

# Animal Science (ANSC)

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## **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** Introd 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: ANSC 1419 and Junior standing.

## **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 Production, Evaluation & Utilization **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: ANSC 2307 and ANSC 2310.

## **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 Meatss **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 1306 and BIOL 1106, CHEM 1311 and CHEM 1111; and junior standing.

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 sophomore or 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 and MATH 1314; junior standing.

## **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 or senior 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 instructor and department chair.

**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 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 3323.

**ANSC 4304** Anatomy & Physiology of Domestic Animals II **3 SCH (3-0)**

The course is designed to teach students about the functional anatomy and fundamental physiological processes of domestic animals. The course includes anatomical terminology and a detailed study of nervous tissue physiology, immune system, respiratory system and urinary system. Prerequisites: ANSC 1419 and 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 2307 and CHEM 3323.

**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: Math 1314 and junior/senior standing.

**ANSC 4310** Comparative Anatomy of Domestic Animals II **3 SCH (2-2)**

This course is designed to teach students about the functional anatomy of domestic animals. The course includes anatomical terminology and a detailed study of the skeletal system, muscle system, nervous system, and circulatory system. Prerequisites: ANSC 1419 and 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. Prerequisite: ANSC 2307; Junior or senior classification or instructor approval.

**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.