College of Agriculture and Life Sciences

Administrative Officers
Vice Chancellor and Dean - Mark Hussey, Ph.D.
Executive Associate Dean - Alan Sams, Ph.D.
Associate Dean for Academic Operations - Kim E. Dooley, Ph.D.
Associate Dean for Graduate Programs and Faculty Development - David W. Reed, Ph.D.
Associate Dean for Student Development - Chris L. Skaggs, Ph.D.
Assistant Dean for Student Success - Danielle A. Harris, Ph.D.

General Statement
Ensuring an adequate and safe food supply for a rapidly expanding world population, succeeding in a global economy, and maintaining our planet’s natural resources and biodiversity are some of the challenges that are being met by graduates from the College of Agriculture and Life Sciences. Our students apply knowledge to solve problems as scientists, business leaders, engineers, educators, physicians, and other professionals. Enthusiastic and competitive students, a distinguished faculty, innovative teaching methods, outstanding advisors, and abundant experiential learning opportunities, including undergraduate research, result in the College of Agriculture and Life Sciences being considered one of the top colleges of agriculture in the country.

Our 32 majors and 21 minors provide students technical expertise and a broad education so that they can meet the challenges of feeding the world, improving health, protecting the environment, and enriching youth. Abilities of thinking creatively and critically, solving problems, making decisions and communicating effectively are developed, along with learning how to work with people of varied backgrounds. Relating well with others, leadership and followship are vital to success in the “real world.” Faculty members who teach undergraduate classes include many who are recognized nationally and internationally for research and other accomplishments in their disciplines. Interested undergraduates also have a chance to be a part of research projects themselves.

There are many opportunities for high impact courses and programs, such as undergraduate research, international experiences, internships and field study. The college has study abroad programs in the Americas, Asia, Europe, Oceania, Africa, and the Caribbean. All students are encouraged to participate in at least one of these high impact activities before graduation. Honors programs or stand-alone honors programs are available in many of the college’s academic departments. There are numerous student organizations that are sponsored by departments or the college such as the Freshman Leadership Program and the Agricultural and Life Sciences Student Council. These organizations promote interaction among students who share interests, and foster leadership skills.

The College of Agriculture and Life Sciences and its departments offer a variety of scholarships to students on a competitive basis. Many are reserved for incoming freshmen or transfer students. Additional information and application forms for college-level scholarships for current students can be obtained from the Scholarships and Financial Aid Office. Information about departmental scholarships can be obtained from the departments directly.

College of Agriculture and Life Sciences Baccalaureate Degree Programs
Each major can be planned to prepare students for graduate study or admission to professional schools in medicine, dentistry, veterinary medicine, other health professions and law. Students in programs, such as biochemistry, genetics and nutritional sciences, are highly recruited for medicine, nursing, and other health professions. Animal science and wildlife and fisheries sciences are among several excellent choices for students interested in veterinary medicine. Students with a background in natural resources, the agricultural industry, forensics, or life sciences can use that knowledge well if they choose to enter law school. An environmental lawyer with a degree in a natural resource area is better equipped to incorporate the science with the law.

Advising is provided for each student in the college through offices in the individual academic departments. Departmental faculty and professional advisors provide assistance on course selection and other academic issues and serve as mentors for career planning and admission to graduate or professional school. Advisors serve as professional consultants for students in the College with the objective of avoiding problems if possible and solving problems if needed.

Requirements for Graduation
Requirements for graduation are listed in the Texas A&M University Student Rules and this catalog. With the exception of general elective requirements, courses taken to satisfy degree requirements must be taken for letter grades.

International and Cultural Diversity Requirement
Texas A&M University requires its students to meet an International and Cultural Diversity requirement as part of the Graduation requirements. Meeting this requirement will require the careful selection of courses. The student is directed to the Requirements for a Baccalaureate Degree section of this catalog for detailed information regarding this requirement and also is encouraged to seek the advice of the student’s academic advisor.

Internships and Cooperative Education
Internships provide real-world experience in industries related to a student’s education and professional career preparation. Students return to campus with a broader perspective and more intense interest in their education. The experiences are so valuable that many students complete more than one internship. Most departments in the College offer academic credit for the satisfactory completion of an internship. In fact, an internship is required for graduation in some degree programs.

The Agricultural and Natural Resources Policy (ANRP) Internship Program places students from the College of Agriculture and Life Sciences in policy-based internships in Austin, TX, Washington, D.C. and Rome, Italy for a semester or summer. Selection for the program is based upon factors such as academic performance, leadership, and a student’s general interest in learning the policy process.

Cooperative education is a program of work and study that allows students to gain practical experience in their chosen field while pursuing a degree.
Students interested in information should consult with their academic advisor.

Graduate Study

All departments in the College of Agriculture and Life Sciences offer graduate degrees at the master’s and doctoral levels. Every department offers courses and programs online.

Students are encouraged to contact the department in which they wish to major to obtain information about graduate study. Information on admission, programs available, etc., can be found in the Texas A&M University Graduate and Professional Catalog.

Teacher Certification

Texas teacher certification in agricultural science is available through the Department of Agricultural Leadership, Education, and Communications. Certification is granted through the State Board of Educator Certification (SBEC) upon a student’s completion of the course of study administered by the department. The undergraduate major in agricultural science includes all coursework required for our recommending a student to SBEC for teacher certification. The requirements can be completed with any major in the College of Agriculture and Life Sciences. See an advisor in Agricultural Science, Department of Agricultural Leadership, Education, and Communications, for more information.

Majors

College of Agriculture and Life Sciences

• Bachelor of Science in Renewable Natural Resources

Department of Agricultural Economics

• Bachelor of Science in Agribusiness
• Bachelor of Science in Agricultural Economics, Finance and Real Estate Option
• Bachelor of Science in Agricultural Economics, Food Marketing Systems Option
• Bachelor of Science in Agricultural Economics, Policy and Economic Analysis Option
• Bachelor of Science in Agricultural Economics, Rural Entrepreneurship Option
• Bachelor of Science in Agricultural Economics and Master of Public Service and Administration, 5-Year Degree Program

Department of Agricultural Leadership, Education, and Communications

• Bachelor of Science in Agricultural Communications and Journalism
• Bachelor of Science in Agricultural Leadership and Development
• Bachelor of Science in Agricultural Science
• Bachelor of Science in University Studies, Leadership Studies Concentration

Department of Animal Science

• Bachelor of Science in Animal Science, Production/Industry Option
• Bachelor of Science in Animal Science, Science Option

Department of Biochemistry and Biophysics

• Bachelor of Science in Biochemistry
• Bachelor of Science in Genetics

Department of Biological and Agricultural Engineering

• Bachelor of Science in Agricultural Systems Management
• Bachelor of Science in Biological and Agricultural Engineering—offered in conjunction with the Dwight Look College of Engineering

Department of Ecosystem Science and Management

• Bachelor of Science in Ecological Restoration
• Bachelor of Science in Forestry
• Bachelor of Science in Rangeland Ecology and Management, Ranch Management Option
• Bachelor of Science in Rangeland Ecology and Management, Rangeland Resources Option
• Bachelor of Science in Renewable Natural Resources
• Bachelor of Science in Spatial Sciences

Department of Entomology

• Bachelor of Science in Entomology
• Bachelor of Science in Forensic and Investigative Sciences, Pre-Law Emphasis
• Bachelor of Science in Forensic and Investigative Sciences, Science Emphasis

Department of Horticultural Sciences

• Bachelor of Arts in Horticulture
• Bachelor of Science in Horticulture

Department of Nutrition and Food Science

• Bachelor of Science in Food Science and Technology, Food Science Option
• Bachelor of Science in Food Science and Technology, Industry Option
• Bachelor of Science in Nutrition, Didactic Program in Dietetics Track
• Bachelor of Science in Nutrition, General Nutrition Track
• Bachelor of Science in Nutrition, Molecular and Experimental Track

Department of Plant Pathology and Microbiology

• Bachelor of Science in Bioenvironmental Sciences
• Bachelor of Science in Environmental Studies
• Bachelor of Science in University Studies, Environmental Business Concentration

Department of Poultry Science

• Bachelor of Science in Poultry Science, Industry Emphasis
• Bachelor of Science in Poultry Science, Technical Emphasis
Department of Recreation, Park and Tourism Sciences
- Bachelor of Science in Community Development
- Bachelor of Science in Recreation, Park and Tourism Sciences, Community Recreation and Park Administration Certificate
- Bachelor of Science in Recreation, Park and Tourism Sciences, Parks and Conservation Certificate
- Bachelor of Science in Recreation, Park and Tourism Sciences, Tourism Management Certificate
- Bachelor of Science in Recreation, Park and Tourism Sciences, Youth Development Certificate
- Bachelor of Science in Renewable Natural Resources

Department of Soil and Crop Sciences
- Bachelor of Science in Plant and Environmental Soil Science, Crops Emphasis
- Bachelor of Science in Plant and Environmental Soil Science, Soil and Water Emphasis
- Bachelor of Science in Turfgrass Science

Department of Wildlife and Fisheries Sciences
- Bachelor of Science in Renewable Natural Resources
- Bachelor of Science in Wildlife and Fisheries Sciences, Aquatic Ecology and Conservation Option
- Bachelor of Science in Wildlife and Fisheries Sciences, Vertebrate Zoology Option
- Bachelor of Science in Wildlife and Fisheries Sciences, Wildlife Ecology and Conservation Option

Minors
Minors consist of a group of specified courses totaling between 15 and 18 credit hours. Students who are eligible to enroll in a minor should contact an advisor in the department offering the minor. Minors available in the college are listed.

Department of Agricultural Economics
- Agricultural Economics Minor
- Financial Planning Minor

Department of Agricultural Leadership, Education, and Communications
- Agricultural Communications and Journalism Minor
- International Agricultural Development Minor
- Leadership Minor

Department of Animal Science
- Animal Science Minor

Department of Biochemistry and Biophysics
- Biochemistry Minor
- Genetics Minor

Department of Biological and Agricultural Engineering
- Agricultural Systems Management Minor

Department of Ecosystem Science and Management
- Forestry Minor
- Rangeland Ecology and Management Minor
- Spatial Sciences Minor

Department of Entomology
- Entomology Minor

Department of Horticultural Sciences
- Horticulture Minor

Department of Plant Pathology and Microbiology
- Bioenvironmental Sciences Minor

Department of Poultry Science
- Poultry Science Minor

Department of Recreation, Park and Tourism Science
- Park and Natural Resource Management Minor
- Tourism Management Minor

Department of Soil and Crop Sciences
- Agronomy Minor
- Environmental Soil Science Minor

Department of Wildlife and Fisheries Sciences
- Wildlife and Fisheries Sciences Minor

Certificates
Certificate programs document expertise in an area beyond a major or minor. Information on requirements for certificate programs is available from the advisor of the department offering the certificate. Certificate programs available in the college are listed.

Department of Agricultural Economics
- International Trade and Agriculture Certificate

Department of Animal Science
- Equine Science Certificate
- Meat Science Certificate

Department of Ecosystem Science and Management
- Watershed Certificate

Department of Entomology
- Public Health Entomology Certificate
Department of Recreation, Park and Tourism Science
- Community Recreation and Park Administration Certificate
- Parks and Conservation Certificate
- Professional Event Manager Certificate
- Tourism and Hospitality Management Certificate
- Tourism Management Certificate
- Youth Development Certificate

Masters
College of Agriculture and Life Sciences
- Master of Natural Resources Development in Natural Resources Development
- Master of Science in Plant Breeding

Department of Agricultural Economics
- Master of Agriculture in Agricultural Economics
- Master of Science in Agricultural Economics

Department of Agricultural Leadership, Education, and Communications
- Master of Agriculture in Agricultural Development
- Master of Education in Agricultural Leadership, Education and Communication—offered in conjunction with the College of Education and Human Development
- Master of Science in Agricultural Leadership, Education and Communication—offered in conjunction with the College of Education and Human Development

Department of Animal Science
- Master of Science in Animal Breeding
- Master of Agriculture in Animal Science
- Master of Science in Animal Science
- Master of Equine Industry Management in Equine Industry Management
- Master of Science in Physiology of Reproduction

Department of Biochemistry and Biophysics
- Master of Science in Biochemistry

Department of Biological and Agricultural Engineering
- Master of Agriculture in Agricultural Systems Management
- Master of Science in Agricultural Systems Management
- Master of Engineering in Biological and Agricultural Engineering—offered in conjunction with the Dwight Look College of Engineering
- Master of Science in Biological and Agricultural Engineering—offered in conjunction with the Dwight Look College of Engineering

Department of Ecosystem Science and Management
- Master of Agriculture in Ecosystem Science and Management
- Master of Science in Ecosystem Science and Management
- Master of Natural Resources Development in Natural Resources Development

Department of Entomology
- Master of Science in Entomology

Department of Horticultural Sciences
- Master of Agriculture in Horticulture
- Master of Science in Horticulture
- Master of Science in Plant Breeding

Department of Nutrition and Food Science
- Master of Agriculture in Food Science and Technology
- Master of Science in Food Science and Technology
- Master of Science in Nutrition

Department of Plant Pathology and Microbiology
- Master of Science in Plant Pathology

Department of Poultry Science
- Master of Agriculture in Poultry Science
- Master of Science in Poultry Science

Department of Recreation, Park and Tourism Sciences
- Master of Natural Resources Development in Natural Resources Development
- Master of Science in Recreation, Park and Tourism Sciences
- Master of Recreation and Resources Development in Recreation and Resources Development

Department of Soil and Crop Sciences
- Master of Science in Agronomy
- Master of Science in Plant Breeding
- Master of Science in Soil Science

Department of Wildlife and Fisheries Sciences
- Master of Natural Resources Development in Natural Resources Development
- Master of Science in Wildlife and Fisheries Sciences
- Master of Wildlife Science in Wildlife Science

Doctoral
College of Agriculture and Life Sciences
- Doctor of Philosophy in Plant Breeding
Department of Agricultural Economics
- Doctor of Philosophy in Agricultural Economics

Department of Agricultural Leadership, Education, and Communications
- Doctor of Education in Agricultural Education—offered as a joint program with Texas Tech University when offered by Distance Education
- Doctor of Philosophy in Agricultural Leadership, Education and Communication—offered in conjunction with the College of Education and Human Development

Department of Animal Science
- Doctor of Philosophy in Animal Breeding
- Doctor of Philosophy in Animal Science
- Doctor of Philosophy in Physiology of Reproduction

Department of Biochemistry and Biophysics
- Doctor of Philosophy in Biochemistry

Department of Biological and Agricultural Engineering
- Doctor of Philosophy in Biological and Agricultural Engineering

Department of Ecosystem Science and Management
- Doctor of Philosophy in Ecosystem Science and Management

Department of Entomology
- Doctor of Philosophy in Entomology

Department of Horticultural Sciences
- Doctor of Philosophy in Horticulture—also offered as cooperative program with Texas A&M University - Kingsville
- Doctor of Philosophy in Plant Breeding

Department of Nutrition and Food Science
- Doctor of Philosophy in Food Science and Technology
- Doctor of Philosophy in Nutrition

Department of Plant Pathology and Microbiology
- Doctor of Philosophy in Plant Pathology

Department of Poultry Science
- Doctor of Philosophy in Poultry Science

Department of Recreation, Park and Tourism Sciences
- Doctor of Philosophy in Recreation, Park and Tourism Sciences

Department of Soil and Crop Sciences
- Doctor of Philosophy in Agronomy
- Doctor of Philosophy in Plant Breeding

Department of Wildlife and Fisheries Sciences
- Doctor of Philosophy in Wildlife and Fisheries Sciences