

# ANIMAL SCIENCE (ANSC)

## **ANSC 130 Introduction to Horse Science 2 Hours**

An introductory study of equine science including an overview of the horse industry, anatomy, management, reproduction, nutrition, genetics, behavior and disease.

**Corequisite(s):** ANSC 131

*Recent Term(s) Offered: spring 2022; fall 2022; fall 2023*

## **ANSC 131 Horse Science Lab 1 Hour**

Laboratory study of equine science including an overview of the horse industry, anatomy, management, reproduction, nutrition, genetics, behavior and disease.

**Corequisite(s):** ANSC 130

*Recent Term(s) Offered: spring 2022; fall 2022; fall 2023*

## **ANSC 140 Introduction to Animal Science 3 Hours**

An introduction to the animal industry on a state, national and global basis, basic principles of reproduction and endocrinology, breeding and genetics, animal products and diseases. Emphasis is placed upon farm animal classification.

*Recent Term(s) Offered: spring 2022; fall 2022; spring 2023; fall 2023; spring 2024; fall 2024*

## **ANSC 141 Introduction to Animal Science Laboratory 1 Hour**

A laboratory course correlated with AGRI 140. Laboratories are planned to coincide with lecture topics.

**Prerequisite(s):** ANSC 140 (may be taken concurrently)

*Recent Term(s) Offered: spring 2022; fall 2022; spring 2023; fall 2023; spring 2024; fall 2024*

## **ANSC 232 Basic Equitation 3 Hours (repeatable max of 6 hrs)**

For students with little previous experience in horsemanship. Basic disciplines of hunt seat and stock seat horsemanship and selection, care and use of horses and equipment are included.

*Recent Term(s) Offered: spring 2022; fall 2022; spring 2023; fall 2023; spring 2024; fall 2024*

## **ANSC 240 Livestock Management 2 Hours**

A general animal science course offering hands on experience in management of beef cattle, dairy cattle, sheep, swine, and horses.

**Prerequisite(s):** ANSC 140

**Corequisite(s):** ANSC 241

*Recent Term(s) Offered: fall 2022; fall 2023; fall 2024*

## **ANSC 241 Livestock Management Laboratory 1 Hour**

A laboratory course correlated with ANSC 240.

**Corequisite(s):** ANSC 240

*Recent Term(s) Offered: fall 2022; fall 2023; fall 2024*

## **ANSC 321 Comparative Anatomy 4 Hours (repeatable max of 4 hrs)**

A comparative study of the morphology and relationships of the organ systems of some typical vertebrates.

**Prerequisite(s):** ANSC 140 and BIOL 120 and BIOL 121

*Recent Term(s) Offered: spring 2022; spring 2023; spring 2024*

## **ANSC 330 Horse Production 2 Hours**

Principles of animal science as they relate to the horse and equine industry, characteristics of breeds, anatomy, nutrition, genetics, reproduction, behavior, training, health, breeding, management, and marketing concepts are presented. Note: Approval of instructor may be required.

**Prerequisite(s):** ANSC 140

**Corequisite(s):** ANSC 331

*Recent Term(s) Offered: spring 2023; spring 2024*

## **ANSC 331 Horse Production Laboratory 1 Hour**

A laboratory course correlated with ANSC 330.

**Corequisite(s):** ANSC 330

*Recent Term(s) Offered: spring 2023; spring 2024*

## **ANSC 333 Horse Training 2 Hours**

The student is assigned a horse to train. Techniques for halter-breaking, gentling, grooming, lunging, saddling, driving and riding the untrained horse are included. Note: Approval of instructor may be required.

**Prerequisite(s):** ANSC 232

**Corequisite(s):** ANSC 334

*Recent Term(s) Offered: spring 2022*

## **ANSC 334 Horse Training Laboratory 1 Hour**

A laboratory course correlated with ANSC 333.

**Corequisite(s):** ANSC 333

*Recent Term(s) Offered: spring 2022*

## **ANSC 336 Conformation and Performance Evaluation of Horses 3 Hours (repeatable max of 3 hrs)**

Evaluation and selection of horses based on conformation and athletic ability, and oral and written defense of evaluations. The importance of environment, records, genetics, and conformation in selection are discussed. Note: Permission of instructor required.

*Recent Term(s) Offered: fall 2023*

## **ANSC 338 Introductory Livestock Evaluation and Selection 3 Hours**

Fundamental selection criteria utilized in evaluating beef cattle, hogs, sheep, dairy cattle and horses. Oral and written evaluations are included. Note: Consent of instructor may be required.

**Prerequisite(s):** ANSC 140

*Recent Term(s) Offered: fall 2023; fall 2024*

## **ANSC 340 Meats and Meat Products 3 Hours**

A non-technical course designed for the average consumer. The role of meats and meat products in human nutrition; meat substitutes; grading and inspection; identification and selection of wholesale and retail cuts of meat; care and storage of meat products are studied.

**Prerequisite(s):** ANSC 140

*Recent Term(s) Offered: fall 2022; spring 2023; fall 2023; spring 2024; fall 2024*

## **ANSC 342 Advanced Riding Maneuvers and Collection 3 Hours**

Collection of a horse and application of certain advanced maneuver techniques, such as the side pass, spin, lead changed, sliding stops, and jumping.

**Prerequisite(s):** ANSC 232

*Recent Term(s) Offered: None*

**ANSC 345 Principles of Animal Nutrition 3 Hours**

Principles of nutrition basic to animal feeding; chemistry and physiology of nutrition: nutrient requirements for normal body functions.

**Prerequisite(s):** ANSC 140 and BIOL 120 and CHEM 107

*Recent Term(s) Offered: fall 2022; fall 2023; fall 2024*

**ANSC 347 Animal Pathology 3 Hours**

Distribution, nature, manner of dissemination, methods of control, prevention and eradication of infectious and parasitic diseases of domestic animals are discussed.

**Prerequisite(s):** ANSC 140 and BIOL 120

*Recent Term(s) Offered: spring 2022; spring 2023; fall 2024*

**ANSC 350 Equine Career Opportunities 2 Hours**

A comprehensive study of careers in the Equine industry. Interaction with Equine industry professionals, hands on learning opportunities, and insight into specific career paths will be provided.

**Prerequisite(s):** ANSC 130 and ANSC 131

*Recent Term(s) Offered: None*

**ANSC 352 Applied Horsemanship 3 Hours (repeatable max of 6 hrs)**

Application of horsemanship skills within the equine industry. Field trips are required with this course on predetermined dates. Through theoretical knowledge and practical application, students will develop the riding skills, horsemanship, and competition strategies necessary to excel at the collegiate level.

**Prerequisite(s):** ANSC 333 (may be taken concurrently) with a minimum grade of C

*Recent Term(s) Offered: None*

**ANSC 360 Equine Events Management 3 Hours**

Fundamentals of managing equine and other livestock events. Involves active participation in preparing for and conducting WKU equine events. Lecture/lab.

**Prerequisite(s):** ANSC 130 and ANSC 131

*Recent Term(s) Offered: None*

**ANSC 362 EQUINE FACILITIES MANAGEMENT 3 Hours**

Discussion of various types of equine facilities and their proper management. Hands-on activities associated with private, public, and event management will be incorporated into lecture material.

**Prerequisite(s):** ANSC 130 and ANSC 131

*Recent Term(s) Offered: None*

**ANSC 431 Dairy Production 2 Hours**

Principles of nutrition and management and their practical application to commercial dairy herds are emphasized.

**Prerequisite(s):** ANSC 345 and ANSC 140

**Corequisite(s):** ANSC 432

*Recent Term(s) Offered: None*

**ANSC 432 Dairy Production Laboratory 1 Hour**

A laboratory course correlated with ANSC 431.

**Corequisite(s):** ANSC 431

*Recent Term(s) Offered: None*

**ANSC 437 Physiology of Reproduction in Domestic Animals 2 Hours**

Endocrinology and physiology of reproductive systems; anatomical, physiological and biochemical bases of reproduction; factors affecting means of improving efficiency of reproduction, artificial insemination, synchronized estrus and related topics are presented.

**Prerequisite(s):** ANSC 140 (may be taken concurrently) and BIOL 120 (may be taken concurrently)

**Corequisite(s):** ANSC 438

*Recent Term(s) Offered: fall 2022; fall 2024*

**ANSC 438 Physiology of Reproduction in Domestic Animal Laboratory 1 Hour**

A laboratory course correlated with ANSC 437.

**Corequisite(s):** ANSC 437

*Recent Term(s) Offered: fall 2022; fall 2024*

**ANSC 439 Equine Reproduction and Breeding 3 Hours**

Reproductive anatomy and physiology of the stallion and mare as they relate to modern breeding practices. Training in semen handling, artificial insemination, and neonatal care.

**Prerequisite(s):** (ANSC 330 and ANSC 331)

*Recent Term(s) Offered: spring 2023; spring 2024*

**ANSC 440 Advanced Livestock Evaluation and Selection 3 Hours (repeatable max of 3 hrs)**

Genetic and environmental factors involved in selecting beef cattle, hogs, sheep, dairy cattle and horses. Techniques of evaluating the economically important traits of prospective breeding animals are emphasized. Students will participate in intercollegiate competition. Note: Instructor's consent may be required.

**Prerequisite(s):** ANSC 338

*Recent Term(s) Offered: spring 2022; spring 2023; spring 2024*

**ANSC 442 Beef Production 2 Hours**

History and importance of the beef cattle industry; programs and areas of production, selection, breeding, feeding and management and common diseases are included.

**Prerequisite(s):** ANSC 345 and ANSC 140

**Corequisite(s):** ANSC 443

*Recent Term(s) Offered: fall 2022; fall 2023; fall 2024*

**ANSC 443 Beef Production Laboratory 1 Hour**

A laboratory course correlated with ANSC 442.

**Corequisite(s):** ANSC 442

*Recent Term(s) Offered: fall 2022; fall 2023; fall 2024*

**ANSC 446 Animal Breeding 2 Hours**

Application of genetic and statistical principles to breeding and improvement of farm animals; the role of selection in changing populations; effect of different mating systems upon improvement of farm animals are investigated.

**Prerequisite(s):** ANSC 140 and BIOL 120 and AGRI 291

**Corequisite(s):** ANSC 447

*Recent Term(s) Offered: None*

**ANSC 447 Animal Breeding Laboratory 1 Hour**

A laboratory course correlated with ANSC 446.

**Corequisite(s):** ANSC 446

*Recent Term(s) Offered: None*

**ANSC 448   Animal Feeds and Feeding Practices   4 Hours** (repeatable max of 4 hrs)

Livestock feeds and their nutrients; functions of and requirements for nutrients; evaluation of feeds, feeding practices and formulation of rations for all species of livestock are included; techniques involved in nutrition research; readings in current literature are presented.

**Prerequisite(s):** ANSC 345 (may be taken concurrently)

*Recent Term(s) Offered: spring 2022; spring 2023; spring 2024*

**ANSC 458   Animal Growth and Meat Quality   3 Hours**

Comprehensive overview of factors affecting animal growth, carcass composition, and meat quality.

**Prerequisite(s):** ANSC 140 and BIOL 120

**Restriction(s):** Enrollment limited to students with a semester level of Junior or Senior.

*Recent Term(s) Offered: spring 2023; spring 2024*

**ANSC 475   Selected Topics in Agriculture   1-3 Hours** (repeatable max of 6 hrs)

Special topics acquaint advanced undergraduate students with scientific developments of current interest in agriculture. Appropriate topic titles are assigned. Lecture and assignments vary with credit. May be repeated with change in content. Note: Consent of instructor required.

*Recent Term(s) Offered: spring 2022; summer 2022; fall 2022; fall 2023; fall 2024*