

# ANIMAL SCIENCE (ANSC)

---

## **ANSC 1119. Animal Science Laboratory. 1 Hour.**

Laboratory for ANSC 1319.

**Prerequisite:** Concurrent enrollment in ANSC 1319.

## **ANSC 1319. Animal Science. 3 Hours.**

This is a basic course of study to acquaint students with the scope of animal science: origin, history and development of economically important species and breeds of livestock; concepts of selection, breeding, nutrition, management and research as applied to livestock production. Laboratory experiences (ANSC 1119) involve the practical skills needed to manage animal enterprises.

**Prerequisite:** Concurrent enrollment in ANSC 1119.

## **ANSC 2321. Livestock Evaluatn & Selection. 3 Hours.**

This course is designed to present the basic principles and concepts in selection and evaluation of beef cattle, sheep, swine, and horses. The ability to present accurate and concise oral reasons for selecting and placing livestock is reviewed.

## **ANSC 2330. Companion Animal Science. 3 Hours.**

This course is an overview of the companion animal industry, including species and breeds, feeding and nutrition, reproduction, anatomy and physiology, care, management, training, health, behavior, and current research topics related to companion animals.

## **ANSC 2360. Animals And Society. 3 Hours.**

This course will acquaint the student with the broad role of animals in society from national, global and historic perspectives. The impact of animals and domestic livestock on economic, social and political policy will be discussed. Emphasis will be placed on agricultural and non-agricultural uses, societal and cultural perspectives, consumer influences, animal ethics, animal research, appropriate animal care, livestock quality assurance programs, animal welfare, animal rights and the animal-human bond.

## **ANSC 2396. Spec Topics in Animal Science. 3 Hours.**

This course will examine special topics/issues in Animal Science at an introductory level. This course may be repeated up to three times as topics and subject matter changes. Credits 3.

## **ANSC 3336. Livestock Marketing. 3 Hours.**

This course will be a study of livestock marketing techniques, cash sales, risk management, forward contracting, problem solving using real-time livestock marketing situations, and risk of ownership in hypothetical livestock operations.

**Prerequisite:** ANSC 1319 and Sophomore standing.

## **ANSC 3363. Anatomy & Physiology of the Domestic Animal. 3 Hours.**

Introduction to anatomy and physiology of domestic animals. Aspects of the nervous, skeletal, muscular, circulatory, urinary, and endocrine systems are covered.

**Prerequisite:** ANSC 1319 and Sophomore standing.

## **ANSC 3373. Animal Nutrition. 3 Hours.**

This course consists of a study of the processes of digestion, absorption, metabolism, physiology, and circulation. Each nutrient is studied from the standpoint of chemistry, sources, function, and metabolism.

**Prerequisite:** ANSC 1319 and Sophomore standing.

## **ANSC 3376. Meat Science. 3 Hours.**

Lecture topics will include muscle and skeletal biology, conversion of muscle to meat, food-borne illnesses and HACCP. Labs will focus on the methods of harvesting, preparation, preserving, and storing meat. Junior standing.

**Prerequisite:** ANSC 1319.

## **ANSC 3377. Meat and Muscle Biology. 3 Hours.**

In this course, students examine fundamental principles of muscle structure, function, fiber type, and repair, as well as the physiological transformation of muscle to an edible product. Additionally, students investigate how each of the characteristics of muscle will affect the ultimate quality of a product through its conversion into meat.

**Prerequisite:** ANSC 1319.

## **ANSC 4310. Animal Growth & Performance. 3 Hours.**

A study of the physiological and endocrine system factors affecting growth and performance of domestic animals. The course includes the study of meat animal growth and developmental processes and factors that affect body/carcass composition, carcass quality and value.

**Prerequisite:** ANSC 3373 and Junior standing.

## **ANSC 4336. Stocker & Feedlot Management. 3 Hours.**

The course will evaluate the basic principles involved in feeding, management, marketing and disease control of stocker and feedlot cattle for economical production of beef. A review of scientific knowledge and research advances will be applied to modern stocker and feedlot cattle operations. Junior standing.

**Prerequisite:** ANSC 1319.

**ANSC 4337. Behavior & Mgmt of Domestic Anim. 3 Hours.**

This course will study behavior associated with domesticated animals. The effects of selective breeding, physical and social environments, and the developmental stage on social organization will be studied. Additionally, aggressive behavior, sexual behavior, productivity, and the training of domestic animals will be examined. Junior standing.

**Prerequisite:** ANSC 1319.

**ANSC 4339. Advanced Livestock and Horse Evaluation. 3 Hours.**

This course provides an advanced study of the visual appraisal, grading, and evaluation techniques affiliated with livestock and horses. The evaluation of conformation will be studied along with the influence of heredity and environmental factors, industry trends and standards, and performance and production factors. Junior standing.

**Prerequisite:** ANSC 2321 or ANSC 2390.

**ANSC 4360. Livestock Mgt Techniques. 3 Hours.**

Skills and knowledge pertaining to the production of beef cattle, swine, goats, sheep, and horses. Laboratory exercises involve various management practices and selection of livestock based on visual evaluation and genetic performance. This course is not intended for animal science majors. CISE minors only.

**Prerequisite:** ANSC 1319 and must have completed 55 hours of coursework.

**ANSC 4369. Animal Science Special Topics. 3 Hours.**

Individual study in specialized areas of Animal Science. To be directed and approved by the Animal Science advisor. This course is designed to be a multi-topic course. The student can take the course under various special topics being offered.

**Prerequisite:** Junior standing.

**ANSC 4376. Sheep & Goat Production & Mgt. 3 Hours.**

Application of basic genetic principles, physiology, and nutrition to practical sheep, meat goat and Angora goat production systems; management, health care and marketing of animals and fiber. Junior standing.

**Prerequisite:** ANSC 1319.

**ANSC 4380. Beef Cattle Production & Mgmt. 3 Hours.**

A study of basic principles and methods of breeding, nutrition, reproduction, management, marketing, and disease control relating to various segments of the beef industry. Application of the latest bovine research is reviewed. Laboratory exercises involve practical skills relating to performance records and management of beef cattle.

**Prerequisite:** ANSC 1319 and Junior standing.

**ANSC 4389. Animal Reproduction. 3 Hours.**

Physiology of the male and female reproductive tract; hormones governing reproduction; the estrous cycle; mating; gestation; parturition; lactation; artificial insemination; embryo transfer technology; and factors affecting reproductive efficiency of common animal species used for agricultural purposes. Junior standing.

**Prerequisite:** ANSC 1319.

**ANSC 4394. Animal Feeds And Feeding. 3 Hours.**

A study of the characteristics of feedstuffs, a review of the essential nutrients and digestion, ration and mixture formulation, feeding methods, and nutritional management of beef, swine, sheep, goats, poultry, and horses. Exercises will consist of practical applications in formulating rations for livestock using conventional techniques and computers.

**Prerequisite:** ANSC 3373 and Junior standing.

**ANSC 4395. Animal Breeding & Genetics. 3 Hours.**

The application of genetic principles to livestock improvement. Study of genetic basis of selection and systems of mating, and the development of breeding programs based on the principles of population genetics.

**Prerequisite:** ANSC 1319 and Junior standing.

**ANSC 4398. Animal Diseases & Public Hlth. 3 Hours.**

This course will study diseases shared in nature between animals and man. Emphasis will be placed on how these diseases exist in natural environments, modes of transmission and methods of control and prevention. The course will cover infectious agents and the clinical signs that they cause in both man and animal.

**Prerequisite:** ANSC 1319 and junior standing.