

Department of Animal Science and Veterinary Technology

Contact Information

Chair: Jason Apple

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Department curriculum is designed to provide students with foundation knowledge in basic and applied Animal Science (ANSC) and Veterinary Technology (VETT). The department emphasizes development of creative thinking and communication skills that are crucial for career success in the animal and veterinary sciences.

The curriculum balances presentation of theory in the classroom with hands-on experience in the field. The Texas A&M University-Kingsville Farm provides Animal Science majors experience in swine, beef and goat management. The Veterinary Technology Center provides technologically advanced facilities and equipment that permit the highest quality experiential learning for future Veterinary Technologists. The faculty are involved in research that keeps them abreast of current thinking in the animal science and veterinary technology fields to provide students with up-to-date information.

The department assesses its program by administering comprehensive examinations to undergraduates when they enter the program and during their last semester before graduation. Also, the department chair interviews graduating seniors to determine the impression on strengths, weaknesses and needs of the program. Results from these activities are used to continually update and improve undergraduate education.

Students majoring in Veterinary Technology (VETT) must receive a grade of C or better in all VETT courses. Failure to receive a C or better in any VETT course may result in immediate withdrawal from the Veterinary Technology program. Students would need to reapply to the program the following year.

Graduates from the department find employment with state and federal agencies or with ranches, farms, zoos, veterinary clinics and hospitals, as well as other private businesses. The undergraduate curriculum also prepares students for continued education at the Master of Science level.

University Teaching and Research Farm

The University Farm is a working laboratory that provides students with experiences in swine, beef cattle, sheep and meat goat management. The working and animal housing facilities at the University Farm allow faculty and students to conduct animal science and biomedical research involving beef cattle, goats, sheep or swine. The University farm accommodates both applied livestock management and basic physiological research projects.

The University Farm is located one mile north of campus on Armstrong Street and includes over 650 acres of native brush, improved pastures, irrigated and dry-land plots, feed mill, rodeo arena and horse facilities and a covered livestock pavilion. In addition to the close proximity to campus, the diversity of livestock species, facilities and land use provides many educational opportunities for students and faculty in the College of Agriculture and Natural Resources. In addition, the University Farm hosts several yearly activities involving local and regional youth groups, including 4-H and FFA.

Department Faculty

Apple, Jason Professor, Department of Animal Science and Veterinary Technology; Chair; B.S., Oklahoma State University; M.S., Kansas State University; Ph.D., Kansas State University.

Galloway, Cariann Assistant Professor of the Professional Practice, Department of Animal Science and Veterinary Technology; B.S., Texas A&M University-Corpus Christi; D.V.M., Texas A&M University.

Garcia, Michelle Professor, Department of Animal Science and Veterinary Technology; B.S., University of Missouri-Columbia; M.S., University of Missouri-Columbia; Ph.D., Texas A&M University.

Hilton, Clayton Professor, Department of Animal Science and Veterinary Technology; Jo and Bruce Gunn Endowed Director of Veterinary Technology; B.S., Auburn University; M.S., Auburn University; D.V.M., Auburn University College of Veterinary Medicine.

Hoskinson, Christine Assistant Director of Veterinary Technology, Department of Animal Science and Veterinary Technology; B.S., St. Lawrence University; M.S., Texas A&M University-Kingsville.

Kuvlesky, Jr., William Professor, Department of Animal Science and Veterinary Technology; Associate Dean, Dick and Mary Lewis Kleberg College of Agriculture and Natural Resources; Interim Chair, Department of Rangeland & Wildlife Sciences; Caesar Kleberg Wildlife Research Institute; B.S., Texas A&M University; M.S., University of Wisconsin-Madison; Ph.D., Texas A&M University.

Machado, Tanner Associate Professor, Department of Animal Science and Veterinary Technology; B.S., Colorado State University; M.S., Colorado State University; Ph.D., South Dakota State University.

Machen, Richard Professor, Department of Animal Science and Veterinary Technology; Paul Genho Endowed Chair in Ranch Management, King Ranch Institute for Ranch Management; B.S., Angelo State University; M.S., Texas A&M University; Ph.D., Texas A&M University.

Mast, Natasha Associate Professor, Department of Animal Science and Veterinary Technology; B.S., Texas A&M University; M.S., Stephen F. Austin University; Ph.D., Texas A&M University.

Mathis, Clay P Professor, Department of Animal Science and Veterinary Technology; Robert J. Kleberg, Jr. and Helen C. Kleberg Endowed Chair and Director, King Ranch Institute for Ranch Management; B.S., Texas A&M University; M.S., Texas A&M University; Ph.D., Kansas State University.

McManus, Kyle Lecturer, Department of Animal Science and Veterinary Technology; TAMUK Farm Manager; B.S., Texas A&M University-Kingsville; M.S., Texas A&M University-Kingsville.

Pope, Tiffany Instructional Nurse II, Department of Animal Science and Veterinary Technology; B.S., Purdue University.

Rodgers, Julia Instructional Veterinary Nurse, Department of Animal Science and Veterinary Technology; A.A.S., Vet Tech Institute of Houston.

Staiger, Ann E Assistant Professor, Department of Animal Science and Veterinary Technology; B.S., Oklahoma State University; M.S., Oklahoma State University; Ph.D., Cornell University.

Stanko, Randy L Professor, Department of Animal Science and Veterinary Technology; B.S., Colorado State University; M.S., Texas A&M University; Ph.D., North Carolina State University.

Animal Science (ANSC)

ANSC 1211 Preparation for Animal Ag **2 SCH (2-0)**

Key issues and trends impacting care and use of livestock, and domestic and companion animals. Career opportunities in the animal science profession.

ANSC 1419 Intro to Animal Science **4 SCH (3-2)**

Basic scientific fundamentals of livestock production, including feeding and nutrition, reproductive physiology, selective breeding, health, management and marketing of major and minor species.

Fee: \$5.00

ANSC 2307 Prin of Feeds and Feeding **3 SCH (3-0)**

Chemical composition of feeds, utilization of nutrients, characteristics of feedstuffs and feed usage. Prerequisites: ANSC 1419, MATH 1314, CHEM 1311 plus CHEM 1111.

ANSC 2310 Livestock Mgmt Techniques **3 SCH (1-4)**

Application of animal handling and management techniques for major and minor livestock species including behavior of livestock species relevant to handling, methods of restraint and blood sampling. Prerequisites: ANSC 1419 and sophomore standing.

ANSC 3302 Swine Management **3 SCH (3-0)**

Systems of swine management including breeding, feeding and various management problems with their solutions. Prerequisites: ANSC 2307 and ANSC 2310.

ANSC 3304 Beef Management **3 SCH (3-0)**

Systems of beef management including breeding, feeding and various management problems with their solutions. Prerequisites: ANSC 2307 and ANSC 2310.

ANSC 3305 Mkt Class and Grade Livestock **3 SCH (2-2)**

Classifications and judging of livestock; factors affecting classification, grading and valuing and procedures of marketing livestock. Prerequisites: 9 semester hours of Agriculture including ANSC 1419.

ANSC 3306 Equine Management **3 SCH (3-0)**

Principles of equine management, including conformation, nutrition, reproduction, health, and general management practices. Prerequisites: ANSC 2307 and ANSC 2310.

ANSC 3307 Forage Prod, Eval, & Util **3 SCH (3-0)**

This course investigates multidisciplinary approaches toward the development, evaluation and utilization of integrated forage, livestock, and wildlife production systems that are economically feasible and environmentally sustainable. Prerequisites: ANSC 1419 and ANSC 2307. Junior or senior classification or instructor approval.

ANSC 3308 Sheep and Goat Management **3 SCH (3-0)**

Systems of sheep and goat management for meat, fiber and milk including breeding, feeding and various management problems and their solutions. Prerequisite: 9 semester hours of animal science including ANSC 1419.

ANSC 3309 Meat Preparation and Eval 3 SCH (2-3)

Market class determination, live animal evaluation; slaughter, cutting, curing, carcass evaluation and grading. Prerequisites: ANSC 1419 and junior standing.

Fee: \$5.00

ANSC 3310 Processed Meats 3 SCH (3-0)

Fundamentals of processed meats, meat product development, and training for Hazard Analysis Critical Control Points (HACCP). Prerequisite: Junior or senior standing.

ANSC 3313 Repro Physiol of Dom Animals 3 SCH (2-2)

Comparative anatomy and physiology of the male and female reproductive systems, endocrinology, gestation, parturition and lactation, management techniques, performance traits and diseases. Prerequisites: ANSC 1419, BIOL 1308 and 1108, CHEM 1311 plus CHEM 1111.

Fee: \$5.00

ANSC 3333 Domestic Animal Behavior 3 SCH (3-0)

Principles of animal behavior with concentration on livestock animals emphasizing how behavior influences animal production and efficiency.

Prerequisites: ANSC 1419 and junior standing.

ANSC 3335 Animal Breeding and Genetics 3 SCH (3-0)

Introduction to genetic concepts and principles of livestock improvement involving gene function, molecular genetics, gametogenesis, Mendelian inheritance, selection and breeding systems. Prerequisite: ANSC 1419.

ANSC 3336 Artificial Breed of Livestock 3 SCH (2-3)

Study of artificial insemination techniques and reproductive technologies. Application of artificial insemination and pregnancy diagnosis techniques in cattle, goats and swine. Prerequisites: ANSC 1419, ANSC 3313.

Fee: \$5.00

ANSC 3390 Special Topics in Animal Sci 3 SCH (0-0-3)

Selected topics not currently available in existing courses. May be repeated once under different topic. Prerequisite: junior standing.

ANSC 3995 Internship 1-9 SCH (0-0-1-9)

Supervised and planned work experience under college guidelines in an agriculture enterprise or agency setting. Practical application of knowledge and skills of major subject area without classroom consultation, but with formal evaluation. May be repeated for a maximum of nine semester hours toward degree; may not count toward minor. Prerequisite: written consent of adviser and dean.

ANSC 4301 Growth Physiol of Livestock Sp 3 SCH (3-0)

Study of the principles of growth and its measurement from the cell to the tissue to the entire animal. Prerequisites: ANSC 1419 and CHEM 2421 or CHEM 3323.

ANSC 4303 Anat and Phys of Dom Animals 3 SCH (3-0)

Introduction to the study of functional anatomy and fundamental physiological processes of domestic animals. Prerequisites: ANSC 1419 and CHEM 2421 or CHEM 3323.

ANSC 4305 International Animal Agric 3 SCH (3-0)

Global contributions of animal agriculture involving traditional and nontraditional species on the welfare of human development. Includes a review of selected literature papers and a study of alternative livestock production systems especially appropriate for developing countries. Prerequisite: junior or senior standing.

ANSC 4307 Animal Nutrition 3 SCH (3-0)

Chemical composition of the animal, functions of nutrients, digestion, metabolism, physiological effects of feed additives. Prerequisites: ANSC 1419, CHEM 2421.

ANSC 4308 Statistics in Agriculture 3 SCH (3-0)

Basic and practical overview of agricultural experimentation, which includes an understanding of hypothesis testing, sampling, probability, and analysis and interpretation of agricultural research data. Prerequisite: junior/senior standing.

ANSC 4317 Intensive Cattle Management 3 SCH (3-0)

Production and management practices of the feedlot and dairy industries will be explored. Current issues, such as animal welfare, production efficiency, environmental impacts and health related risks will be addressed. Prerequisites: ANSC 1419; Junior or senior classification or instructor approval.

Recommended Prerequisite: ANSC 2307.

ANSC 4385 Experimental Techniques 3 SCH (2-3)

Laboratory exercises and demonstrations of current biotechniques used in animal research and their application to management of animal and wildlife species. Prerequisite: 9 semester hours of agriculture or approval of instructor.

ANSC 4395 Problems in Animal Science 1-3 SCH (1-3)

Literature review, laboratory field problem. May be repeated for a total of 6 semester hours, only 3 hours may count toward a minor. Prerequisite: approval of supervising professor.

Veterinary Technology (VETT)

VETT 1040 Vet. Animal Care and Husb. **0 SCH (0-1-0)**

Participate in the care and keeping of animals housed for teaching purposes in the Veterinary Technology Program. Credit/Noncredit.

VETT 2105 Vet. Medical Calculations **1 SCH (1-0)**

Introduction to common veterinary medical calculations and measurements. Prerequisite: Admission to the Veterinary Technology Program.

VETT 2201 Intro to Vet. Tech **2 SCH (1-2)**

Survey of the profession of veterinary technology with emphasis on basic techniques, handling and care of animals and ethical and professional requirements. Prerequisites: BIOL 1106 and BIOL 1306.

VETT 2233 Veterinary Medical Terminology **2 SCH (2-0)**

Introduction to common veterinary medical terminology with emphasis on descriptive terms, common acronyms and abbreviations.

VETT 3206 Veterinary Diagnostic Imaging **2 SCH (1-2)**

Presentation of theory, principles and practical application of diagnostic imaging techniques within the field of veterinary medicine. Prerequisite: Good standing within the Veterinary Technology Program as demonstrated by obtaining a grade of C or higher in VETT courses.

Fee: \$25.00

VETT 3209 Veterinary Parasitology **2 SCH (1-2)**

Study of parasites common to domestic animals including zoonotic diseases. Prerequisite: Good standing within the Veterinary Technology Program as demonstrated by obtaining a grade of C or higher in VETT courses.

Fee: \$25.00

VETT 3225 Vet. Nursing Tech for SA II **2 SCH (1-2)**

Common management practices, advanced nursing skills and care of canines and felines in a clinical setting. Prerequisites: Good standing within the Veterinary Technology Program as demonstrated by obtaining a grade of C or higher in VETT courses.

Fee: \$25.00

VETT 3227 Vet Nur for Zoo & Wildlife Sp **2 SCH (1-2)**

Feeding, common management practices and care of avian and exotic animals in clinical or zoological setting. Prerequisite: Good standing within the Veterinary Technology Program as demonstrated by obtaining a grade of C or higher in VETT courses.

Fee: \$25.00

VETT 3229 Vet. Clinical Pathology II **2 SCH (1-2)**

Continued study of hematology, blood chemistries, microbiology, urinalysis and cytology with emphasis on lab procedures. Prerequisite: Good standing within the Veterinary Technology Program as demonstrated by obtaining a grade of C or higher in VETT courses.

Fee: \$25.00

VETT 3234 Veterinary Dentistry **2 SCH (1-2)**

Survey of veterinary dentistry topics and procedures with an emphasis on the technician's role in client education, instrument use and care, terminology and charting, intro-oral radiology and prophylactic procedures. Prerequisite: Good standing within the Veterinary Technology Program as demonstrated by obtaining a grade of C or higher in VETT courses.

Fee: \$25.00

VETT 3303 Veterinary Physiology **3 SCH (3-0)**

Study of physiological functions and relationships of body systems in domestic animal species. Prerequisite: Admission into the Veterinary Technology Program.

VETT 3311 Health Mgt. of SA II **3 SCH (3-0-0)**

Continued study of common and zoonotic diseases of canines and felines encountered in the practice of veterinary medicine. Prerequisite: Good standing within the Veterinary Technology Program as demonstrated by obtaining a grade of C or higher in VETT courses.

VETT 3324 Health Mgt. of SA I **3 SCH (3-0-0)**

Introduction to the study of common and zoonotic diseases of canines and felines encountered in the practice of veterinary medicine. Prerequisite: Admission into the Veterinary Technology Program.

VETT 3328 Vet. Clinical Pathology I **3 SCH (1-3)**

In-depth study of hematology, blood chemistries, microbiology, urinalysis and other diagnostic tests with emphasis on lab procedures. Prerequisite: Good standing within the Veterinary Technology Program as demonstrated by obtaining a grade of C or higher in VETT courses.

Fee: \$25.00

VETT 3330 Vet. Nursing Tech for SA I **3 SCH (1-3)**

Common management practices, basic nursing skills and care of canines and felines in a clinical setting. Prerequisite: Good standing within the Veterinary Technology Program as demonstrated by obtaining a grade of C or higher in VETT courses.

Fee: \$25.00

VETT 3390 Spec Topics In Vet Tech **1,3 SCH (1, 3-0-0)**

Selected topics not currently available in existing courses. May be repeated once under different topic. Prerequisite: Approval of instructor.

VETT 3401 Intro to Veterinary Technology **4 SCH (3-4)**

Survey of the profession of veterinary technology with emphasis on basic techniques, handling and care of animals, and ethical and professional requirements. Prerequisite: Admission into the Veterinary Technology Program.

VETT 3402 Veterinary Anatomy **4 SCH (1-4-0)**

Gross anatomical study of body systems and their topographic relationships in domestic animal species. Prerequisite: Admission into the Veterinary Technology Program.

Fee: \$25.00

VETT 4135 VTNE Preparation **1 SCH (1-0)**

Detailed review of veterinary technology practice domains to better prepare students for taking the Veterinary Technician National Examination (VTNE). Prerequisite: Good standing within the Veterinary Technology Program as demonstrated by obtaining a grade of C or higher in VETT courses.

VETT 4217 Veterinary Office Mgmt (WI) **2 SCH (2-0-0)**

Practical experience in management of the veterinary practice. Emphasis on client relations, record keeping, inventory, employment skills, and computer skills in the veterinary environment. Prerequisite: Good standing within the Veterinary Technology Program as demonstrated by obtaining a grade of C or higher in VETT courses.

VETT 4221 Adv. Vet. Nursing Tech **2 SCH (1-2-0)**

Fundamentals of advanced nursing care at the veterinary technologist level. Prerequisites: VETT 4312, VETT 4315, VETT 4319, VETT 4414, and VETT 4426, with a grade of C or better.

VETT 4236 Current Topics in Vet. Med. **2 SCH (2-0)**

Examination of contemporary topics related to the veterinary profession and practice of veterinary medicine. Prerequisite: Good standing within the Veterinary Technology Program as demonstrated by obtaining a grade of C or higher in VETT courses.

VETT 4291 Global Veterinary Experience **2 SCH (2-0)**

Immersion into global veterinary medicine topics including wildlife medicine and conservation, safe capture and immobilization techniques and zoonotic diseases of concern. Prerequisite: Successful completion of VETT 4420 and VETT 4426. Good standing within the Veterinary Technology Program as demonstrated by obtaining a grade of C or higher in VETT courses.

VETT 4312 Veterinary Pharmacology **3 SCH (3)**

Fundamentals of pharmacology including recognition, calculation, labeling, packaging, and administration of veterinary drugs, biologicals and therapeutic agents. Prerequisite: Good standing within the Veterinary Technology Program as demonstrated by obtaining a grade of C or higher in VETT courses.

VETT 4315 Health Management of Hoofstock **3 SCH (3-0-0)**

Common diseases, preventive medicine and nursing of food and fiber animals and horses in the practice of veterinary medicine. Prerequisite: Good standing within the Veterinary Technology Program as demonstrated by obtaining a grade of C or higher in VETT courses.

VETT 4322 Health Mgt. of Zoo/Wildlife **3 SCH (3-0-0)**

Common diseases, preventive medicine and nursing of avian and exotic animals in the practice of veterinary medicine. Prerequisite: Good standing within the Veterinary Technology Program as demonstrated by obtaining a grade of C or higher in VETT courses.

VETT 4323 Lab Animal/Sm. Mammal Mgt. **3 SCH (1-3-0)**

Fundamentals of laboratory and small mammal medicine including management, husbandry, and common procedures. Prerequisite: Good standing within the Veterinary Technology Program as demonstrated by obtaining a grade of C or higher in VETT courses.

Fee: \$25.00

VETT 4331 Vet. Nurs. For Hoofstock **3 SCH (1-3)**

Feeding, management practices, and care of food and fiber animals and equids in a clinical setting. Prerequisite: Good standing within the Veterinary Technology Program as demonstrated by obtaining a grade of C or higher in VETT courses.

Fee: \$25.00

VETT 4420 Vet. Anes./Surg. Nursing II **4 SCH (1-4)**

In-depth application of surgical, obstetrical, and anesthesia techniques. Prerequisite: Good standing within the Veterinary Technology Program as demonstrated by obtaining a grade of C or higher in VETT courses.

Fee: \$25.00

VETT 4426 Vet. Anes./Surg. Nursing I **4 SCH (1-4)**

Fundamentals of veterinary anesthesia, patient monitoring, asepsis, and surgical instrument identification and care. Prerequisite: Good standing within the Veterinary Technology Program as demonstrated by obtaining a grade of C or higher in VETT courses.

Fee: \$25.00

VETT 4910 Vet. Tech Clinical Externship **9 SCH (9-0)**

Supervised and planned work experience under college guidelines in a veterinary clinical setting. Practical application of knowledge and skills of major subject area without classroom consultation, but with formal evaluation. Prerequisite: Good standing within the Veterinary Technology Program as demonstrated by obtaining a grade of C or higher in VETT courses.

Majors

- Agriculture - Animal - Wildlife Veterinary Technology, B.S.
- Agriculture - Animal Science - Pre-Vet, B.S.
- Agriculture - Animal Science, B.S.

Minors

- Animal Science, Minor