

# UNDERGRADUATE HANDBOOK

2023-2024

# Texas A&M University Department of Animal Science College of Agriculture and Life Science



# Freshman and Transfer Student Handbook 2023-2024

The information in this handbook is intended to complement the information in the 2023-2024 Undergraduate Catalog. In the case of any conflicts with the information presented in the Undergraduate Catalog, please notify your advisor of the discrepancy and always follow the rules and guidelines present in your catalog.

# Howdy!

Welcome to the Department of Animal Science at Texas A&M University! Texas A&M is an exciting and unique place to work and study. The Department of Animal Science is enthused about the many opportunities available to you that will help you excel throughout your academic career. You will find that the students here are first-class, and the faculty and staff are extremely friendly and they care about each student as individuals.

Texas A&M has an outstanding reputation across the nation and the world for its animal science department programs. This can be attributed to our exceptional students who have genuine interests in the sciences and solid academic backgrounds from high school courses.

Additionally, there are several different organizations on campus that you might choose to be involved with, such as:

- Clubs No matter what your interests are, there is a club on campus to fit you! This is a great way to meet other students who are interested in the same things you are. The opportunities are endless!
- Competitive Teams If livestock evaluation is something you
  might like, you should think about participating in one of our
  various competitive judging teams. By competing on these
  teams, you will acquire work ethic, public speaking capabilities,
  leadership development, and critical thinking skills.
- **Traditions** At Texas A&M, traditions serve to unite the student body toward common goals. The traditions at Texas A&M University are second to none, and shape the unique spirit that puts Texas A&M in a class by itself.

Department of

Animal Science

Animal science majors may choose from two curriculum options: science and production/industry:

- Students who plan to attend veterinary, medical, dental, pharmacy or graduate school are
  encouraged to select the **science option**. In addition to the core courses in animal science, this
  option includes approximately five semesters of chemistry and heavily emphasizes other areas
  such as biology, genetics, physiology and mathematics.
- Students seeking careers in animal production, agricultural extension work, or feed sales usually select the **animal production/industry option**. It includes courses in allied areas such as genetics, economics, management, physiology, accounting and finance. In addition, students with an interest in a specific species are encouraged to direct their general elective hours toward those courses offered in the animal science department.

From all of us in the Department of Animal Science, we are looking forward to working with you!

# Gig 'em Aggies!

### Department of Animal Science Administration



Dr. Andy Herring
Professor & Interim
Department Head
133 Kleberg
979-845-1543
andy.herring@ag.tamu.edu



**Dr. Kathrin Dunlap**Instructional Associate
Professor & Associate Head
for Academic Programs
133 Kleberg
979-845-2045
kathrin.dunlap@ag.tamu.edu



**Dr. Shawn Ramsey**Professor & Assistant Head
for Undergraduate Programs
116 Kleberg
979-845-6021
shawn.ramsey@ag.tamu.edu



**Dr. Ron Gill**Professor, Extension Livestock
Specialist & Associate Head
for Extension
979-845-3579
ron.gill@ag.tamu.edu



Donna Witt
Senior Administrative
Coordinator I
Animal Science
133D Kleberg
979-458-0122
donna.witt@ag.tamu.edu

#### Kleberg Advising Hub, Texas A&M University

Undergraduate advisors in the Kleberg Advising Hub are available to assist students with course scheduling, academic progress, internships and career opportunities. Please contact the Kleberg Advising Hub at klebergadvhub@ag.tamu.edu to schedule an appointment. If you are a current student, schedule an appointment via Navigate.



Scan the QR code to view a list of advisors!

Office: 109 and 114 Kleberg

Phone: 979-845-7616

E-mail: klebergadvhub@ag.tamu.edu

Advising Hours: 8:30 a.m. to 11:00 a.m. and 1:30 p.m. to 4:00 p.m., Monday - Friday

Appointments are required.

#### Kleberg Advising Hub, Texas A&M University

#### **Advising Syllabus, 2023-2024**

#### Mission Statement:

Our role is to educate and empower each student to reach his or her personal and professional goals in a timely manner. We promote the development of our student's self-sufficiency, integrity and professionalism to become responsible citizens and exemplary role models in the TAMU and global communities.

#### Objectives of Advising:

- 1. Understand degree program requirements and university policies
- 2. Understand the relationship between your chosen major and your career plans
- 3. Utilize the resources available to you on campus, such as Student Counseling Services, the Career Center, and Academic Success Center.
- 4. Explore extracurricular activities to enhance your education and overall college experience

#### Advisor and Advisee Responsibilities

ANSC advisors and advisees both play important roles in the advising process.

#### I will...

- Understand and effectively communicate curriculum, graduation requirements, and university and college policies and procedures
- Listen to your concerns and respect your individual values and choices
- Assist you in defining your academic, career, and personal goals, and assist you in creating an
  educational plan that is consistent with those goals
- Be available to answer your questions through scheduled meetings or email
- Provide you with information about educational opportunities outside of the classroom
- Work with you to assess your academic performance and areas of strength to ensure they are consistent with your plans
- Refer you to other campus offices as appropriate

#### I expect you to...

- Schedule and attend advising appointments approximately once per year
- Be involved in the advising process by being prepared to discuss your goals and educational plans during our meetings
- Be open and willing to consider advice from faculty, advisors, and other mentors
- Bring a list of questions to appointments and ask questions if you do not understand a topic we discuss during our meeting
- Review your preliminary degree audit each semester and track your progress towards completing your graduation requirements
- Read your TAMU email daily
- Become knowledgeable of campus policies, procedures, and resources
- Take primary and increasing responsibility for making your own decisions based on available information and advice

#### Policies & Procedures of Academic Advising

- ▶Your Advisor: It is not mandatory, but highly recommended that you schedule an appointment with your advisor at least once a year, but preferably each semester. Your advisor will discuss course options, address academic problems or concerns, make decisions about the upcoming semester, and explore major/minor options. If you find yourself on probation, it will be mandatory for you to meet with your advisor prior to registration for the upcoming semester.
- ▶ Scheduling: Appointments are scheduled via the Navigate Scheduling System (https://tamu.campus.eab.com/) or by calling the Kleberg Advising Hub office telephone number: 979-845-7616.
- ► Walk-Ins: Walk-In appointments are available during certain times; however, please be aware that Advisors may be committed to previously scheduled appointments and/or meetings. We will do our best to meet with you in a timely fashion.
- ▶ Cancellation of Appointments: We recognize situations arise that may create a need to reschedule or cancel your appointment. A two (2) hour prior-notification is requested. Reciprocal courtesy will be extended to students should Advisors need to cancel.
- ▶ No-Show Policy: This policy is not meant to be punitive, but to be fair and equitable to all students. During peak advising periods, appointment times are premium. If you do not notify the office two (2) hours in advance that you are unable to keep the appointment, your absence will be noted as a "no-show." After two no-shows, you will NOT be able to schedule an appointment until after the last TAMU registration entry time.
- ▶ Etiquette: Please arrive five (5) minutes early for your appointment. If you are going to be late for your appointment, please notify the office immediately. Whether you are waiting in the ANSC office or meeting with your Advisor, please turn off cell phone and text messaging devices.
- ► Communication Protocol: E-mail communication via a student's TAMU account is the official method of communication at Texas A&M University. Due to privacy regulations, your Advisor will communicate solely through the university assigned TAMU account. While some inquiries may be resolved through email correspondence, most situations benefit from scheduling a face-to-face appointment for further discussion. Also due to privacy issues, it is preferred that you do not bring a friend into your appointment. They may wait in the waiting area.

#### Advising Tools & Resources

- Animal Science (http://animalscience.tamu.edu)
- College of Agriculture & Life Sciences (http://aglifesciences.tamu.edu)
- Howdy (http://howdy.tamu.edu) (Degree Audits, Registration Status and Holds, Unofficial Transcript)
- Academic Calendar (http://admissions.tamu.edu/Registrar/General/Calendar.aspx)
- Course Catalog (institutional policies and procedures, major/minor requirements, course listings)
- Counseling and Psychological Services (http://caps.tamu.edu)
- Study Abroad (http://studyabroad.tamu.edu)
- Academic Success Center (http://us.tamu.edu)
- Academic Advisors (http://aglifesciences.tamu.edu/academic-advisors/)

COURSE		DESCRIPTION
ANSC	101	<b>Introductory Seminar for Animal Science.</b> 1 credit. Orientation to programs and opportunities in the Department of Animal Science, to create an awareness of campus resources for financial aid and tutoring, to develop goals for college career and to initiate planning for internship and job opportunities.
	107	<b>General Animal Science.</b> 3 credits. Scientific animal agriculture, selection, reproduction, nutrition management and marketing of beef cattle, swine, sheep, goats and horses; evaluation and processing of meat, wool, and mohair. Importance of livestock and meat industries.
	108	General Animal Science. 1 credit. Laboratory to accompany ANSC 107.
	111	<b>Animal Production Systems.</b> 3 credits. Transformative experiences related to beef cattle, dairy cattle, equine, sheep, swine, goats, companion animals, meats, food products and food safety; exposure to available animal science careers and potential areas of future/additional study.
	113	<b>Farm Animal Biosystems.</b> 2 credits. Information regarding the processes by which networks of cells are controlled and coordinated within the farm animal.
	117	<b>Texas Barbecue.</b> 1 credit. Survey, demonstration and participation in preparation techniques of Texas barbeque; comparison of regional and international barbecue methods.
	201	<b>Introductory Equine Care and Use.</b> 2 credits. Survey of basic equine care and use; breeds of horses and their use; care of equines including feeding, health care, housing and equipment.
	210	<b>Companion Animal Science.</b> (3-0). 3 credits. Types, care, physiology, common diseases and common treatments of companion animals (dogs, cats, exotic pets); careers including biomedical research; solution for problems such as behavior and overpopulation.
	211	<b>Equine Industry and Career Preparation.</b> 2 credits. Identify opportunities and skill sets required to pursue a career in the equine industry; development of resume, communication, professional etiquette and interview skills.
	215	<b>Intro to Livestock Evaluation.</b> (1-3) 2 credits. Live market animal appraisal in relation to carcass and composition; criteria for selection of breeding livestock; techniques for preparation and delivery of oral reasons.
	221	<b>Equine Handling and Safety.</b> (2-2) 3 credits. Working around horses safely and effectively; includes equine behavior, proper handling techniques, controlling movement of horses, health assessment and basic management.
	242	<b>Growth and Development of Livestock.</b> 3 credits. Evaluation of slaughter livestock as related to growth and development, production efficiency, carcass value; selection of breeding animals based on performance, production records, visual appearance; principles of growth biology; biotechnological tools used to manage growth and development.
	289	Special Topics in Selected topics in an identified area of animal science. May be repeated for credit.
	291	<b>Research.</b> 0 to 4 credits. Research conducted under the direction of faculty member in animal science. May be repeated 2 times for credit.
	302	<b>Basic Beef Cattle Production.</b> 3 credits. Fundamental concepts of beef management and production principles. Service course recommended for non-animal science majors.
	303	<b>Principles of Animal Nutrition.</b> 3 credits. Scientific approach to nutritional roles of water, carbohydrates, proteins, lipids, minerals, vitamins, and other dietary components; emphasis on the comparative aspects of gastrointestinal tracts and on digestion, absorption, and metabolism of nutrients.
	305	<b>Animal Breeding.</b> 3 credits. A systems approach to selection and mating of livestock; gene frequency, heritability, relationship, inbreeding, linebreeding, heterosis, crossbreeding, direct and correlated response to selection, and use of pedigree, family, progeny testing and indices for selection.
	307	<b>Meats.</b> 3 credits. Integrated studies of the meat animal processing sequence regarding the production of meat-type animals and the science and technology of their conversion to human food.
	309	<b>Applied Animal Record Keeping.</b> 3 credits. Keeping, analyzing and interpreting records to make fully-informed decisions on a day-to-day basis for production and management scenarios; practical application unique to animal science and meat processing.
	311	<b>Equine Behavior and Training.</b> 2 credits. Equine behavior and application of principles of psychology to training horses; systematic approaches to horse training emphasizing principles of learning; equipment and its use; stable management and preparation of horses for competition; separate laboratory sections for students with varying backgrounds.
	312	<b>Equestrian Technology.</b> 2 credits. Advanced scientific methods and techniques for execution of equine performances in hunter, dressage and stock horse events; anatomical, physiological, and psychological implications; preparation of horses and riders.
	314	<b>Wool Evaluation and Grading.</b> 2 credits. Evaluation of U.S.D.A. grades of wool and mohair; steps involved in processing raw wool into finished fabric; genetic and environmental factors affecting quality characteristics of wool and mohair; grading, evaluation, selection of fleeces for economic value; oral and written defense of judgments.

COURSE		DESCRIPTION
ANSC	315	<b>Livestock Judging.</b> 2 credits. Selection and evaluation of beef cattle, swine, sheep, and horses. Ability to present accurate, clear and concise oral and written reasons stressed.
	316	<b>Aptitude and Performance Appraisal of Horses.</b> 2 credits. Detailed evaluation of athletic performance of horses; influence of heredity, conformation, training and other environmental effects; use of performance and racing records and visual appraisal; industry trends; oral and written defense of judgments.
	317	<b>Meat Selection, Evaluation and Grading.</b> 2 credits. Selection and grading of carcasses and wholesale cuts of beef, pork, and lamb; principles of evaluation included in carcass contests and progeny testing.
	318	<b>Feeds and Feeding.</b> 3 credits. Scientific approaches associated with precision feeding and diet formulation to match nutrient availabilities of feedstuffs with requirements of various classes of livestock species; emphasis on cost-effective feeding strategies to optimize animal productivity, and end-product quality and safety, while mitigating environmental impacts and enhancing animal health and welfare.
	320	<b>Animal Nutrition and Feeding.</b> 3 credits. Nutritional functions of water, protein, carbohydrates, fats, minerals, and vitamins and their digestion, absorption, use and excretion; energy, protein and forage feedstuff characteristics and processing; nutritional requirements, ration formulation and feeding methods for farm animals; <b>general course for non-animal science majors</b> .
	325	<b>Advanced Livestock and Product Evaluation.</b> (1-3). 2 credits. Advanced evaluation of cattle, swine, sheep & equine; products produced or associated with each species; advanced oral or written defense of judgements associated with changing trends in these industries.
	326	<b>Food Bacteriology.</b> 3 credits. Microbiology of human foods and accessory substances; raw and processed foods; physical, chemical and biological phases of spoilage; standard industry techniques of inspection and control.
	333	<b>Reproduction in Farm Animals.</b> 2 credits. Physiological principles of reproductive processes in cattle, sheep, swine, and horses including sperm and ova production, estrus, fertilization, gestation and parturition.
	334	<b>Reproduction in Farm Animals Laboratory.</b> 1 credit. Laboratory techniques relevant to reproductive processes in cattle, sheep, swine, and horses including sperm and ova production, estrus, fertilization, gestation, and parturition.
	337	<b>Meat Merchandising.</b> 2 credits. Step of meat processing and merchandising of retail and foodservice; merchandising practices such as selection, identification, fabrication, pricing, packaging and distribution.
	399	<b>Animal Science Experience.</b> 0 credits. Participation in an approved high-impact learning practice; reflection on professional outcomes from animal science body of knowledge; documentation and self-assessment of learning experience at mid and final curriculum points.
	404	<b>Behavior and Management of Domestic Animals.</b> 4 credits. Application of behavior of cattle, horses, sheep, goats and swine to their management; basic principles, physiology of behavior, perception, training, predators, use of dogs in livestock production, stress and animal welfare.
	406	<b>Beef Cattle Production and Management.</b> 4 credits. Principles involved for profitable and sustainable, integrated beef cattle production as considered from the perspective of the U.S. cow-calf sector and from an overall systems-based approach.
	408	<b>Management of Stocker and Feedlot Cattle.</b> 4 credits. Basic principles involved in feeding, management, marketing and disease control of stocker and feeder cattle from weaning through slaughter for economical production of beef.
	411	<b>Equine Nutrition &amp; Health.</b> 3 credits. Designed to provide students with knowledge of nutrition and health in the horse; gastrointestinal anatomy, nutrient utilization, feeding management and nutritional requirements; metabolic diseases, infectious diseases, internal and external parasites, and herd health management.
	412	<b>Swine Production and Management.</b> 4 credits. Basic principles and their practical application in efficient, economical pork production; all areas of productionbreeding and selection, nutrition, housing and equipment, marketing, herd health and economic management.
	414	<b>Sheep and Goat Production and Management.</b> 4 credits. In-depth hands-on experiences related to sheep and goat production and management providing an advanced understanding of small ruminant production.
	415	<b>Brazil: Comparative Ruminant Production.</b> 3 credits. Contrast two scenarios of ruminant production in Brazil; the effects of globalization on the two different production systems.
	418	<b>Equine Exercise Physiology.</b> (2-2). 3 credits. Changes within the systems of the horse resulting from physical stresses of exercise, adaptations of systems in response to a training regimen; methodology for measuring improvement in physical condition; foundation for development of training programs for horses in moderate, intense or prolonged performance activities.
	420	<b>Equine Production and Management.</b> 4 credits. Application of biological and biotechnological principles and concepts in areas including genetics, breeding, nutrition, reproduction, immunology, parasitology, anatomy and exercise physiology to efficient production of horses for market; management of equine enterprises.
	421	<b>Stock Horse Advanced Training.</b> 3 credits. Theory and practice of applying scientific principles of psychology and behavior modification to advanced training of the stock horse; exercise conditioning and humane training methods to maximize learning effectiveness; current industry trends for preparing horses and showing in stock horse events.

COURSE		DESCRIPTION
ANSC	423	<b>Issues in the Equine Industry.</b> 1 credit. Integration of cumulative knowledge acquired in the equine science curriculum to demonstrate critical thinking and communication skills to address critical issues in the equine industry.
	429	<b>Dairy Production Management.</b> (3-2) 4 credits. Major principles for profitable and sustainable dairy production for a commercial dairy operation; provides hands-on experiences in dairy cattle management; develops critical thinking skills to make dairy cattle management decisions.
	434	<b>Animal Reproduction Management.</b> 4 credits. Available and emerging technologies including control of ovulation, artificial insemination, embryo manipulation and transfer, in vitro fertilization and animal cloning for managing reproduction of farm animals; hands-on sessions using available technologies including artificial insemination of cattle.
	436	<b>Texas Panhandle Beef Production Tour.</b> 2 credits. Facets of beef production from cow/calf operations to retail product; experiential knowledge of technologies and practices to enhance efficiency to enlighten students regarding the array of career opportunities in the beef production industry.
	437	<b>Marketing and Grading of Livestock and Meats.</b> 4 credits. Study of USDA livestock and carcass grades; understanding current market trends for beef, pork, lamb and goat; review of branded and certified programs; principles applied in contracting, breakeven determination, hedging, and grid or formula pricing.
	439	<b>Feedlot Risk Management.</b> 2 credits. Advanced study of livestock marketing techniques; cash sales, video sales, futures and options markets, forward contracting; problem solving in real-time livestock marketing situations; risk of ownership of hypothetical livestock operations.
	447	Advanced Meat Science and Technology. 4 credits. Advanced basic and applied studies of meat science and/ or technology utilizing the underlying physiological and structural components for conversion to human food; understanding the influence of pre- and post-harvest factors on meat quality, composition, color, packaging, sensory and preparation factors; applying scientific and business principles to manufacturing and process flow of commercial meat food products and demonstrating knowledge of these principles through development of meat products.
	451	<b>Current Issues in Animal Agriculture.</b> 4 credits. Preparation to project a professional image and the use of communication skills to describe animal agriculture; converse about the strengths and weaknesses of animal agriculture.
	457	<b>Hazard Analysis and Critical Control Point System.</b> 3 credits. Hazard Analysis and Critical Control Point (HAC-CP) principles specifically related to meat and poultry; microbiological and process overviews; good manufacturing practices and standard operating procedures development.
	467	<b>Processed Meat Food Operations.</b> 3 credits. Application of scientific and business principles to manufacturing and process flow of commercial meat food products.
	470	<b>Quality Assurance for the Food Industry.</b> 3 credits. Principles of food system process control including statistical process control (SPC) and the tools required to assure uniform communication and understanding of quality assurance systems.
	484	<b>Livestock Practicum.</b> 0-2 credits. Provides students an opportunity to learn some of the skills required in livestock production; planned for students who have had limited farm and ranch experience in one or more species.
	485	<b>Directed Studies.</b> 0-4 credits. Directed individual study of selected problem in field of animal science.
	487	<b>Sensory Evaluation of Foods.</b> 3 credits. Application of sensory science principles and practices to food systems including an understanding of discriminative, descriptive and consumer sensory techniques.
	489	<b>Special Topics in</b> 1-4 credits. Selected topics in an identified area of animal science. May be repeated for credit.
	491	<b>Research.</b> 0-4 credits. Research conducted under the direction of faculty member in animal science. May be repeated 3 times for credit. Registration in multiple sections of this course are possible within a given semester provided that the per semester credit hour limit is not exceeded.
	494	<b>Animal Science Internship.</b> 0-5 credits. Independent study and supervised field experience related to the student's professional interest.
	495	<b>International Agriculture &amp; Animal Production.</b> (3-0) 3 credits. Study of international agriculture and animal production in the world market; impact on foreign economies and culture; considerations of import and export marketing on products to and from the U.S. to provide students the exposure to international economies and cultures; study abroad.
	498	<b>Animal Science Capstone.</b> 4 credits. Senior capstone project for students preparing to enter a career related to animal science or a professional school; individual projects based on a self-selected topic in animal science; includes a paper containing both translational and technical descriptions plus statements regarding the expected financial and social impacts of selected topic.
DASC	418	<b>Dairy Science Consortium.</b> 4 credits. Advanced topics including concepts of herd dynamic modeling, advanced dairy nutrition and forage production, human resource development, OSHA safety concepts and training for dairy, advanced reproductive programs, young-stock and heifer management, precision management, facilities and heat stress reduction programs.

## Department of Animal Science - Science Option

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Core Curriculum Coursework	Hours	Completed		
Communication				
ENGL 104	3			
COMM 203, ENGL 210	3			
Mathematics				
MATH <sup>1</sup>	3			
MATH <sup>1</sup>	3			
Citizenship				
American History <sup>1</sup>	3			
American History <sup>1</sup>	3			
Government/Political Science <sup>1</sup>	3			
Government/Political Science <sup>1</sup>	3			
Life and Physical Sciences				
ANSC 107 General Animal Science	3			
CHEM 119 Intro Chem I & Lab	4			
BIOL 111 Intro Biology I	4			
Social and Behavioral Science				
	3			
Language, Philosophy and Culture <sup>1</sup>				
	3			
Creative Arts <sup>1</sup>				
	3			
Total Hours		44		

Major Coursework	Hours	Completed
ANSC 101 Introductory Seminar	1	
ANSC 108 General Animal Science Lab	1	
ANSC 111 Animal Production Systems	3	
ANSC 113 Farm Animal Biosystems	2	
ANSC 303 Animal Nutrition	3	
ANSC 305 Animal Breeding	3	
ANSC 307 Meats	3	
ANSC 318 Feeds and Feeding	3	
ANSC 333 Reproduction	2	
ANSC 334 Reproduction Lab	1	
ANSC 399 Animal Science Experience	0	
ANSC 498 Capstone	4	
Disciplinary Focus (ANSC 404, 406, 408, 412, 414, 420, 434, 437, 447, 451, DASC 418)	8	
Total Hours		34

Supporting Coursework	Hours	Completed
STAT 301, 302, or 303 Statistics	3	
Total Coursework Hours		3

Additional Science Coursework	Hours	Completed
BIOL 112 Intro Biology II	4	
CHEM 120 Intro Chem II & Lab	4	
CHEM 227 Organic Chem I	3	
CHEM 237 Organic Chem I Lab	1	
CHEM 228 Organic Chem II	3	
CHEM 238 Organic Chem Lab II	1	
BICH 410 Biochemistry I	3	
Microbiology (BIOL 206, BIOL 351 or VTPB 405 or ANSC 326-327)	4	
GENE 301 Genetics GENE 312 Genetics Lab	4	
Total Additional Science Hours		27

General Electives	Hours	Completed
Total Hours		12

Additional Graduation Requirements	Hours	Completed		
International & Cultural Diversity/Cul	tural Disc	ourse <sup>1</sup>		
International & Cultural Diversity	3			
Cultural Discourse	3			
ANSC Writing/Communications <sup>2</sup>				
Foreign Language <sup>3</sup>				

<sup>&</sup>lt;sup>1</sup>See Undergraduate Catalog for choices.

<sup>3</sup>This requirement can be satisfied by satisfactory completion of two units of the same foreign language in high school or one year of the same language at the college level.

Other University graduation requirements:

- Minimum 120 credit hours
- 36 upper division credit hours (300-400 level)
- 2.0 Overall GPR
- Minimum grade of "C" in ANSC coursework

Note: Prerequisites for professional programs must be completed with a minimum grade of "C". Students pursuing prerequisites for veterinary or medical programs should take PHYS 201 and PHYS 202 in their general elective coursework.

<sup>&</sup>lt;sup>2</sup>See Academic Advisor for approved choices.

## Department of Animal Science - Production/Industry Option

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Core Curriculum Coursework	Hours	Completed			
Communication	Communication				
ENGLISH/COMMUNICATION <sup>1</sup>	3				
ENGLISH/COMMUNICATION <sup>1</sup>	3				
Mathematics <sup>1</sup>					
MATH <sup>1</sup>	3				
MATH <sup>1</sup>	3				
Citizenship <sup>1</sup>					
American History <sup>1</sup>	3				
American History <sup>1</sup>	3				
Government/Political Science <sup>1</sup>	3				
Government/Political Science <sup>1</sup>	3				
Life and Physical Sciences					
ANSC 107 General Animal Science	3				
CHEM 119 Intro Chem I & Lab	4				
BIOL 111 or BIOL 107	4				
Social and Behavioral Sci	ence¹				
AGEC 105, ECON 202, OR ECON 203	3				
Language, Philosophy and Culture <sup>1</sup>					
	3				
Creative Arts <sup>1</sup>					
	3				
Total Core Curriculum Hours		44			

Additional Science Coursework	Hours	Completed
CHEM 222 Elements of Organic Chem	3	
GENE 301 Genetics Lecture	3	
ANSC 326 or BIOL 206 Microbiology	3	
Total Additional Science Hours		9

<sup>&</sup>lt;sup>1</sup>See Undergraduate Catalog for choices.

Other University graduation requirements:

- Minimum 120 credit hours
- 36 upper division credit hours (300-400 level)
- 2.0 Overall GPR
- Minimum grade of "C" in ANSC coursework

Note: Prerequisites for professional programs must be completed with a minimum grade of "C".

Major Coursework	Hours	Completed
ANSC 101 Introductory Seminar	1	
ANSC 108 General Animal Science Lab	1	
ANSC 111 Animal Production Systems	3	
ANSC 113 Farm Animal Biosystems	2	
ANSC 303 Animal Nutrition	3	
ANSC 305 Animal Breeding	3	
ANSC 307 Meats	3	
ANSC 318 Feeds and Feeding	3	
ANSC 333 Reproduction	2	
ANSC 334 Reproduction Lab	1	
ANSC 399 Animal Science Experience	0	
ANSC 498 Capstone	4	
Disciplinary Focus (ANSC 404, 406, 408, 412, 414, 420, 434, 437, 447, 451, DASC 418)	8	
Total Hours		34

Supporting Coursework	Hours	Completed
ACCT 209	3	
ACCT 210	3	
AG ELECTIVE	3	
AGEC 330 or FINC 409 Finance	3	
AGEC 325, 340, or MGMT 309 Management	3	
STAT 301, 302, 303 or ANSC 309 Statistics	3	
Total Coursework Hours		18

Directed Electives <sup>2</sup>	Hours	Completed
Total Coursework Hours		9

General Elective Coursework	Hours	Completed
Total Coursework Hours		6

Additional Requirements	Hours	Completed			
International & Cultural Diversity/Cultural Discourse <sup>1</sup>					
International & Cultural Diversity	3				
Cultural Discourse	3				
ANSC Writing/Communications <sup>2</sup>					
Foreign Language <sup>3</sup>					
	·				

<sup>&</sup>lt;sup>2</sup>See Academic Advisor for approved choices.

<sup>&</sup>lt;sup>3</sup>This requirement can be satisfied by satisfactory completion of two units of the same foreign language in high school or one year of the same language at the college level.

#### Department of Animal Science Certificate of Meat Science

## **Meat Science at Texas A&M University**

The Department of Animal Science offers a Certificate in Meat Science for students who wish to obtain specialization in this area. Students must complete a minimum of 18 credit hours by taking four required courses and selecting additional courses from the elective list to complete the minimum credit hour requirement.

#### Required

ANSC 307 - Meats. 3 credits

ANSC 326 - Food Bacteriology. 3 credits

ANSC 447 - Advanced Meat Science and Technology. 4 credits

ANSC 457 - Hazard Analysis and Critical Control Point System. 3 credits

#### **Electives**

ANSC 317 - Meat Selection, Evaluation and Grading. 2 credits

ANSC 337 - Meat Merchandising. 2 credits

ANSC 407 - Meat Science and Technology. 3 credits

ANSC 437 - Marketing and Grading of Livestock and Meats. 4 credits

ANSC 467 - Processed Meat Food Operations. 3 credits

ANSC 485 - Directed Studies. 1 to 4 credits

FSTC 327 - Food Bacteriology Lab. 1 credit

Note: The Certificate of Meat Science should be added to a student's degree plan by their primary advisor.

#### Department of Animal Science Certificate of Equine Science

## **Equine Science at Texas A&M University**

The Department of Animal Science offers a Certificate in Equine Science for students who wish to obtain specialization in this area. Students must complete a minimum of **17 credit hours** by taking **eight required courses**.

#### Required

ANSC 201 - Introductory Equine Care & Use. 2 credits

ANSC 211 - Equine Industry Career Preparation. 2 credits

ANSC 311 - Equine Behavior and Training. 2 credits

ANSC 411 - Equine Nutrition and Health. 3 credits

ANSC 420 - Equine Production and Management. 4 credits

ANSC 423 - Issues in the Equine Industry. 1 credit

ANSC 494 - Internship. 3 credits

The Certificate of Equine Science should be added to a student's degree plan by their primary advisor.

# Minor in Agricultural Economics Offered by The Department of Agricultural Economics College of Agriculture and Life Sciences

The minor in Agricultural Economics is available to all students enrolled at Texas A&M University. The primary educational objective of this minor program is to provide students, majoring in other fields, with a fundamental knowledge of the fields of agricultural economics. The courses required for this minor will cover the major business elements of the agricultural industry. The courses listed below constitute the 18 hours required for a minor in Agricultural Economics.

#### A GRADE OF "C" OR BETTER IN EACH COURSE USED FOR THE MINOR IS REQUIRED.

#### **Core Courses (12 hours):**

AGEC 105	Introduction to Agricultural Economics	3 hours
AGEC 314	Marketing Agricultural & Food Products	3 hours
AGEC 330	Financial Management in Agriculture	3 hours
AGEC 340	Agribusiness Management	3 hours

#### (NOTE: Substitutions are not allowed for core courses.)

**Elective Courses (6 hours):** Six additional hours in 300 or 400 level AGEC courses are required. Students are encouraged to visit the Agricultural Economics Undergraduate Counselors in 214 AGLS to select the elective courses based on their career interests.

(NOTE: The following courses cannot be used to meet this requirement: AGEC 400 Field Studies in Agricultural Economics, AGEC 481 Ethics in Agribusiness and Agricultural Economics, AGEC 484 Internship, and AGEC 485 Directed Studies.)

**Prerequisite Courses:** All prerequisites for each core and elective course also must be met. Prerequisite courses (e.g. ACCT 209/229, which must be completed prior to enrollment in AGEC 330), will not be applied to the minor requirements.

**Availability of Courses and Minor Recognition:** The Department of Agricultural Economics cannot guarantee the availability of the courses required to meet the above requirements. Successful completion of the minor will be certified by a degree audit in Howdy during the semester of the student's graduation. The minor will be recognized after graduation on the student's transcript, but not on the student's diploma.

Students pursuing the Minor in Agricultural Economics are to complete the form found at: <u>minor-in-agricultural-economics-form.pdf</u>, and return it to Room 214 in the AGLS building.

#### Mays Business School Courses and Requirements for Undergraduate Minor in Business

The courses listed below constitute the 18 hours required for a minor in Business:

Course Number	Notes	Course Title	Hours & Grade
ACCT 209 or TCCNS ACCT 2301 or 2401	1	Survey of Accounting Principles	3 C or better
ISTM 209	2, 3	Business Information Systems Concepts	3 C or better
MGMT 209	1	Business, Government, and Society	3 C or better
FINC 409	2, 5	Survey of Finance Principles	3 C or better
MGMT 309	2, 5	Survey of Management	3 C or better
MKTG 409	2, 5	Principles of Marketing	3 C or better

- 1. The student's home college or major department may grant, subject to agreement from Mays, transfer course work for ACCT 209 and MGMT 209.
- 2. ISTM 209, FINC 409, MGMT 309 and MKTG 409 must be taken at Texas A&M University and substitutions will not be allowed.
- 3. The Information Systems CLEP exam is available for students who have not taken ISTM 209 to demonstrate mastery of the course concepts. See http://testing.tamu.edu/Exams/CLEP.
- 4. MGMT 212 Business Law (or its TCCNS equivalent, BUSI 2301) is not equivalent to the required course MGMT 209 and will not be approved for substitution.
- 5. All students pursuing the minor in business must have more than 60 credit hours in Howdy at the time of registration to enroll in FINC 409, MGMT 309 and MKTG 409. Mays Business School makes no exceptions to this prerequisite.

**Eligibility:** Students applying for a minor in business must have a 2.0 or better overall GPA. Application is made in the student's home college or major department. Some colleges and departments outside Mays Business School may not permit their students to declare a minor.

**Satisfactory completion of courses:** To be awarded the minor in business and receive transcript recognition, students must obtain a grade of "C" or better in each course listed above (or in any transfer courses as specified). Once declared, minor requirements become graduation requirements. Students declaring the minor must meet all requirements as defined in their catalog.

**Advising:** The student's home college or major department is responsible for advising students who are pursuing a minor in business. Students are encouraged to start taking business minor courses as soon as the minor is declared. Complete all business minor courses at least one semester before the graduating semester to avoid course conflicts.

**Degree audit:** Once declared, minor requirements become graduation requirements. Use Degree Evaluation in Howdy during the graduating semester to certify that all minor in business requirements are being met. The minor in business will be recognized after graduation on the transcript, but not on the diploma.

#### **■ TUITION REBATES AFTER GRADUATION**

Visit http://sbs.tamu.edu for more information.

Certain undergraduate students who attempt no more than three hours in excess of the minimum number of semester credit hours required to complete the degree under the catalog under which they were graduated may be entitled to a \$1,000 tuition rebate after graduation. Several conditions apply and students must meet all of the specified criteria. For a student to be eligible for a rebate of a portion of the undergraduate tuition the student has paid:

- They must have enrolled for the first time in an institution of higher education in the fall 1997 semester or later,
- They must be requesting a rebate for work related to a first baccalaureate degree received from a Texas public university,
- They must have been a resident of Texas, must have attempted all coursework at a Texas public
  institution of higher education, and have been entitled to pay resident tuition at all times while
  pursuing the degree, and
- They must have attempted no more than three hours in excess of the minimum number of semester credit hours required to complete the degree under the catalog under which they were graduated.

Students must apply for rebates prior to receiving their baccalaureate degrees on forms provided by the institution and must provide current address information for at least 60 days after their graduation date.

Students must apply to the Texas A&M University Registrar during the semester in which they expect to graduate. If all requirements are met, the Registrar will notify the Director of Student Financial Services and a Tuition Rebate will be issued for the amount of tuition paid, not to exceed \$1,000, less any outstanding loans or other amounts owed the University.

#### ■ DEPARTMENTAL SCHOLARSHIPS

Current students can apply for scholarships online through the University's general scholarship application to be considered for annually awarded scholarships in the department. These scholarships range in amounts from \$250 to \$2000, and last year more than 100 scholarships were awarded.

#### ■ HONORS PROGRAM IN ANIMAL SCIENCE

#### **Entrance requirements**

Students in animal science are welcome to apply as early as the beginning of their second semester of freshman year. Current and potential ANSC majors who have an overall GPR of  $\geq$  3.5 are eligible for admission to the Department Honors Program. Students are encouraged to consult with an Academic Advisor no later than beginning of junior year to plan their course sequence.

#### Honors recognition and graduation with honors

All completed Honors coursework taken at Texas A&M University is designated as such on a student's official transcript, showing that the student has taken part in this enhanced curriculum. After graduation, the transcript will designate that the student has achieved the distinction of "Honors in Animal Science", as well as any other University academic distinctions. Honors Candidate must file for Departmental Honors distinction through the Kleberg Advising Hub during the semester they will complete their undergraduate degree.

#### Requirements

In addition to satisfying the requirements for the Animal Science major, honors students must satisfy the following requirements:

#### GPR

Participants in the Animal Science Honors Program must maintain a cumulative TAMU GPR of at least 3.50 and a GPR in honors courses of at least 3.25 and no grade in an honors course below a "B".

#### Honors Courses (18 hours minimum)

To achieve ANSC Honors, a student must complete a minimum of 18 hours of Honors coursework, including:

- 1. Twelve (12) hours of honors-level ANSC coursework. At least (9) hours of ANSC courses must be at the 300/400 level.
- 2. 0-6 hours of 400 level directed studies or research (485 or 491) must be completed. No more than 6 hours of 491H and 485H combined can be used to fulfill honors credit hour requirements.

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#### **Honors Contract**

Honors candidate may seek honors credit for a regularly scheduled non-honors ANSC course by submitting an Honors Course Contract Application to the Honors and Undergraduate Research office.

or

For additional information, contact:

Ms. Natalie Bauer Academic Advisor II 109 Kleberg Center (979) 845-7616 natalie.bauer@ag.tamu.edu Honors Program and Academic Scholarships 114 Henderson Hall Texas A&M University College Station, TX 77843-4233 (979) 845-1957 honors@tamu.edu

#### ■ ACADEMIC SUCCESS CENTER

#### **Our Mission**

A truly great university provides the means for its students to graduate in a reasonable amount of time and without a mountain of debt. The Academic Success Center's mission is to help all Aggies enhance their academic performance. The Academic Success Center is a collaboration between Academic Affairs and Student Affairs. Our holistic approach helps students identify roadblocks to academic success and ensures that all students have access to comprehensive resources.

#### The Need

Students admitted to Texas A&M University are among the best in Texas, the United States, and the world. Still, talented students sometimes find college-level academics challenging and stressful. The Academic Success Center strives to help each student achieve their highest possible academic potential.

#### What We Do

Every Aggie is different, so our programming is designed to identify and address individual needs. Students participate in an initial online learning skills assessment to ensure that they pursue the right track. Scholastic performance specialists help each student develop an individualized plan that incorporates campus academic support services. Academic coaching helps students accomplish their plans and chart their progress. The Academic Success Center also provides targeted workshops, discussion groups, and other events to help students identify and access the information and skills they need to succeed.

#### For additional information, contact:

9th Floor • Rudder Tower 979-458-4900 successcenter@tamu.edu

#### **■ COUNSELING & PSYCHOLOGICAL SERVICES**

Counseling & Psychological Services is a department in the Division of Student Affairs at Texas A&M University. The Counseling & Psychological Services helps students talk about issues that are on their mind, and assists students develop academic, career planning, and personal skills. They can help students explore their feelings, understand themselves and their situations, and arrive at decisions and actions that are best for the student.

Confidentiality, to the limits of the law, is respected and no record of student visits is made on an academic transcript or placement file. Except for certain special services, no fees are charged for any counseling services. The CAPS services are time limited because of the number of student requests each semester.

- Services include:
- Study Skills Assistance
- Career Counseling
- Career and Academic Resource Library
- Personal Counseling
- Marriage / Couples Counseling
- Counseling on Human Sexuality
- · Relaxation / Biofeedback Training
- Group Counseling
- Crisis Intervention
- Testing Services (Study Skills, Career Interests, Personality Tests)
- CounseLine Self-Help Tape Program
- Referral Services

To receive these services, visit Counseling & Psychological Services in the Student Services Building. Counseling appointments are available from 8:00 a.m. to noon and 1:00 p.m. to 5:00 p.m. weekdays. Evening services are available by appointment.

Texas A&M University has a strong institutional commitment to the principle of diversity in all areas. In that spirit, admission to TAMU and any of its sponsored programs is open to all qualified individuals without regard to any subgroup classification or stereotype.

Counseling & Psychological Services Student Services Building, 4th Floor 471 Houston St. | 1263 TAMU College Station, TX 77843-1263

P: (979) 845-4427 F: (979) 862-4383 email: caps@tamu.edu http://caps.tamu.edu CAPS helpline (979) 845-2700

#### **■ JUDGING TEAMS**

Judging teams are an opportunity for students to gain experience and knowledge of different aspects of the animal industry and compete against other students across the nation. This program is also a way to meet others, travel the country, and see things a student cannot experience inside a classroom. The TAMU judging teams have a national reputation, regularly winning many national championships and competitions.

#### **Academic Quadrathlon Team**

The Academic Quadrathlon competition tests students' knowledge and skills in all areas of animal science, including beef, dairy, horse, swine, sheep, goats, meats, nutrition, genetics, breeding, reproduction, and other topics. This competition involves four divisions: oral presentation, written test, lab practicum, and a quiz bowl. Each team consists of four members, who work together in each portion of the competition. Each fall, a local AQ competition is held at Texas A&M to determine the team that will represent TAMU at the regional competition. The advancing team will compete at the Southern Section Animal Science meetings in the spring. The winner of each region advances to the National Collegiate Beef Bowl, held in conjunction with the NCBA Annual Convention.

The local competition is sponsored by the Saddle and Sirloin Club and is usually held at the end of the fall semester. Any student can be on a team, and team members can be any classification.

Students interested in the AQ Team should contact Dr. Sushil Paudyal at sushil.paudyal@ag.tamu.edu or 979-458-8182.

#### **Animal Welfare Judging Team**

The Animal Welfare Judging Team is an opportunity for Texas A&M undergraduate students to engage in evaluating scenarios on the basis of animal welfare standards. In this competition, students will utilize science based methods and reasoning in order to evaluate the welfare of animals in a number of settings. Every year, the contest will choose to compete using different species and rotating location through institutions that participate.

For more information, please contact Dr. Courtney Daigle at courtney.daigle@ag.tamu.edu or 979-862-9171.

#### **Dairy Challenge Team**

The Dairy Challenge is a new competition for students interested in dairy production and management, not just evaluation or selection. In this competition, team members evaluate production information and management techniques of a full-fledged dairy and make recommendations for improvement. This team competes at the National Dairy Challenge competition, which rotates year to year between other dairy land-grant universities.

There is no specific course in which students should enroll to participate in this competition, and training takes place the semester prior to competition.

Students interested in the Dairy Challenge should contact Dr. Sushil Paudyal at sushil.paudyal@ag.tamu.edu or 979-458-8182.

#### **Horse Judging Team**

The Horse Judging Team is designed for students interested in equine selection and performance evaluation. This team competes in the Spring Intercollegiate Sweepstakes contest in Fort Worth, then returns to classes in the fall and competes in the AQHA Congress in Columbus, OH; Arabian Nationals in Albuquerque, NM; the National Reining Horse Association Contest in Oklahoma City, OK; and the national competition at the AQHA World Show in Oklahoma City, OK.

Students interested in the Horse Judging Team should enroll in ANSC 316, offered in the spring semester, which meets from 3:00 to 5:00 p.m. Ideally, students interested in the horse judging program should take this class in the spring semester of their freshman year.

For more information, please contact Sarah Schobert at sarah.schobert@ag.tamu.edu or 979-458-2967.

#### **Livestock Judging Team**

The Livestock Judging Team consists of junior and senior students interested in livestock evaluation. The team competes at five different spring contests: the Arizona National in Phoenix, AZ; the National Western in Denver, CO; the Dixie National in Jackson, MS; the Southwestern Exposition in Ft. Worth; and the Houston Livestock Show and Rodeo in Houston. Following spring competitions, the team coordinates several youth judging contests. After returning for the fall, the team competes in the following events: the National Barrow Show in Austin, MN; the Mid-South Fair in Memphis, TN; the American Royal in Kansas City, MO; and the International in Louisville, KY.

Students interested in livestock judging should enroll in ANSC 315 in the fall, which meets from 3:00-4:55 p.m. This class is designed for students who are classified as juniors.

For more information, please contact Caleb Boardman at caleb.boardman@ag.tamu.edu or 979-845-6059.

#### **Meat Animal Evaluation Team (MAET)**

The Meat Animal Evaluation Contest, previously known as the AKSARBEN contest, rotates between host universities across the country. The competition includes live market animal carcass predictions and pricing, breeding animal evaluation, meat judging, and communications and truly serves as a capstone judging experience for students with its incorporation of so many industry applicable concepts. Team members can be of any classification, but many students that compete in this contest have already demonstrated excellence in animal and/or meat evaluation. This team competes in just one official contest each year.

For more information, please contact Jennifer Wyle at jennifer.wyle@ag.tamu.edu or 979-862-3728.

#### **Meats Judging Team**

The Meats Judging Team usually consists of sophomore and junior students interested in competition and the ability to represent the Animal Science Department and Texas A&M University. In the spring, the junior team competes at the National Western in Denver, Colorado; Southwestern Exposition in Ft. Worth; and the Houston Livestock Show and Rodeo in Houston. Following spring competitions, the team hosts 4-H and FFA contests in March and April at the Rosenthal Meat Science & Technology Center. The senior meats team competes in four contests the following fall: the Eastern National, Wyalusing, Pennsylvania; Cargill High Plains, Friona, TX; the American Royal in Omaha, Nebraska, and completes the season at the International Meats Judging Contest in Dakota City, Nebraska.

Students interested in meats judging should enroll in ANSC 317, which meets on Tuesday and Thursday from 3:55-5:45 p.m. in the fall. For more information, please contact Jennifer Wyle at jennifer.wyle@ag.tamu.edu or 979-862-3728.

#### **Ranch Horse Team**

The Ranch Horse Team is designed to teach students the principles of training and showing horses in ranch horse competitions. With the emphasis always on learning and improving the student's riding and training skills, the program has become a popular and important part of the total horse teaching program at Texas A&M University. In April of 2007, the first intercollegiate Stock Horse Competition was held and Texas A&M was one of six colleges to compete. More competitions between colleges, always with emphasis on learning through competing, have been planned.

For more information, contact Paige Linne at paige.linne@ag.tamu.edu or call 979-458-7556.

#### **Wool and Mohair Judging Team**

The Wool and Mohair Judging Team is a chance to get a taste of an intercollegiate judging experience. The team judges at four major contests: Cowboy Classic in Laramie, Wyoming; National Western in Denver, Colorado; San Antonio Livestock Exposition in San Antonio; and the Houston Livestock Show and Rodeo in Houston. These contests consists of wool classes containing four fleeces, reasons on two classes, and a wool-grading rail of 15 fleeces.

Students interested in wool judging should enroll in ANSC 314 in the fall, which meets on Tuesday and Thursday from 3:00-5:00 pm.

For more information, please contact Dr. Shawn Ramsey at shawn.ramsey@ag.tamu.edu or 979-845-7616.

#### **■** CONNECT WITH US!

#### **Facebook**

- Department of Animal Science Facebook page https://www.facebook.com/tamuansc
- Kleberg Advising Hub https://www.facebook.com/kleberg.advising.hub

#### Instagram

- Department of Animal Science https://www.instagram.com/tamuansc/ @tamuansc
- Kleberg Advising Hub https://www.instagram.com/kleberg.advising.hub/ @kleberg.advising.hub

#### **Newsletter**

 Department of Animal Science Monthly Newsletter https://animalscience.tamu.edu/newsandevents/animal-science-monthly/

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# TEXAS A&M UNIVERSITY Animal Science



