMOLOGY

HEAD • Schowalter, Professor
OFFICE • 404 Life Sciences Building
TELEPHONE • 225-578-1634
FAX • 225-578-1643

PROFESSORS EMERITI • Goyer, Riley

PROFESSORS • Bagwell, Baldwin, Boethel, Carlton, Foil, Fuxa, Grodner, Hammond, Henderson, Johnson, Leonard, Morgan, Ottea, Pollet, Prowell, Reagan, Ring, Schowalter, Story, Stout
ASSOCIATE PROFESSORS • Hooper-Bui, Kramer
ASSISTANT PROFESSORS • Huang, Hummel, Husseneder
ADJUNCT FACULTY • Burriss, Danka, Harbo, Harris, Klepzig, Rinderer, White

CURRICULUM COORDINATOR • Reagan, Professor
OFFICE • 404 Life Sciences Building
TELEPHONE • 225-578-1634

CURRICULUM:

• Plant and Soil Systems (Agricultural Pest Management Area; Urban Entomology Area)

PLANT AND SOIL SYSTEMS

The curriculum in plant and soil systems consolidates the curricula for the Departments of Agronomy and Environmental Management, Entomology, Horticulture, and Plant Pathology & Crop Physiology. Students in this curriculum take core courses that provide a basic knowledge required for specialization in one of the seven areas of concentration: agricultural pest management; crop management; horticultural science; environmental horticulture; soil science; turfgrass management; and urban entomology. Each area is further individualized by the addition of approved and free electives.

Students interested in pursuing a minor in agricultural pest management, agronomy, entomology, or horticulture may take suggested courses for the minor as part of the approved and free electives. (See the section on "Minor Field Requirements" in this chapter for details.)

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, and public health insect management.

In both concentrations, a range of restricted and nonrestricted 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; and public health insect management. Both concentrations require students to complete an internship where practical experience is gained in agricultural or urban pest management areas.

CURRICULUM IN PLANT AND SOIL SYSTEMS

TOTAL SEM. HRS. • 127-129

¹ For crop management and soil science areas of concentration

² For horticultural science; environmental horticulture, turfgrass management; and landscape management areas of concentration

³ For agricultural pest management area of concentration

⁴ For urban entomology area of concentration

⁵ For landscape management area of concentration

⁶ For horticultural science area of concentration

FRESHMAN YEAR	SEM. HRS.
Biological Sciences 1201, 1202, 1208 1209 or 1001, 1002, 1005 ⁵	8
Chemistry 1201, 1202, 1212.....	8
English 1001, 2000.....	6
Mathematics 1021.....	3
Mathematics 1022 ² or Experimental Statistics 2201 ^{1,3,4}	3-4
General education arts course.....	3
General education social sciences course.....	3
General education humanities course.....	3
	34-35

SOPHOMORE YEAR	SEM. HRS.
Agronomy 2051.....	4
Chemistry 2060 or 2261.....	3
English 2000.....	3
Agricultural Economics 2003 or Economics 2030.....	3
Communication Studies 2060.....	3
General education humanities course.....	3
Area of concentration courses.....	12-13
Approved electives.....	3-2
	34

JUNIOR YEAR	SEM. HRS.
Biological Sciences/Plant Health 3060 ⁶ or Horticulture 2860.....	3-4
Agronomy 3010 or 3090 ¹ or Horticulture 3000 or 3010 ² or Plant Health/Entomology 3000 ^{3,4}	3
Plant Health 4000.....	3
Area of concentration courses.....	9-12
Approved electives.....	9-5
Electives or ROTC.....	3
	30

SENIOR YEAR	SEM. HRS.
Agronomy 4052 ^{1,2,3} or Entomology 4001 ¹	4-3
Area of concentration courses.....	10-9
Approved electives.....	12-15
Electives or ROTC.....	3
	29-30

Areas of Concentration

♦ Agricultural Pest Management (29-32 hrs.)

Dairy Science 2072 or Biological Sciences 2153; Biological Sciences 4041 or 4055; Plant Health/Entomology 3002; Plant Health 4001; Agronomy 4070, 4071; Entomology 2001, 4006; Entomology 4001, 4012, Entomology/Plant Health 4018, Plant Health/Entomology 3000, Plant Health 4014 (select two)

A list of approved electives available in the Department of Entomology.

♦ Urban Entomology

Required Courses (31-32 hrs.)—Dairy Science 2072 or Biological Sciences 2153; Biological Sciences 2051; Entomology 2001; Plant Health/Entomology 3002; Entomology 4005, 4006, 4012; Entomology 4007, 4016, or Entomology/Plant Health 3000; Entomology/Plant Health 4018; Agronomy 4070 or 4071

A list of approved electives is available from the Department of Entomology.

DEPARTMENT OF EXPERIMENTAL STATISTICS

INTERIM HEAD • Geaghan, Professor
OFFICE • 161 Agricultural Administration Building
TELEPHONE • 225-578-8303
FAX • 225-578-8344
EMAIL • head@stat.lsu.edu
WEB SITE • www.stat.lsu.edu

PROFESSORS • Blouin, Escobar, Geaghan, Koonce, Marx
ASSOCIATE PROFESSORS • Monlezun
ASSISTANT PROFESSORS • Li, McCarter, Wang
INSTRUCTORS • Cox, McKenna, Swoope
ADJUNCT FACULTY • Georgiev, LaMotte, Leitner, Markward, Meeker, Mercante, Thomson, Velasco-Gonzales, Volaufova

CURRICULUM:

• No undergraduate program is available. See the Graduate Bulletin 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 Bulletin.

DEPARTMENT OF FOOD SCIENCE

HEAD • Finley, Professor
OFFICE • 111 Food Science Building
TELEPHONE • 225-578-5207
FAX • 225-578-5300

PROFESSORS EMERITI • Cross, Farr, Grodner, Hoskins, Liuzzo, Mullins, Rao
PROFESSORS • Bankston, Day, Godber, Moody, Prinyawiwatkul
ASSOCIATE PROFESSORS • Aryana, Bell, Janes, King, Losso
ASSISTANT PROFESSORS • Ge, Sathivel, Xu
ADJUNCT FACULTY • Beaulieu, Grimm, Lima, Malekian, Marshall, McMillin, Portier, Shih, Supan, Wilson

CURRICULUM COORDINATOR • King, Associate Professor
OFFICE • 111 Food Science Building
TELEPHONE • 225-578-5157

CURRICULUM:

• Food Science & Technology

FOOD SCIENCE & TECHNOLOGY

The curriculum in Food Science and Technology, following guidelines obtained from the Institute of Food Technologists, provides students a common core of courses. These courses provide a strong basic foundation for the study of post-production processing of food products. By selecting from one of four areas of concentration—Food Safety and Applied Microbiology, Food Processing and Product Development, Food Chemistry and Analysis, or Food Business and Marketing, students can target a program of study suited to their specific needs and interests. Through our elective course, Food Science Research, FDSC 3900, students can gain hands-on experience in research or product development. Optional summer internships with food companies are also available. Students will be prepared to enter into several different career paths in the food industry or to pursue graduate study.

Food scientists use basic principles and knowledge of chemistry, microbiology, engineering, and business to research, develop, process, evaluate, package, and distribute foods. Food scientists are responsible for the safety, taste, acceptability, and nutrition of processed foods. They develop new food products and process technology for manufacturing foods. Food scientists may concentrate on basic research, product development, processing and quality assurance, packaging, or market research. Food scientists work in food or food ingredient processing plants where raw foods are converted into beverages; cereals; canned foods; desserts and candy; dairy products; meats, poultry, fish and seafood products; fruit and vegetable products; snacks and

convenience foods; and animal foods.

Food scientists in basic research conduct investigations into the physical, chemical, and biological makeup of foods. They study the changes that occur in the food products during processing and storage. Food scientists are also active in biotechnology and may work with plant breeding and microbial fermentation products for further processing. Food scientists in applied research work on product development. They create new food products with longer shelf life such as frozen concentrated orange juice, freeze-dried coffee, dehydrated soups and eggs, precooked sausages, granola bars, and juices in juice boxes. Food scientists also work with marketing people to test public acceptance of new products and prepare nutritional labels found on food packages. In processing plants, food scientists prepare specifications and schedules for production operations. Food scientists in quality assurance ensure that foods in every stage of processing meet government standards through microbiological and shelf-life testing.

The Food Safety and Applied Microbiology area of concentration enhances students' knowledge in the critical area of quality control and government regulation of food manufacturing. Food microbiology has become an important part of food biotechnology in producing healthy bioprocessed foods and ingredients. Students pursuing this concentration will be prepared for careers in applied microbiology, quality control, or regulatory fields. The Food Processing and Technology area of concentration provides students background knowledge in processing plant supervision, product development, and food engineering. The Food Chemistry and Analysis area of concentration prepares students for careers in food quality assurance and technical services. Food chemistry is one of the most important aspects of food quality, and analytical capabilities are essential for proper food quality assurance. The Food Business/Marketing area of concentration prepares students for careers in the food business, technical sales and food product development systems.

CURRICULUM IN FOOD SCIENCE & TECHNOLOGY

TOTAL SEM. HRS. • 122

FRESHMAN YEAR	SEM. HRS.
Biological Sciences 1201, 1208, 1202, and 1209.	8
Chemistry 1201, 1202, 1212.	8
English 1001.	3
Mathematics 1022 and 1441.	6
General education arts course.	3
	28
SOPHOMORE YEAR	SEM. HRS.
Biological Sciences 2051, 2083.	7
Chemistry 2060.	3
Communication Studies 2060.	3
Economics 2030.	3
English 2000.	3
Food Science 2000.	3
Human Ecology 2010.	3

Physics 2001.....	3
Area requirements.....	3
	—
	31

JUNIOR YEAR	SEM. HRS.
English 3002.....	3
Experimental Statistics 2201.....	4
Food Science 4050, 4060, 4075, 4162.....	15
Area requirements.....	11
	—
	33
SENIOR YEAR	SEM. HRS.
Food Science 4005, 4040, 4070, 4076, 4095.....	16
Food Science 3999.....	1
General education humanities courses.....	6
General education social sciences course.....	3
Area requirements.....	0-4
Electives.....	4-0
	—
	30

Areas of Concentration

◆ Food Business and Marketing

Required Courses (18 hrs.)—choose from either (1) ACCT 2001; ECON 2035; FIN 3715; ISDS 1100; MGT 3200; MKT 3401; or (2) AGECE 1003, 2003, 3213, 3413, 4403; MGT 3200

Note: Students must choose to take one set of courses from either option one or option two.

◆ Food Chemistry and Analysis

Required Courses (15 hrs.)—CHEM 2001, 2002; DARY 2085, 2093; FDSC 3000; HORT 4096

◆ Food Processing and Product Development

Required Courses (16 hrs.)—ANSC 3053 or PLSC 4032; FDSC 3000, 4086; DARY 4020; HORT 4051

◆ Food Safety and Applied Microbiology

Required Courses (14 hrs.)—BIOL 4110; FDSC 3000, 4163; DARY 4020

DEPARTMENT OF PLANT PATHOLOGY & CROP PHYSIOLOGY

HEAD • Berggren, *Professor*
OFFICE • 306 Life Sciences Building
TELEPHONE • 225-578-1366
FAX • 225-578-1415

PROFESSORS • Berggren, Clark, Cohn, Damann, Holcomb, Hollier, Hoy, McGawley, Murai, Overstreet, Rush, Schneider, Valverde
ASSISTANT PROFESSORS • Aime, Chen, Ferrin, Ham

ADJUNCT FACULTY • Black, Bond, Colyer, Dyer, Groth, Linscombe, Padgett
CURRICULUM COORDINATOR • Hoy, *Professor*

OFFICE • 302 Life Sciences Building
TELEPHONE • 225-578-1464

CURRICULUM:

• Plant and Soil Systems (Agricultural Pest Management Area)

PLANT AND SOIL SYSTEMS

The curriculum in plant and soil systems consolidates the curricula for the Departments of Agronomy & Environmental Management, Entomology, Horticulture, and Plant Pathology & Crop Physiology.

Students in this curriculum take core courses that provide a basic knowledge required for specialization in one of the seven areas of concentration: agricultural pest management, crop management, horticultural science, environmental horticulture, soil science, turf grass management, and urban entomology. Each area is further individualized by the addition of approved and free electives.

Students interested in pursuing a minor in agricultural pest management, agronomy, entomology, or horticulture may take suggested courses for the minor as part of the approved and free electives. (See the section on "Minor Field Requirements" in this chapter for details.)

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 nonrestricted 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.

CURRICULUM IN PLANT AND SOIL SYSTEMS

TOTAL SEM. HRS. • 127-129

¹ For crop management and soil science areas of concentration

² For horticultural science; environmental horticulture, turfgrass management; and landscape management areas of concentration

³ For agricultural pest management area of concentration

⁴ For urban entomology area of concentration

⁵ For landscape management area of concentration

⁶ For horticultural science area of concentration

FRESHMAN YEAR	SEM. HRS.
Biological Sciences 1201, 1202, 1208	
1209 or 1001, 1002, 1005 ⁵	8
Chemistry 1201, 1202, 1212.....	8
English 1001, 2000.....	6
Mathematics 1021.....	3
Mathematics 1022 ² or Experimental Statistics 2201 ^{1,3,4}	3-4
General education arts course.....	3
General education social sciences course.....	3
General education humanities course.....	3
	—
	34-35

SOPHOMORE YEAR	SEM. HRS.
Agronomy 2051.....	4
Chemistry 2060 or 2261.....	3
English 2000.....	3
Agricultural Economics 2003 or Economics 2030.....	3
Communication Studies 2060.....	3
General education humanities course.....	3
Area of concentration courses.....	12-13
Approved electives.....	3-2
	—
	34

JUNIOR YEAR	SEM. HRS.
Biological Sciences/Plant Health 3060 ⁶ or Horticulture 2860.....	3-4
Agronomy 3010 or 3090 ¹ or Horticulture 3000 or 3010 ² or Plant Health/Entomology 3000 ^{3,4}	3
Plant Health 4000.....	3
Area of concentration courses.....	9-12
Approved electives.....	9-5
Electives or ROTC.....	3
	—
	30

SENIOR YEAR	SEM. HRS.
Agronomy 4052 ^{1,2,3} or Entomology 4001 ⁴	4-3
Area of concentration courses.....	10-9
Approved electives.....	12-15
Electives or ROTC.....	3
	—
	29-30

A list of approved electives is available from the Department of Plant Pathology & Crop Physiology.

Area of Concentration

◆ Agricultural Pest Management

Required Courses (30-32 hrs)—Dairy Science 2072 or Biological Sciences 2153; Biological Sciences 4041 or 4055; Plant Health/Entomology 3002; Plant Health 4001; Agronomy 4070, 4071; Entomology 2001, 4006; Entomology 4001, 4012, Entomology/Plant Health 4018, Plant Health/Entomology 3000, Plant Health 4014 (select two)

SCHOOL OF ANIMAL SCIENCES

DIRECTOR • Humes, *Professor*
OFFICE • 105 J. B. Francioni Hall
TELEPHONE • 225-578-3241
FAX • 225-578-3279
E-MAIL • phumes@agcenter.lsu.edu

BOYD PROFESSOR • Godke
PROFESSOR EMERITI • Adkinson, Baham, Chandler, Gholson, Gough, Roussel, Rusoff, White
PROFESSORS • Bidner, Depew, Dumas, Franke, G. Gentry, Godke, Hansel, Hay, Humes, Jenny, McMillin, Page, Satterlee, Southern, Thompson
ASSOCIATE PROFESSORS • Aryana, Bondioli, Hutchison, Ingram, Lavergne, Williams
ASSISTANT PROFESSORS • Boenke, Rowntree
INSTRUCTOR • L. Gentry, Lackey
ADJUNCT FACULTY • Derouen, Jenkins, Leibo, McCormick, Miller, Moreira, Nipper, Owens, Paccamonti, Pope, Robbins, Sanson, Wyatt

CURRICULUM COORDINATORS:

- Animal Science: Bidner, *Professor*
116 Francioni Hall, 578-3437
- Dairy Science: Williams, *Associate Professor*
202A Dairy Science Building, 578-4574
- Poultry Science: Ingram, *Associate Professor*
118 Ingram Hall, 578-3950

CURRICULUM:

• Animal, Dairy, and Poultry Sciences (Animal Science Area, Dairy Production Area, Dairy Foods Technology Area, Poultry Science Area, Science and Technology Area, and Preveterinary Medicine)

The School of Animal Sciences offers programs in animal, dairy, and poultry sciences (animal, dairy, and poultry curriculum) that provide individuals with a broad educational background tailored to meet their needs and aptitudes. Such preparation provides graduates with employment opportunities in all phases of animal, dairy and poultry production, processing, distribution, marketing, research and teaching. Preparatory curricula also are provided for subsequent training at the graduate level or in veterinary medicine.

Qualified undergraduate students have the opportunity to participate in the Summer Internship Program with well-paid stipends. This program integrates academic experience on campus with work experience off campus, providing a total educational experience that prepares the student for responsible participation in industry following graduation.

ANIMAL, DAIRY, AND POULTRY SCIENCES

Students take basic courses during the first two years and follow a selected area of concentration during the junior and senior years. 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 approved and free electives. See the listing of College of Agriculture minors for 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 BIOL 1201 and 1208, 1202 and 1209, 2051, 2083; CHEM 2261, 2262, 2364 or CHEM 2060; MATH 1021 and 1022; PHYS 2001 and 2002; and SPCM 2010 or 2060 to meet admission requirements.

Graduates of the animal, dairy, and poultry 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.

CURRICULUM IN ANIMAL, DAIRY, AND POULTRY SCIENCES

TOTAL SEM. HRS. • 124

**The number of credit hours in each group in the junior and senior years depends on the area of concentration. The total for each year must equal that specified in the curriculum.*

¹*If a student has taken BIOL 1001, 1002, and 1005, then BIOL 1011 and 1012 must be taken in the sophomore year instead of BIOL 2051.*

²*If a student chooses the science and technology area of concentration, the freshman biological sciences courses must be BIOL 1201, 1208, 1202, 1209.*

FRESHMAN YEAR	SEM. HRS.
Animal Science 1011, or Dairy Science 1048, or Poultry Science 1049.	3
Biological Sciences 1001, 1002, 1005, ¹ or Biological Sciences 1201, 1208, 1202, 1209, ² or HNRS 1007, 1008.	8
Chemistry 1201, 1202, 1212.	8
English 1001 or 1003.	3
Mathematics 1021; 1022 or 1431 or 1550.	6-8
General education arts course	3
	31-33
SOPHOMORE YEAR	SEM. HRS.
Dairy Science 2072 or Biological Sciences 2153	3-4
Biological Sciences 2051	4
Chemistry 2060 or 2261.	3
Economics 2030 or AGECE 2003.	3
English 2000.	3

Communication Studies 2010 or 2060	3
General education humanities courses.	6
General education social sciences course.	3
Area of concentration course	3
	31-32

JUNIOR YEAR	SEM. HRS.
Experimental Statistics 2201.	4
Area of concentration courses*	10-18
Electives or ROTC*	14
	28-36
SENIOR YEAR	SEM. HRS.
Area of concentration courses*	5-17
Electives or ROTC*	13
	18-30

Areas of Concentration

◆ Animal Science

Required Courses (34 hrs.)—ANSC 2133, 3033, 3053, 4009, 4092; EXST 2000; VETS 2000 or 2020. Select ANSC 4018, 4045, and DARY 3010, and any two from ANSC 4001, 4081, 4084, 4086, 4088; or select ANSC 4094; FDSC 2000, 4040, 4162; and either FDSC 4005 or 4050

◆ Dairy Production

Required Courses (32 hrs.)—DARY 2040, 2049, 2075, 2085, 3010, 4043, 4045, 4046, 4047, 4051, 4054, 4118 and ANSC 4009
Approved Electives (15 hrs.)—Select 15 hours from the approved electives list available from the School of Animal Sciences.

◆ Dairy Foods Technology

Required Courses (31 hrs.)—DARY 2075, 2085, 2093, 4020, 4040, 4051, 4081; AGECE 3413, 4213, FDSC 3000; HUEC 2010
Approved Electives (18 hrs.)—Select 18 hours from the approved electives list available from the School of Animal Sciences.

◆ Poultry Science

Required Courses (13 hrs.)—PLSC 2040, 4032, 4052; PLSC 4031 or FDSC 4005; PLSC 4051 or 4040. Students must also take a total of 16 hrs. from: 2000-level and above ANSC, DARY, or PLSC courses, and/or any FDSC courses.

◆ Science and Technology

Required courses (32 hrs.)—Select at least 16 hours from courses in ANSC, DARY, PLSC, or VETS 2000, 2020; 16 hours from BIOL 3000-4999, CHEM 2000-4999, PHYS 2000-4999, or NS 4000-4999, or EXST 2000.

Animal Science Emphasis (12 hrs.)—Select from any ANSC courses (2000-4000 level).
Dairy Science Emphasis (12 hrs.)—Select from any DARY courses (2000-4000 level).
Poultry Science Emphasis (12 hrs.)—Select from any PLSC courses (2000-4000 level).

◆ Preveterinary Medicine

Required Courses (38 hrs.)—completion of first year of LSU School of Veterinary Medicine curriculum with a gpa of at least 2.00.

Animal, Dairy, Poultry, and Veterinary Science course (15 hrs.)—Select ANSC, DARY, or PLSC courses (2000-level and above) or VETS 2000, 2020.

Students entering the School of Veterinary Medicine after completion of the first three years of the animal, dairy, and poultry sciences curriculum (93 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 year 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.

SCHOOL OF HUMAN ECOLOGY

DIRECTOR • Martin, *Professor*
OFFICE • 125 Human Ecology Building
TELEPHONE • 225-578-2281
FAX • 225-578-2697
WEB SITE • www.huec.lsu.edu

PROFESSORS EMERITI • Burts, Clark, Cross, Draughn, Hegsted, Hildreth, Howat, Kelley, Nolen, Patrick, Younathan
PROFESSORS • Belleau, Chen, Garrison, Godber, J. Kuttruff, Lammi-Keefe, Lawrence, Martin, Murphy, Negulescu, O'Neil, Overstreet, Reames, Sasser, Summers, Tucker, Tulley
ASSOCIATE PROFESSORS • Keenan, Pierce, Roy, White
ASSISTANT PROFESSORS • Baumgartner, Benedict, Chaney, DiCarlo, Guarino, Liu, Marks, Park, Tuuri
INSTRUCTORS • Aghayan, Bourgeois, Channugam, Gioe, Holston, Marquette, McRoberts, Milioto, Myhand, Rabalais-Vinci, Welker
EXTENSION ASSOCIATES • Albarado, Braud, Fillastre, Nye, Pitts, Shaffers, Weston
ADJUNCT FACULTY • Argyropoulos, Buchanan, Champagne, Dhurandhar, Gettys, Greenway, C. Kuttruff, Laird, Monroe, Morrison, Most, Namwamba, Smith, Sothorn, Ye, Zhou, Zuberi

UNDERGRADUATE CURRICULUM
COORDINATOR • Bourgeois, *Instructor*
OFFICE • 133 Human Ecology Building
TELEPHONE • 225-578-1728
GRADUATE COORDINATOR • Kuttruff, *Professor*
OFFICE • 151 Human Ecology Building
TELEPHONE • 225-578-1600

CURRICULA:

- Child and Family Studies
- Nutritional Sciences
- Textiles, Apparel, and Merchandising

The School of Human Ecology offers undergraduate and graduate programs to prepare students for professional careers in the specialty areas.

The following undergraduate curricula are offered: nutritional sciences (dietetics and nutritional science/premedical concentrations); child and family studies (human services management and consumer sciences concentrations); and textiles, apparel, and merchandising (textile science, apparel design, and merchandising concentrations). Each curriculum provides the student with a concentrated professional sequence in an area of specialization, the necessary supporting courses in basic sciences and/or arts, and a broad general education.

All undergraduate programs are fully accredited by the Council for Professional Development of the American Association of Family and Consumer Sciences. In addition, specialized accreditation is offered by the American Dietetic Association.

Graduates are prepared to pursue professional careers in such areas as dietetics, medicine, public health, human services, cooperative extension service, business, education, research, retailing, apparel and textile industries, and international service. Human ecology programs, research, and service focus on the family as a system and the interaction of families and individuals in their near and global environments.

CURRICULUM IN CHILD AND FAMILY STUDIES

TOTAL SEM. HRS. • 124

Course work provides students with the background needed to subsequently pursue exciting and challenging careers in working with families, children, or consumer-related agencies. Employers include cooperative extension; non-profit and private agencies; faith-based organizations; consumer and business agencies and organizations; and federal, state, and local government. Many students pursue a graduate degree in Child and Family Studies or in closely related fields such as social work, counseling, and marriage and family therapy.

The Child and Family Studies undergraduate curriculum is unique from most social sciences programs in that it provides extensive classroom and field preparation for students who plan to enter the workforce upon receiving their BS degree. A practicum experience during the junior year allows students to gain field experience at an agency of their choosing. Field experience is expanded during the senior year to include a more intensive semester-long field internship at another student-selected agency, thereby offering students entree into the field of interest to them and providing them with post-graduation employment possibilities. Graduates with a concentration in Human Services Management are eligible to apply to the National Council on Family Relations for the provisional Certified Family Life Educator (CFLE) credential.

**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.

Courses marked with + are a requirement for the human services management concentration.

Courses marked with ++ are a requirement for the early childhood administration and leadership concentration.

FRESHMAN YEAR	SEM. HRS.
English 1001 or 1004.	3
Human Ecology 1000.	3
Mathematics 1021.	3
Biological Sciences 1001.	3
General education natural sciences courses	6
General education art course.	3
General education humanities course.	3
Area of concentration course.	3
Elective or area of concentration course* ..	3
	30

SOPHOMORE YEAR	SEM. HRS.
Economics 2030.	3
General education humanities course.	3
Communication Studies, 2040, 2060, 2063, 2862 or 2010*	3
English 2000.	3
Experimental Statistics 2201.	4
Human Ecology 2050 and 2065.	6
Psychology 2004, 2040 or 2000*	3
Sociology 2001.	3
Political Science 2051 or 2070.	3
	31

JUNIOR YEAR	SEM. HRS.
Human Ecology 3055.	4
Human Ecology 3060 and 3067.	7
Area of concentration courses.	9+ -15++
Electives.	12 - 6**
	32

SENIOR YEAR	SEM. HRS.
Human Ecology 3090 and 4064.	5
Human Ecology 4067.	8
Area of concentration courses.	15
Elective.	3
	31

Areas of Concentration

◆ Human Services Management

Required Courses (27 hrs.): ISDS 1100 or EXST 2000; HUEC 3065, 4051, 4052, 4065; PSYC 4072; SOCL 4461 or 4511 or 4701 or PSYC 4035; SOCL 3601 or SW 3002 or 3003; KIN 2600

◆ Early Childhood Administration and Leadership

Required Courses (36 hrs.): HRE 2723, 3071, 3171, 3723; HUEC 2083, 3056, 3057, 3065, 4060; and select three courses from: EDCI 2700, HRE 3271, 3571, 4603, 4705, 4723, 4804, HUEC 4052, 4065

CURRICULUM IN NUTRITIONAL SCIENCES

The nutritional sciences curriculum prepares students for careers in the health professions specifically in dietetics, medicine, or related fields. The dietetics concentration is currently accredited as a Didactic Program in Dietetics (DPD) by the Commission on Accreditation for Dietetics Education (CADE) of the American Dietetics Association (ADA), a specialized accrediting body recognized by the U.S. Department of Education and the Council for Higher Education Accreditation (CHEA). Students successfully completing this program will receive a verification statement that allows them to apply for a CADE accredited dietetic internship. This internship is required before students are eligible to sit for the registry examination to become a registered dietitian. 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. The nutrition science/pre-medical concentration provides students with a strong grounding in nutrition science while meeting the course work requirements for students planning to apply to medical, dental, or graduate school. Since nutrition plays a role in many chronic and acute disease processes, understanding of the role of nutrients in the body provides premedical students with a strong basis for building their medical careers.

Requirements for Graduation

Students must earn a grade of “C” or better in all required HUEC courses, as well as BIOL 2160 and 2083 (dietetics concentration) or BIOL 4087 and 4160 (nutritional science/premedical concentration).

TOTAL SEM. HRS. • 128

FRESHMAN YEAR	SEM. HRS.
Biological Sciences 1201.....	3
Chemistry 1201, 1202.....	6
English 1001.....	3
Human Ecology 1000, 2010.....	6
Mathematics 1431 ¹ or 1550.....	3-5
General education humanities course.....	3
Area of concentration courses.....	5-7
Electives.....	5-1
	—
	34
SOPHOMORE YEAR	SEM. HRS.
Communication studies 2060 or 2010.....	3
English 2000.....	3
Experimental Statistics 2201.....	4
Human Ecology 2110, 2019.....	6
General education social science course ²	3
Area of concentration requirements.....	13-12
Electives.....	0-1
	—
	32

JUNIOR YEAR	SEM. HRS.
Human Ecology 3010, 3012, 3116.....	9
General education social science course ³	3
Three hours chosen from 2000-level and above general education English courses or HNRS 2002, 2004, 3001, 3003.....	3
Area of concentration courses.....	14-12
Electives.....	2-4
	—
	31
SENIOR YEAR	SEM. HRS.
Human Ecology 4010, 4011, 4013, 4014, 4017, 4021, 4110.....	17
Area of concentration requirements.....	3
General education arts course.....	3
Electives.....	8
	—
	31

¹Dietetics students may elect either MATH 1431 or 1550; nutritional/premed majors must take MATH 1550.
²Dietetics students must elect to take PSYC 2000; nutritional/premed majors may take any general education social science elective.
³Dietetics students must elect to take ECON 2030 or AGECE 2003. Nutrition/premed majors may take any general education social science elective.

Areas of Concentration

◆ Dietetics

Required Courses (35 hrs.): ACCT 2000; BIOL 1011, 1012, 2083, 2160; CHEM 2060; HUEC 1021, 2014, 3019, 3021, 4016, 4023; MGT 3200

◆ Nutritional Science/Premedical

Required Courses (34 hrs.): BIOL 1202, 1208, 1209, 2153, 4087, 4160; CHEM 1212, 2261, 2262, 2364; PHYS 2001, 2108, 2002, 2109

CURRICULUM IN TEXTILES, APPAREL, AND MERCHANDISING

TOTAL SEM. HRS. • 120

To prepare students for future 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 the design, development, and marketing of textile and apparel products and are encouraged to develop a broad-based problem-solving perspective through synthesis of concepts, course work, 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 manufacturers, retailers, testing laboratories, government agencies, media firms, or they may open their own businesses.

FRESHMAN YEAR	SEM. HRS.
Human Ecology 1000.....	3
English 1001.....	3
Mathematics 1021.....	3
General education social sciences course.....	3
Human Ecology 2032.....	4
General education arts course.....	3
Mathematics 1022*, or 1431, or EXST 2201.....	3-4
General education physical or life science course sequence or CHEM 1201*, 1202*.....	6
General education natural sciences in area other than previously selected (both physical and life sciences must be taken).....	3
	—
	31
SOPHOMORE YEAR	SEM. HRS.
Accounting 2000 or 2001.....	3
Economics 2030.....	3
English 2000.....	3
Human Ecology 2040, 2041.....	4
Human Ecology 2045.....	3
General education humanities course.....	3
Area of concentration courses.....	10
	—
	29

JUNIOR YEAR	SEM. HRS.
Communication Studies 2060.....	3
General education humanities course.....	3
Area of concentration courses.....	12
Human Ecology 3032, 3045.....	6
Management 3200.....	3
Marketing 3401.....	3
	—
	30

SENIOR YEAR	SEM. HRS.
Area of concentration courses.....	2-6
Human Ecology 4034.....	3
Human Ecology 4044.....	3
Human Ecology 4071, 4072.....	6
Approved elective—HUEC 3030 or 4041 or 4043.....	3
Electives.....	13-9
	—
	30

* Textile Science students must select MATH 1022, CHEM 1201 and 1202.

Areas of Concentration

◆ Apparel Design (25 hrs.)

Required Courses—HUEC 2037, 3037, 3230, 3232, 4037, 4045, 4047 or 4070

◆ Merchandising (24 hrs.)

Required Courses—HUEC 3042, 3043, 4046, 4047, 4070; MGT 3320 or PSYC 3050; MC 2525 or MKT 4443

◆ Textile Science (28 hrs.)

Required Courses—EXST 2201; MATH 1550, 1552; CHEM 1212, 2001, 2002, 2261; PHYS 2001 or 2101; HUEC 4047

OTHER PROGRAMS**Early Childhood Education: PK-3 Teacher Certification**

The College of Education in collaboration with the School of Human Ecology offers a degree program in early childhood education: PK-3 teacher certification. Students earn a bachelor of science degree from the College of Education. Students must be admitted to the College of Education and follow the admission and degree requirements established by the college.

CURRICULUM IN EARLY CHILDHOOD EDUCATION: PK-3 TEACHER CERTIFICATION

TOTAL SEM. HRS. • 125-127

FRESHMAN YEAR	SEM. HRS.
Biological Sciences 1001.....	3
EDCI 1000.....	3
English 1001 or 1004.....	3
Geography 1001 or 1003.....	3
Geology 1001.....	3
Human Ecology 1000.....	3
Mathematics 1021 or 1023 or 1029 and 1100.....	6-8
Select 3 hours from ART 1001 or 1011 or 1440 or 2470 or Music 1751 or 1752 or 1755 or 1799 or 2000.....	3
Select 3 hours from Biological Sciences 1002 or Geology 1003.....	3
Political Science.....	3
	—
	33-35
SOPHOMORE YEAR	SEM. HRS.
English 2000.....	3
EDCI 2030, 2081, 2700.....	7
ELRC 2507.....	3
Six hours chosen from English courses on the general education humanities list.....	6
History 2055 or 2057.....	3
Human Ecology 2065, 2083.....	6
Mathematics 1201 and 1202.....	6
	—
	34
JUNIOR YEAR	SEM. HRS.
EDCI 3000.....	3
Human Ecology 3055, 3056.....	7
PROFESSIONAL PRACTICE	
BLOCK I: PK/K Human Ecology 3381, 3382, 3383.....	9
PROFESSIONAL PRACTICE	
BLOCK II: Grades 1-3 EDCI 3481, 3482, 3483.....	9
	—
	28
SENIOR YEAR	SEM. HRS.
PROFESSIONAL PRACTICE	
BLOCK III: PK/K Human Ecology 4381, 4382.....	15
PROFESSIONAL PRACTICE	
BLOCK IV: Grades 1-3 EDCI 4481, 4482.....	15
	—
	30

SCHOOL OF HUMAN RESOURCE EDUCATION & WORKFORCE DEVELOPMENT

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PROFESSORS • Bates, Burnett, Holton, Kotrlík, Redmann, Richardson
ASSOCIATE PROFESSORS • Johnson, Naquin
ASSISTANT PROFESSORS • Friedel, Hatala, Machtmes

CURRICULUM COORDINATOR • Johnson,
Associate Professor
OFFICE • 142 Old Forestry Building
TELEPHONE • 225-578-2464

CURRICULUM:

- Human Resource Education

The curriculum in human resource education is offered with areas of concentration in adult, extension, and international education; agricultural education; business education; career development; home economics education; industrial education; and human resource leadership and development. Master's and doctoral programs also are available. For additional information, see the Graduate Bulletin or contact the School of Human Resource Education & Workforce Development.

The State Board for Career and Technical Education has designated LSU as a teacher education center for the preparation of vocational teachers, making LSU eligible for Federal funds under the National Vocational Education Acts.

The School of Human Resource Education & Workforce Development is accredited by the National Council for Accreditation of Teacher Education and is a member of the University Council for Workforce and Human Resource Education, a national consortium of leading research universities.

ADMISSION TO THE SCHOOL

General Students • Students are eligible for admission to the school in accordance with admission and retention requirements prescribed by the College of Agriculture.

Students Seeking Teacher Certification • The teacher education program in career and technical education is administered jointly by the Colleges of Agriculture and Education. Students are admitted to programs leading to certification in adult education, agricultural education, business education, home economics education, industrial education, and vocational trade and industrial education according to the following:

- Students from other LSU senior colleges who have completed a minimum of 24 semester hours with a 2.20 grade point average on all work taken are considered for provisional admission to the vocational teacher education program. For regular admission, students must have a 2.50 cumulative grade point average and

- appropriate scores on the PRAXIS Examinations. Regular admission is required prior to enrollment in any 4000-level vocational education course.
- Transfer students from accredited colleges and universities who have met the entrance requirements of the University, who are eligible for admission to a senior college, and who meet the requirements listed above will be considered for admission to the teacher education program.
- Students on University scholastic and attendance probation will not be admitted to a teacher education program.

REQUIREMENTS FOR TEACHER CERTIFICATION

- Regular admission into a vocational teacher education program
- Attainment of senior standing in the college with an overall average of 2.50 on all work attempted at LSU, with no grade lower than "C" in professional education courses and in courses required in the teaching field, regardless of institution(s) attended
- Proficiency in English
- Completion of all methods courses

Students also may complete standard certification requirements in adult education. In addition, students may complete course work appropriate for the state alternative certification program.

Students interested in any program leading to teacher certification should contact the School of Human Resource Education & Workforce Development for application information, deadlines, and specific details about each program. Students interested in a teacher certification program other than those included here should contact the College of Education.

Public Management Program

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FAX • 225-578-6473

The *Public Management Program* (PMP) serves as the research-to-practice affiliate for the Human Resource Education (HRE) program within the School of Human Resource Education and Workforce Development. Incorporating research-based theory and current best practices, this unit offers a comprehensive array of human resource development activities to the public sector on a state, national, and international level. Specific activities include: training program design and delivery; strategic planning services; performance improvement on an individual, work group, and organizational level; process improvement; performance evaluation; adult literacy program development and delivery; curriculum design; program evaluation; organizational development strategies; workplace literacy program development and delivery; career development strategies; succession planning activities; and competency model development and implementation. PMP offers seminars, consultation services, and in-service training

programs through traditional classroom instruction as well as state of the art technology-based collaborative learning methodologies. The unit also develops and publishes research quality documents (both internally and through peer review systems) on various governmental and organizational issues. These services are provided by Public Management staff and University professors.

This unit is designated as the sponsoring agency for the *Comprehensive Public Training Program* (CPTP), a training and educational program authorized by the 1979 Louisiana Legislature. CPTP is designed to increase the skill and knowledge of state employees and non-elected officials. The *Certified Public Manager Program* (CPM), a nationally recognized and accredited certification program, is open to persons holding a management position within state government or nominated by the supervisors for promotion to such a position. The CPM curriculum includes 300 instructional hours in management and approved elective courses. On completion of the program, participants are awarded the Certified Public Manager (CPM) designation.

CURRICULUM IN HUMAN RESOURCE EDUCATION

Students completing this curriculum are prepared for a wide range of employment options including adult, extension, and continuing education; training and development in business and industry; human resource development and teacher certification at the secondary level.

The curriculum offers the student an opportunity to select either of two paths:

- General Student Path (noncertification)
- Teacher Certification Path

Students following either path will develop a 50-hour technical core in consultation with a faculty advisor.

Students interested in the study of training and development/human resource development should apply for the general student path. A special program of courses is available to prepare students for training and development careers in business, industry, and government. Students graduating from this program typically pursue careers in training and development, human resource development, training administration and consulting, classroom instruction, management development, career development, and technical training. While sharing some courses with the adult education emphasis, this program emphasizes the application of education methodologies in the workplace and the unique needs of business, industry, and government.

This path includes study in principles of adult education, principles of training and development, instructional design methodologies, training delivery, administration of training programs, educational psychology, and workplace learning. Emphasis is placed on developing training professionals who have a variety of methodologies and skills to be able to respond to the diverse needs of the modern workplace. Students are also expected to develop a content specialization outside the training core as part of their program of study. The path includes sufficient flexibility

for students to tailor the program to fit their career objectives. Students interested in this area should contact the school prior to admission.

The Louisiana teacher certification path prepares a student for certification in one of the previously mentioned areas of concentration. Although most of these graduates enter the teaching profession, experience has demonstrated that people who hold a state teaching certificate find employment in a wide variety of other related professions.

TOTAL SEM. HRS. • 135

¹Required for Teacher Certification
²Required for Human Resource and Leadership Development and Adult, Extension, International Education concentration

FRESHMAN YEAR	SEM. HRS.
English 1000/1001, 1002.....	6
Mathematics 1021 and 1431 ² or any general education analytical reasoning course.....	6
General education natural sciences sequence.....	6
Technical core courses.....	12
Electives or Kinesiology elective ¹	3
	—
	33

SOPHOMORE YEAR	SEM. HRS.
HRE 2001.....	3
General education arts course.....	3
General education humanities course, English ¹	3
General education natural sciences course.....	3
Experimental Statistics 2000 or approved computer related course.....	3
Technical core courses.....	8
Electives or Psychology 2060 ¹ and 2078 ¹ , History 2055/2057 ¹ , Kinesiology 2601 ¹ or HRE 3071 ² and EXST 2201 ² or SOCL 2201 ² and elective ²	10
	—
	33

JUNIOR YEAR	SEM. HRS.
HRE 3201 or 3271 ²	3
Economics 2030.....	3
General education humanities course, English ¹	3
HRE 4601 or 4603 ²	3
Technical core courses.....	18
Electives, Curriculum & Instruction 3136 ¹ ; natural sciences course ¹	6
	—
	36

SENIOR YEAR	SEM. HRS.
General education social sciences course or INTL 2001 ²	3
General education humanities communication studies course or CMST 2010 or 2060 ²	3
HRE 4809 or 4200 ¹ or 4025 ²	3
HRE 4301.....	3
Technical core courses and HRE 4102 ¹	12
HRE 4801 ¹ , 4802 ¹ , and 4803 ¹ or HRE 4804 ²	9
	—
	33

Areas of Concentration

◆ **Adult, Extension, and International Education**

Students must complete the requirements for the human resource education curriculum as shown in the catalog. For the 50 hours of technical courses required in that curriculum, students must complete the following courses: MGT 4620; HRE 3171; HRE 3571; PSYC 4032; HRE 4571; HRE 4805 (1 hr.); 3 hours from CMST 2010, 2060, 2061, 2064; 12 hour block of approved adult education specialization courses; choose either a second 12 hour block of approved specialization courses or 12 hours from a list of electives approved by the faculty; and seven hours of general electives.

◆ **Agricultural Education**

This concentration prepares students for teaching agricultural education in secondary schools, for working in agricultural business, and for serving as county extension agents. Course work is provided in various areas of agriculture, including plant and animal sciences and agricultural economics.

Professional education is offered through courses in methods and techniques for training youth and adults.

Students complete a 50-hour technical core. Using an approved list of technical core courses, students develop a plan of study in consultation with a faculty advisor.

Students who anticipate entering the teacher certification program should inform the faculty advisor at the time the undergraduate program of study is being developed.

◆ **Business Education**

The business education concentration prepares students to become professionals in supervisory, management, and support personnel positions in modern office environments. Knowledge and skills are acquired in general office systems, information processing, computing, and communications. In addition, skills such as problem solving, decision making, and human relations are emphasized.

Career opportunities may be found in business, industry, education, and governmental agencies. Students complete a 50-hour technical core in business education, which may include course work in keyboarding, accounting, communications, management, marketing, finance, economics, word processing, and data processing.

Using an approved list of technical core courses, students develop an individualized degree plan in consultation with a business education advisor. Students are encouraged to enroll in courses for certification in computer literacy (nine hours) and cooperative office education (six hours), plus a minimum of 1,500 hours of work experience in the business field).

Teaching minors in limited business education subjects also are offered. Business education advisors should be consulted for details.

◆ Career Development

Technical Core Courses—50 hours:
19 hours chosen from HRE 2070, 3602, 4025, 4301, 4704, 4705, 4849; 12 hours which must include three hours from economics, three hours from management, and six hours from psychology/sociology chosen from ECON 2035, 4020, 4140, 4210, 4220, 4230; MGT 3200, 3320, 3500, 4322, 4620; PSYC 2000, 3050; SOCL 2001, 2351, 4331, 4511, 4521; 19 hours chosen from courses above or from ELRC 4360, 4365, 4600, 4601; GEOG 1001, 1003, 2062; HUEC 4050; CMST 2010; SW 3008, 4005

The focus in career development is on goals of individuals and organizations and how each effectively meets the needs of the other. Through career planning, management, and development, the individual is given direction and purpose while present and future needs of the organization are also met.

Career development specialists help assess personal competencies and goals; identify, plan, and implement career actions; give counsel concerning the appropriate preparation for a given occupation; and explore career opportunities.

Students complete a block of 50 technical hours based on their specific career goals, and an internship provides practical work experience in an organization.

◆ Home Economics Education

The family and consumer science education concentration is designed to prepare individuals for employment opportunities in formal and informal educational institutions or in related educational pursuits in business, industry, the Cooperative Extension Service, and governmental agencies. Home Economics education includes:

- Broad-based studies of topics including textiles and apparel; human food and nutrition; family relationships; child development; housing equipment and furnishings; resource management and consumer economics.
- Professional education with early and continuing field experiences in areas of educational and adolescent psychology; presentation skills; instructional techniques; management of the learning environment; principles of vocational education; and a professional internship.

Louisiana teacher certification is granted in one or both of the following areas: vocational home economics, focused on helping people improve the quality of life; and occupational home economics, focused on developing skills and knowledge for employment in service areas related to food, child care, housing and design, and institutional management. Certification in occupational home economics requires work experience and a specific program of study. An ancillary certification is available for those holding related degrees. Students who anticipate applying for entry into teacher certification should inform the faculty advisor so that appropriate technical requirements can be included in the degree plan.

A degree plan consisting of a 50-hour core will be developed from an approved list

of technical courses related to home economics.

◆ Human Resource and Leadership Development

Students must complete the requirements for the human resource education curriculum as shown in the catalog. For the 50 hours of technical courses required in that curriculum, students must complete the following courses: MGT 4620; HRE 3171; HRE 3571; PSYC 4032; HRE 4571; HRE 4805 (1 hr.); 3 hours from CMST 2010, 2060, 2061, 2064; 12-hour block of approved human resource and leadership development courses; choose either a second 12-hour block of approved specialization courses *or* 12 hrs from a list of electives approved by the faculty; and seven hours of general electives.

◆ Technology Education

The concentration in technology education provides students with the training, supervision, and administrative development needed for service in industry and education; provides professional preparation and certification for vocational-technical teachers education teachers; and develops the skills of elementary and secondary school teachers in this area.

Students complete a 50-hour technical core. Using an approved list of technical core courses, students develop a plan of study in consultation with a faculty advisor.

Students who anticipate entering the teacher certification program should inform the faculty advisor at the time the undergraduate program of study is being developed.

SCHOOL OF PLANT, ENVIRONMENTAL, & SOIL SCIENCES

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ASSISTANT PROFESSORS • Barbee, Beasley, Knott, Strahan, Tubana, Weindorf
INSTRUCTORS • Dickson, Henderson, Kongchum, Materne, Mirabello, Souvestre
ADJUNCT FACULTY • Blanche, Bollich, Boquet, Bracy, Buckley, Chen, Clawson, Delaune, Dozier, Graham, Gravois, Hanna, Harrell, Legendre, Lindau, Mascagni, Miller, Moore, Morris, Morrison, Owings, Parish, Pzyner, Robbins, Sasser, Smith, Stewart, Villordon, Williams

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CURRICULA:

- Environmental Management Systems (Environmental Analysis and Risk Management; Policy Analysis; Resource Conservation)
- Plant and Soil Systems (Agricultural Pest Management; Crop Management; Soil Science; Environmental Horticulture; Horticultural Science; Landscape Management; 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 excellent 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. Students are prepared to be critical thinkers and life-long learners who can work effectively both independently and as members of a team. Many graduates continue their education in professional schools, such as medicine, veterinary medicine, and law. Others continue in graduate school, especially in biomedical, environmental, and engineering sciences. Entering a graduate program is an appropriate choice for those who seek to broaden their technical knowledge as well as strengthen their skills in written and oral communications, project management, statistics, or laboratory practice. A number of graduates also are professors at universities across the world and leaders in government and industry.

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 (e.g., DEQ, DHH, DNR, USEPA); environmental laws and regulations (e.g., CERCLA, SARA, CWA, CAA); 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.

CURRICULUM IN ENVIRONMENTAL MANAGEMENT SYSTEMS

TOTAL SEM. HRS. • 124

¹Environmental Analysis and Risk Management Concentration

FRESHMAN YEAR	SEM. HRS.
Biological Sciences 1201, 1208.	4
Chemistry 1201, 1202, 1212.	8
English 1001.	3
Environmental Management Systems 1011.	3
Mathematics 1021, 1022.	6
General education arts course.	3
General education humanities course.	3
General electives.	3
	33

SOPHOMORE YEAR	SEM. HRS.
Agronomy 2051.	4
Agricultural Economics 2003 or Economics 2030.	3
Biological sciences 1202, 1209.	4
Chemistry 2060 or 2261 ¹	3
English 2000.	3
Mathematics 1431.	3
Political Science 2051 or Sociology 2001.	3
Communication Studies 2060.	3
General electives.	3
	29

JUNIOR YEAR	SEM. HRS.
Experimental Statistics 2201.	4
Environmental Management Systems 3040, 3050.	7
Management 3200.	3
Physics 2001.	3
General education humanities course.	3
Area of concentration courses.	12
	32

SENIOR YEAR	SEM. HRS.
Environmental Management Systems 4020.	3
Agricultural Economics 3213.	3
Area of concentration courses.	18
Electives or ROTC.	6
	30

Areas of Concentration

◆ Environmental Analysis and Risk Management

Required Courses (30 hrs.)—AGRO 4055; BIOL 2051; CHEM 2001; EMS 4040; select one: OCS 4040 or 4165; select one: AGRO 4056, BIOL 4110 or 4090; and ten to eleven hours of approved electives from a list available from the School of Plant, Environmental, & Soil Sciences. Students may select no more than six hours of approved electives below the 3000 level.

◆ Policy Analysis

Required Courses (30 hrs.)—AGEC 3803; AGRO 4078; EMS 4040; ENVS 4101; 4261 or 4262 or 4264 or 4266; select one: ECON 4320 or AGEC 3503; OCS 4465; and nine hours of approved electives from a list available from the School of Plant, Environmental, & Soil Sciences

◆ Resource Conservation

Required Courses (30 hrs.)—AGEC 3503; AGRO 3040, 4052, 4055, and 4078; select one: AGRO 3000 or 4070 or HORT 2050 or 2061 or OCS 4308; GEOG 4047; and select one: OCS 4166 or 4465 or 4560; and four to five hours of approved electives from a list available from the School of Plant, Environmental, & Soil Sciences

PLANT AND SOIL SYSTEMS

Consolidation of curricula in Agronomy, Entomology, Horticulture, and Plant Pathology and Crop Physiology resulted in the curriculum in Plant and Soil Systems. All students in this curriculum take core courses that provide a basic knowledge required for specialization in one of eight areas: environmental horticulture; landscape management; turfgrass management; horticultural science; soil science; agricultural pest management; urban entomology and crop management. Each area is further individualized by the addition of approved and free electives.

Students interested in pursuing a minor in agronomy, agricultural pest management, or horticulture may take suggested courses for the minor as part of the approved and free electives. (See the section on College of Agriculture minors for details.)

Students pursuing agronomic interests can concentrate their studies in the areas of crop management, 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, as well as several hours in approved electives.

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 based on employment goals.

Four areas of horticultural concentration (environmental horticulture; landscape management; turfgrass management; and horticultural science) are designed to prepare students for various career opportunities using a cross-disciplinary studies approach. Prior to entering the program, students are encouraged to consult the curriculum coordinator for guidance in selecting courses.

Students selecting the environmental horticulture area of concentration will be prepared for careers in the production of fresh flowering and woody ornamentals, and vegetable and fruit crops. Course work is also offered in processing of fruit and vegetables. Students will become familiar with essential aspects of landscape and interiorscape installation and maintenance. Careers include interiorscape landscaping, wholesale production of horticulture plants, management of garden centers, landscape maintenance, 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.

Students selecting the landscape management area are prepared to construct landscape sites, as well as plant and maintain woody and herbaceous plants, turfgrass ornamental bulbs, and related crops. Course work in this area is more closely allied to landscape management and less so to production practices. Careers are centered on owning and operating landscape management companies.

Students selecting the turfgrass management area pursue careers as landscape designers and managers; sports field managers; golf course superintendents; or professionals employed by the urban agricultural products industry. In addition to the basic core courses in the curriculum, students study turf and ornamental management, pest identification and control, pesticide application techniques, landscape design, and small engine maintenance. Twelve hours of business electives provide additional experience in financial and personnel management.

Students selecting the horticultural science area of concentration are prepared to pursue graduate studies in horticulture and related sciences. Horticultural scientists 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. Horticulturists teach at every level, including high schools, community colleges and universities. Public service in horticultural extension includes advising home gardeners, professional horticulturists, and horticultural crop producers.

CURRICULUM IN PLANT AND SOIL SYSTEMS

TOTAL SEM. HRS. • 127-129

¹ For crop management and soil science areas of concentration

² For horticultural science; environmental horticulture, turfgrass management; and landscape management areas of concentration

³ For agricultural pest management area of concentration

⁴ For urban entomology area of concentration

⁵ For landscape management area of concentration

⁶ For horticultural science area of concentration

FRESHMAN YEAR	SEM. HRS.
Biological Sciences 1201, 1202, 1208	
1209 or 1001, 1002, 1005 ⁵	8
Chemistry 1201, 1202, 1212.....	8
English 1001, 2000.....	6
Mathematics 1021.....	3
Mathematics 1022 ² or Experimental Statistics 2201 ^{1,3,4}	3-4
General education arts course.....	3
General education social sciences course.....	3
General education humanities course.....	3
	34-35

SOPHOMORE YEAR	SEM. HRS.
Agronomy 2051.....	4
Chemistry 2060 or 2261.....	3
English 2000.....	3
Agricultural Economics 2003 or Economics 2030.....	3
Communication Studies 2060.....	3
General education humanities course.....	3
Area of concentration courses.....	12-13
Approved electives.....	3-2
	—
	34

JUNIOR YEAR	SEM. HRS.
Biological Sciences/Plant Health 3060 ⁶ or Horticulture 2860.....	3-4
Agronomy 3010 or 3090 ¹ or Horticulture 3000 or 3010 ² or Plant Health/Entomology 3000 ^{3,4}	3
Plant Health 4000.....	3
Area of concentration courses.....	9-12
Approved electives.....	9-5
Electives or ROTC.....	3
	—
	30

SENIOR YEAR	SEM. HRS.
Agronomy 4052 ^{1,2,3} or Entomology 4001 ⁴ ..	4-3
Area of concentration courses.....	10-9
Approved electives.....	12-15
Electives or ROTC.....	3
	—
	29-30

Areas of Concentration

A list of approved electives is available in the School of Plant, Environmental, & Soil Sciences.

◆ Crop Management (29-30 hrs.)

Agronomy 1001; Agronomy 3000; Agronomy 3011, 3012, 3013 (select two); Agronomy 3040, 4070, 4080; Biological Sciences 1011 or 2051 or 2083 or 4087; 2153; Entomology 4006; Plant Health 4001

◆ Environmental Horticulture (32 hrs.)

Entomology 2001; Horticulture 2122, 2124, 2125, 2050, 2061, 2086, 3015, 4020, 4071; Agronomy 4070

◆ Horticultural Science (33 hrs.)

Dairy Science 2072; Biological Sciences 2083; Entomology 2001; Experimental Statistics 2201; Horticulture 2050, 2061, 4012, 4020, 4096

◆ Landscape Management (35 hrs.)

Entomology 2001; Horticulture 2020, 2022, 2025, 2050, 2061, 2086, 2122, 2124, 2125, 2130, 3015, 3040; Agronomy 4070

◆ Soil Science (30-31 hrs.)

Agronomy 4055, 4056, 4058; Biological Sciences 1011 or 2051; Chemistry 2001, 2002; Geology 1001, 1601; Mathematics 1022; Physics 2001, 2108

◆ Turfgrass Management (32 hrs.)

Entomology 2001, 4012; Horticulture 2050, 2061, 2086, 2124, 2125, 2130, 3015, 4090; Agronomy 4070

SCHOOL OF RENEWABLE NATURAL RESOURCES

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ASSOCIATE PROFESSORS • Chamberlain, de Hoop, Nyman, Rohwer, Stouffer, Thomas, Xu

ASSISTANT PROFESSORS • Dozier, Keim
ADJUNCT FACULTY • Afton, Barrow, Blazier, Dunn, Goyer, Hooper-Bui, Hse, Jenkins, King, LaPeyre, Lian, Lutz, Ouchley, Pace, Reams, Reed, Siegel, Singh, Smith, Supan, Sword

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CURRICULA:

- Forestry (Forest Management)
- Natural Resource Ecology and 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 of renewable resources, protect biodiversity, and promote conservation of diverse ecosystems. Two undergraduate curricula are available that provide students with professional education in forestry or in natural resource ecology and management.

The curriculum in forestry and the curriculum in natural resource ecology and management consist of a set of core courses taken by all students in the School of Renewable Natural Resources to assure the broad understanding of natural resource ecology, sustainability, policy, and management. The forestry curriculum and the natural resource ecology and management curriculum have a set of required courses specific to each degree program. There is considerable flexibility within each degree program because there are areas of concentration that target specialties, yet allow individual flexibility in course selection. Problem-based learning and multidisciplinary team activities are used to put students in "real-world" situations with present-day problems that will better prepare students for successful careers. Critical thinking skills are stressed in a broad-based curriculum. To assure the quality of graduates, all students in undergraduate programs in forestry or natural resource ecology and management must earn a grade of "C" or better in all required RNR courses.

Bachelor of Science in Forestry

The bachelor of science in forestry (BSF) is aimed at providing a broad education in renewable natural resources specifically related to forest ecosystems. The BSF is accredited by the Society of American Foresters (SAF). SAF is the accrediting body recognized by the Commission on Recognition of Postsecondary Accreditation as the accrediting agency for forestry in the U.S.

The BSF degree program is flexible and allows students, in consultation with faculty, to select an area of concentration closely associated with their career goals in renewable natural resources. The two areas of concentration include forest resource management, and ecological restoration.

The forest resource management area of concentration is intended for students primarily interested in managing forests as a sustainable natural resource. The area of concentration 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 and private entities in forest resource management.

The ecological restoration area of concentration provides the foundation for

students planning a career in environmental and ecological consulting, ecological restoration, or remediation work.

Development mitigation is on the rise, as is the desire to restore systems disturbed and disrupted by anthropogenic and natural causes. Knowledge of plant and animal taxonomy, geographic information systems, and wetlands delineation are currently in demand by environmental consulting/engineering firms.

Bachelor of Science in Natural Resource Ecology and Management

This degree program strives to teach students about the ecology and natural history of plant and animal populations and communities to enable enhanced management and conservation of biotic resources. Students get broad-based training in identification, natural history, population ecology, conservation biology, and policy 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 positions. Students in natural resource ecology and management tailor their course work to their career goals by choosing one of seven areas of concentration: conservation biology, fisheries and aquaculture, natural resource conservation, wetland science, wildlife ecology, wildlife law enforcement, and preveterinary-wildlife.

Job opportunities for graduates of the natural resource ecology and management curriculum are available in state and federal agencies, non-governmental conservation organizations, private consulting firms, and with industry. 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 or the American Fisheries Society.

The conservation biology area of concentration is designed to educate students concerning ways to protect biodiversity. This includes a broad base of training in ecology, taxonomy, the genetics of small populations, human dimension of resource management, and the principles of population biology.

The fisheries and aquaculture area of concentration is designed for students interested in the ecology and management of aquatic resources in freshwater and marine ecosystems, as well as the cultivation of economically important species under controlled conditions. Students in this area take a diversity of courses in fish taxonomy, biology, and management, and can tailor their program of study to suit their interests with additional courses in breeding and genetic improvement, nutrition, aquacultural engineering, aquatic animal diseases, microbiology, water quality, biology, oceanography and coastal studies, and management of freshwater and marine habitats. With numerous opportunities to gain research experience, students in this concentration are well prepared for pursuing graduate studies, as well as a diversity of careers in aquatic resource management in private industry, state and federal agencies, consulting firms, and aquatic resource advocacy groups.

The area of concentration in natural

resource conservation is designed for students wishing to pursue a broader curriculum in renewable resource ecology and management, including courses from both aquatic and terrestrial systems. Many state and federal resource agencies are seeking people with a diverse educational background who are able to understand and work on complex environmental issues in multi-disciplinary teams that focus on land use, pollution, habitat loss, and biodiversity problems, all of which will continue to grow as human population numbers and urbanization increase.

The area of concentration in wetland science is designed for students who wish to specialize in wetlands, which are valued as wildlife and fish habitats, for maintaining water quality, and for other economic benefits. Students who concentrate in wetland science can anticipate working for private or governmental agencies that manage land, for governmental agencies that restore and/or regulate wetlands, or for businesses that delineate wetlands, plan and manage mitigation banks, or plan and construct restoration projects.

The wildlife ecology area of concentration is tailored to students interested in traditional management that focuses on wildlife populations, especially game animals and charismatic species of concern to the public. Students are exposed to the principles of population growth, theory and practice concerning population exploitation, habitat requirements and methods of management, and the way that public policy influences wildlife resources. Students from this area of concentration typically accept jobs with state and federal resource agencies, but often pursue advanced degrees.

The wildlife law enforcement area of concentration was recently created to meet the needs of students who want to enter into natural resources law enforcement with state or federal agencies. Students get a background in wildlife ecology and management, natural resources policy, as well as course work in political and social sciences. Students must still go through state or federal law enforcement academy before they can work in wildlife law enforcement.

The preveterinary-wildlife area of concentration is for students interested in applying to the LSU School of Veterinary Medicine, 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 such as whirling disease in trout and chronic wasting disease in elk continue to be problems for state and federal resource agencies, and zoos and wild 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.

Transportation for field trips is provided by the University but financed by the 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.

CURRICULUM IN FORESTRY
(FOREST MANAGEMENT)

TOTAL SEM. HRS. • 128

All students in the undergraduate curriculum in Forestry must earn a grade of "C" or better in all required RNR courses.

FRESHMAN YEAR	SEM. HRS.
Agriculture 1001*.....	1
Biological Sciences 1201, 1208 and 1202, 1209.....	8
Chemistry 1201, 1202, 1212.....	8
English 1001.....	3
Mathematics 1021.....	3
Renewable Natural Resources 1001 and 1002.....	4
General education arts course.....	3
Electives.....	2
	—
	32

SOPHOMORE YEAR	SEM. HRS.
Economics 2030 or Agricultural Economics 2003.....	3
Communication Studies 2060.....	3
English 2000.....	3
Experimental Statistics 2201.....	4
Mathematics 1431.....	3
Philosophy 2020.....	3
Renewable Natural Resources 2001 and 2101.....	6
Renewable Natural Resources 2039.....	3
General education social sciences.....	3
	—
	31

JUNIOR YEAR	SEM. HRS.
Renewable Natural Resources 2102, 3002, 4900, and 3103.....	11
Area of concentration courses.....	5-10
Approved electives.....	11-5
General education humanities course.....	3
Electives.....	3-4
	—
	33

SENIOR YEAR	SEM. HRS.
Renewable Natural Resources 4101.....	4
Area of concentration courses.....	11-18
Approved electives.....	12-6
Electives.....	5-4
	—
	32

*Students entering the program with 30 or more semester hours will take one additional hour of approved electives in place of AGRI 1001.

Areas of Concentration

A list of approved electives is available from the school.

◆ Ecological Restoration

Required Courses (18 hrs.)—AGRO 2051; RNR 3034, 3036, 3037, 3040, 3041, 3105, 3108, 4032

◆ Forest Resources Management

Required Courses (28 hrs.)—AGRO 2051; ENTM 4018; RNR 2043, 3034, 3036, 3037, 3040, 3041, 3105, 4036, 4038

CURRICULUM IN NATURAL
RESOURCE ECOLOGY AND
MANAGEMENT

TOTAL SEM. HRS. • 128

All students in the undergraduate curriculum in Natural Resource Ecology and Management must earn a grade of "C" or better in all required RNR courses.

FRESHMAN YEAR	SEM. HRS.
Agriculture 1001 ¹	1
Biological Sciences 1201 and 1202.....	6
Biological Sciences 1208 and 1209 or Chemistry 1212 ²	2
Chemistry 1201 and 1202.....	6
English 1001.....	3
Mathematics 1021.....	3
Renewable Natural Resources 1001 and 1002.....	4
General education arts course.....	3
Free electives.....	4
	—
	32

SOPHOMORE YEAR	SEM. HRS.
Communication Studies 2060.....	3
Chemistry 2060 ³ or 2261 ³ or Physics 2001.....	3
Economics 2030 or AGE 2003.....	3
English 2000.....	3
Experimental Statistics 2201.....	4
Mathematics 1022 ⁴ or 1431 or 1441.....	3
Renewable Natural Resources 2039.....	3
Renewable Natural Resources 2101.....	3
Philosophy 2020.....	3
Sociology 2001 or Political Science 2051.....	3
Area of concentration courses.....	1
	—
	32

JUNIOR YEAR	SEM. HRS.
Renewable Natural Resources 4103.....	3
Renewable Natural Resources 3002.....	3
Renewable Natural Resources 2001 or 4020 or Biological Sciences 4041 ⁵	3-4
General education humanities course.....	3
Agronomy 2051 ⁶ or Renewable Natural Resources 4025 or 4151.....	3-4
Renewable Natural Resources 2102.....	3
Area of concentration courses.....	8-6
Free electives.....	6
	—
	32

SENIOR YEAR	SEM. HRS.
Renewable Natural Resources 4101 and 4023 or 4040 and 4900.....	10
Area of concentration courses.....	15-20
Approved electives.....	5-0
Free electives.....	2
	—
	32

¹ Students entering the program with 30 or more semester hours will take one additional hour of approved electives in place of Agriculture 1001.

² Students in conservation biology, fisheries and aquaculture, and wildlife ecology areas of concentration must take BIOL 1208 and 1209.

³ Students in the fisheries and aquaculture or wetland science areas of concentration must take CHEM 2060 or 2261.

⁴ Calculus is required by many graduate schools.

⁵ Students in conservation biology, wetland sciences, and wildlife ecology areas of concentration must take RNR 2001.

⁶ Students in natural resource conservation and wetland science areas of concentration must take Agronomy 2051; students in fisheries and aquaculture area of concentration must take RNR 4025.

Areas of Concentration

◆ Conservation Biology

Required Courses (24-26 hrs.)—ENTM 4015; RNR 2031, 3018, and 4011; select two courses from the following—BIOL 4141, 4142, 4146, RNR 4037, 4145; select one course from RNR 4020 or BIOL 4041

◆ Fisheries and Aquaculture

Required Courses (24 hrs.)—BIOL 2051; RNR 2002, 4022, 4037, 4061, 4106, and 4145; select one from RNR 4023 or 4040

◆ Natural Resource Conservation

Required Courses (20-23 hrs.)—Select one course (3-4 hrs.) from the following: RNR 2002, 2031, 3002, or EMS 3040; Select two courses (6-8 hrs.) from the following: RNR 4011, 4022, 4023, 4033, 4036, 4038, 4040, 4051 or AGRO 4078; select two courses (8 hrs.) from the following: RNR 3018, 4145, BIOL 4041, 4052, 4141, 4142, 4146, or ENTM 4005; select one course (3 hrs.) from the following: AGE 3503, 3803, 4603, EMS 3050, ECON 4070, 4320, POLI 4011 or 4015.

◆ Wetland Science

Required Courses (21-22 hrs.)—OCS 4165, RNR 3108, 4020, 4033

Select 1 course (3 hrs.)—OCS 4164, 4308, 4465, or 4560

Select 1 pair of courses (6-7 hrs.)—either RNR 2031 and 4011; or RNR 2002 and 4023; or RNR 2002 and RNR 4040

◆ Wildlife Ecology

Required Courses (26 hrs.)—RNR 2031, 3005, 4011, 4051; ENGL 3002; ENTM 4015; select two courses (8 hrs.)—BIOL 4141, 4142, 4146, RNR 3018, 4145

◆ Wildlife Law Enforcement

Required courses (26 hrs.)—RNR 2031, 3018, 4011, 4051; POLI 2051; select two courses (6 hrs.) from the following—SOCL 3371, 3501, 4461, or 4471; select one course (3 hrs.) from the following—POLI 4015, 4020, 4021, 4022, or 4023

◆ Preveterinary Medicine

Required Courses—BIOL 2051, 2083, or CHEM 2262, 2364; RNR 2001; PHYS 2001, 2002; and RNR 2031, 4051. The required first-year veterinary medicine courses (39 hrs. used as approved electives) will fulfill the BS degree requirement.

Students preparing to enter the School of Veterinary Medicine are invited to enroll in the “three-plus-one” program managed jointly by the School of Renewable Resources and the School of Veterinary Medicine. In this program, students spend three years in the wildlife-veterinary medicine area of concentrated study, after which they are eligible to apply for admission to the School of Veterinary Medicine.

Students entering the LSU School of Veterinary Medicine after completion of the first three years of natural resource ecology and management curriculum (96 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 year of the professional curriculum).