

# Animal Science Courses

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**ANS 510 - Advanced Ultrasound Techniques for Body Composition in Livestock**

Hours: 3

This course is designed to provide students with basic knowledge and techniques of real-time ultrasound to measure body composition in Livestock. Students will compose and present a research paper to class members and Professor.

**ANS 511 - Adv Reproductive Physiology**

Hours: 3

Recent advances in mammalian reproductive physiology. Special emphasis on endocrine chemistry and cellular action. Prerequisites: ANS 311.

**ANS 512 - Endocrinology of Domestic Animals**

Hours: 3

Study of the anatomy and physiology of the endocrine system, hormone-producing cells, synthesis of hormones, mechanisms of hormone action, and effects of hormones on physiological processes in domestic animals. Study of hormone-related diseases and disorders.

**ANS 513 - Environmental Physiology of Domestic Animals**

Hours: 3

Principles of environmental physiology and animal adaptation with emphasis on mechanisms of temperature regulation and related nutritional and metabolic-hormonal functions.

**ANS 515 - Advanced Animal Nutrition**

Hours: 3

Principles of animal nutrition; anatomy and physiology of the digestive system; biochemistry of digestion, absorption, and metabolism; and animal nutrition research methodology with emphasis on domestic animal species.

**ANS 517 - Advanced Domestic Animal Behavior and Welfare**

Hours: 3

Etiology of common and uncommon behaviors in domestic meat animal species will be explored from the physiological and neurological perspective. Ethical determinations from a global perspective of food animal species will be outlined and explored. Crosslisted with: ANS 417

**ANS 522 - Animal Breeding**

Hours: 3

Animal Breeding. Three semester hours. An advanced course dealing with problems in population genetics as applied to domestic animals. Heredity and environmental interaction, methods of selection, mating systems, and biometrics of animal improvements. Prerequisite: ANS 310.

**ANS 532 - Advanced Beef Cattle Management**

Hours: 3

Three semester hours (3 lect) covering the current status of the beef industry and the latest advances in genetics, breeding, nutrition, welfare, and health management of beef cattle. A emphasis in the the translation and adoption of current research into beef cattle management practices. Crosslisted with: ANS 412.

**ANS 589 - Independent Study**

Hours: 1-4

Independent Study. One to four semester hours. Individualized instruction/research at an advanced level in a specialized content area under the direction of a faculty member. May be repeated when the topic varies. Prerequisite: Consent of department head.

**ANS 597 - Special Topics**

Hours: 1-4

Special Topics. One to four semester hours. Organized class. May be repeated when topics vary.