ANIMAL SCIENCE (ANSC)

See Course Description Symbols and Terms (https://catalog.csuchico.edu/academic-standards-policies/course-description-symbols-terms/) for an explanation of course description terminology and symbols, the course numbering system, and course credit units.

ANSC 101 Introduction to Animal Science  3 Units
Typically Offered: Fall and spring
An overview, using a scientific perspective, of farm animals. Highlights anatomy and physiology of farm animals, reproduction, nutrition, animal health, animal products, animal behavior, and pertinent social issues, such as animal rights. Includes human opportunity to influence trait inheritance, population densities, and productivity. 3 hours laboratory, 2 hours lecture. (000419)
Grade Basis: Graded
Repeatability: You may take this course for a maximum of 3 units
Course Attributes: Lower Division

ANSC 110 Directed Work Experience in Animal Sciences  2 Units
Typically Offered: Fall and spring
Directed work experience in the management of beef, dairy, meats, sheep, and swine enterprises at the University Farm, with three weeks at each enterprise. Weekly conferences on student projects and individual and group problems. 3 hours laboratory, 1 hour lecture. (000424)
Grade Basis: Graded
Repeatability: You may take this course for a maximum of 4 units
Course Attributes: Lower Division

ANSC 120 Livestock Skills  3 Units
Typically Offered: Spring only even years
An introduction to selection, nutrition, health, and management of beef, sheep, swine, and dairy for livestock youth programs, including ethical practices associated with livestock exhibition. This class is designed primarily for students pursuing a career in agricultural education. 3 hours laboratory, 2 hours lecture. (000446)
Grade Basis: Graded
Repeatability: You may take this course for a maximum of 3 units
Course Attributes: Lower Division

ANSC 160 Veterinary Practices  2 Units
Typically Offered: Fall and spring
Designed to allow the student to become familiar with various vaccines, equipment, and restraining techniques used in routine treatment of farm animals. Selection of proper materials, veterinary nomenclature, actual handling and treatment of farm animals involved. 3 hours laboratory, 1 hour lecture. (000436)
Grade Basis: Graded
Repeatability: You may take this course for a maximum of 2 units
Course Attributes: Lower Division

ANSC 198 Special Topics  1-3 Units
Typically Offered: Fall and spring
This course is for special topics offered for 1.0-3.0 units. Typically the topic is offered on a one-time-only basis and may vary from term to term. See the Class Schedule for the specific topic being offered. 3 hours lecture. (000454)
Grade Basis: Graded
Repeatability: You may take this course more than once
Course Attributes: Lower Division

ANSC 199 Special Problems  1-3 Units
Prerequisite: Faculty permission.
Typically Offered: Fall and spring
This course is an independent study of a topic or problem. Students must register with a supervising faculty member. A maximum of 6 units of special problems may be applied toward a bachelor's degree in agriculture. 0 hours supervision. (022140)
Grade Basis: Credit/No Credit
Repeatability: You may take this course for a maximum of 6 units
Course Attributes: Lower Division

ANSC 220 Introduction to Livestock Evaluation  3 Units
Typically Offered: Spring only
This course provides students a fundamental understanding of how to evaluate market and breeding beef, sheep, goats, and swine utilizing both visual appraisal as well as objective performance records. Students are given a framework to make decisions with an objective approach to select animals based on certain criteria and standards. Students who demonstrate proficiency in understanding selection at its most basic level, as well as demonstrate effectiveness in oral reasons have an opportunity to participate on the Intercollegiate Livestock Judging Team at CSU, Chico. 2 hours activity, 2 hours seminar. (022077)
Grade Basis: Graded
Repeatability: You may take this course for a maximum of 3 units
Course Attributes: Lower Division

ANSC 230 Animal Feeds and Nutrition  3 Units
Typically Offered: Fall and spring
An introduction to the nutrition of domestic and wild animals with emphasis on appropriate nutrition for various activities. A survey of the integration of feed production and animal production systems. Computer formulation and analysis of diets to achieve desired performance levels of animals. 2 hours activity, 2 hours lecture. (000434)
Grade Basis: Graded
Repeatability: You may take this course for a maximum of 3 units
Course Attributes: Lower Division

ANSC 250 Live Animal and Carcass Evaluation  3 Units
Typically Offered: Spring only
Evaluation of market livestock as related to growth and development, production efficiency, carcass merit, selection of breeding animals based on performance, production records and visual appraisal. Specific reference to factors determining carcass value. 2 hours activity, 2 hours seminar. (000445)
Grade Basis: Graded
Repeatability: You may take this course for a maximum of 3 units
Course Attributes: Lower Division

ANSC 271 Principles of Beef Cattle Production  3 Units
Typically Offered: Fall only
An overview of the United States beef industry including an introduction to the segments of the beef production chain and the scope of the industry. The majority of the course focuses on basic principles including genetics and breeding, nutrition, reproduction, herd health, carcass evaluation and marketing. 3 hours lecture. (020992)
Grade Basis: Graded
Repeatability: You may take this course for a maximum of 3 units
Course Attributes: Lower Division
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
<th>Prerequisite</th>
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<tbody>
<tr>
<td>ANSC 272</td>
<td>Principles of Sheep &amp; Goat Production</td>
<td>3</td>
<td></td>
<td>Fall only even years</td>
<td>Graded</td>
<td>You may take this course for a maximum of 3 units</td>
<td>Lower Division</td>
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<tr>
<td>ANSC 273</td>
<td>Principles of Swine Production</td>
<td>3</td>
<td></td>
<td>Spring only</td>
<td>Graded</td>
<td>You may take this course for a maximum of 3 units</td>
<td>Lower Division</td>
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<tr>
<td>ANSC 274</td>
<td>Principles of Dairy Production</td>
<td>3</td>
<td></td>
<td>Fall only</td>
<td>Graded</td>
<td>You may take this course for a maximum of 3 units</td>
<td>Lower Division</td>
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<tr>
<td>ANSC 276</td>
<td>Principles of Meat Science</td>
<td>3</td>
<td></td>
<td>Spring only</td>
<td>Graded</td>
<td>You may take this course for a maximum of 3 units</td>
<td>Lower Division</td>
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<tr>
<td>ANSC 279</td>
<td>Special Problems</td>
<td>1-3</td>
<td>Faculty permission</td>
<td>Fall and spring</td>
<td>Credit/No Credit</td>
<td>You may take this course for a maximum of 6 units</td>
<td>Upper Division</td>
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<tr>
<td>ANSC 301</td>
<td>Intermediate Animal Systems</td>
<td>3</td>
<td>ANSC 101</td>
<td>Fall only</td>
<td>Graded</td>
<td>You may take this course for a maximum of 3 units</td>
<td>Upper Division</td>
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<tr>
<td>ANSC 320</td>
<td>Advanced Livestock Selection and Carcass Evaluation</td>
<td>3</td>
<td></td>
<td>Fall and spring</td>
<td>Graded</td>
<td>You may take this course for a maximum of 6 units</td>
<td>Upper Division</td>
</tr>
<tr>
<td>ANSC 330</td>
<td>Animal Nutrition</td>
<td>3</td>
<td>ANSC 101, ANSC 230</td>
<td>Fall and spring</td>
<td>Graded</td>
<td>You may take this course for a maximum of 3 units</td>
<td>Upper Division</td>
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<tr>
<td>ANSC 330L</td>
<td>Applied Animal Nutrition Research</td>
<td>1</td>
<td>ANSC 101, ANSC 330 (may be taken concurrently)</td>
<td>Fall and spring</td>
<td>Graded</td>
<td>You may take this course for a maximum of 2 units</td>
<td>Upper Division</td>
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</table>
ANSC 340 Reproductive Physiology of Domestic Animals 3 Units
Prerequisite: ANSC 101.
Typically Offered: Fall and spring
The physiological mechanisms of reproduction in domestic animal species. Principles of reproductive anatomy, gamete formation, endocrinology, cyclicity and parturition. The laboratory experience will emphasize theory learned in lecture and will include uses of reproductive technology to maximize reproductive efficiency and fertility. 3 hours lecture. (000467)
Grade Basis: Graded
Repeatability: You may take this course for a maximum of 3 units
Course Attributes: Upper Division

ANSC 350 Meat and the Consumer 3 Units
Typically Offered: Fall only
Muscle growth and composition, nutritional and health concerns, meat safety and advances in product development, preparation and storage. 3 hours laboratory, 2 hours lecture. (000447)
Grade Basis: Graded
Repeatability: You may take this course for a maximum of 3 units
Course Attributes: Upper Division

ANSC 360 Animal Health and Disease 3 Units
Prerequisite: ANSC 101.
Typically Offered: Fall and spring
A study of disease processes in livestock. Principles of disease organisms and the physiology of infection. Mechanisms in which the body combats infections, i.e., immune response. Herd health considerations for disease prevention and treatment. 3 hours lecture. (000466)
Grade Basis: Graded
Repeatability: You may take this course for a maximum of 3 units
Course Attributes: Upper Division

ANSC 370 Livestock and Companion Animal Behavior 3 Units
Prerequisite: ANSC 101.
Typically Offered: Fall only
This course promotes an understanding of basic principles of livestock (i.e., food animals and horses) and companion animal (i.e., dogs and cats) behavior and its application of production, shelter, and household set ups. This course is structured to help students understand the role of animal behavior on welfare and/or productivity of livestock and companion species. This course has an emphasis on how livestock and companion animals communicate with their surroundings and how we can adjust their housing or management to address their needs in order to improve their well-being and/or productivity. 3 hours lecture. (022076)
Grade Basis: Graded
Repeatability: You may take this course for a maximum of 3 units
Course Attributes: Upper Division

ANSC 374 Organic Dairy Production and Management 3 Units
Prerequisite: ANSC 101.
Typically Offered: Spring only
This course covers all scientific aspects of organic dairy production including soil fertility, grazing management, pasture and forage quality, nutritional ration balancing on pasture, enhancing dry matter intake on pasture, holistic herd health (including homeopathy, acupuncture and herbal medicine), organic methods to improve milk quality, organic calf management strategies, and the organic certification process and how to develop your Organic System Plan. The course also covers many new topics of discussion for organic research and development. 3 hours laboratory, 2 hours lecture. (021420)
Grade Basis: Graded
Repeatability: You may take this course for a maximum of 3 units
Course Attributes: Upper Division

ANSC 389 Internship in Animal Science 1-3 Units
Prerequisite: Prior approval of academic goals by the Internship Coordinator.
Typically Offered: Spring, summer, fall
This course is an internship offered for 1.0-3.0 units. You must register directly with a supervising faculty member. Work experience with selected livestock operations is to be completed and supervised by faculty and staff of cooperating livestock ranch. 0 hours independent study. (000472)
Grade Basis: Credit/No Credit
Repeatability: You may take this course for a maximum of 15 units
Course Attributes: Upper Division

ANSC 394 Livestock Grazing Ecology and Management 3 Units
Typically Offered: Fall only
This course examines how herbivores interact with their environment and how understanding of these interactions is applied to the management of grazing animals or the environments they inhabit or both. Emphasis is placed on the scientific basis for grazing management decisions and management designed to accomplish a variety of outcomes. 3 hours laboratory, 2 hours lecture. (022006)
Grade Basis: Graded
Repeatability: You may take this course for a maximum of 3 units
Course Attributes: Upper Division

ANSC 397 Internship 1-3 Units
Typically Offered: Inquire at department
This course is for special topics offered for 1.0 - 3.0 units. Typically the topic is offered on a one-time-only basis and may vary from semester to semester and be different for different sections. See the class schedule for the specific topic being offered. 3 hours seminar. (000473)
Grade Basis: Graded
Repeatability: You may take this course more than once
Course Attributes: Upper Division

ANSC 398 Special Topics 1-3 Units
Typically Offered: Inquire at department
This course is for special topics offered for 1.0 - 3.0 units. Typically the topic is offered on a one-time-only basis and may vary from semester to semester and be different for different sections. See the class schedule for the specific topic being offered. 3 hours seminar. (000473)
Grade Basis: Graded
Repeatability: You may take this course more than once
Course Attributes: Upper Division

ANSC 399 Special Problems 1-3 Units
Prerequisite: Upper-division standing.
Typically Offered: Fall and spring
This course is an independent study of a topic or problem and is offered for 1.0-3.0 units. Students must register with a supervising faculty member. Study/research in animal science under direct supervision of a faculty member. A maximum of 6 units may be applied toward a bachelor's degree in agriculture. 0 hours independent study. (000474)
Grade Basis: Credit/No Credit
Repeatability: You may take this course for a maximum of 6 units
Course Attributes: Upper Division
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>ANSC 440</td>
<td>Physiology of Domestic Animals</td>
<td>3</td>
<td>ANSC 101, CHEM 107. Recommended: CHEM 108.</td>
<td>Fall and spring</td>
<td>Graded</td>
<td>You may take this course for a maximum of 3 units</td>
<td>Upper Division</td>
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<tr>
<td>ANSC 450</td>
<td>Food Sanitation and Quality Control</td>
<td>3</td>
<td>ANSC 101; CHEM 107 or CHEM 111.</td>
<td>Spring only</td>
<td>Graded</td>
<td>You may take this course for a maximum of 3 units</td>
<td>Upper Division</td>
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<tr>
<td>ANSC 470</td>
<td>Animal Welfare</td>
<td>3</td>
<td>ANSC 360, ANSC 370 or instructor approval.</td>
<td>Spring only</td>
<td>Graded</td>
<td>You may take this course for a maximum of 3 units</td>
<td>Upper Division</td>
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<tr>
<td>ANSC 471</td>
<td>Advanced Beef Cattle Management and Production</td>
<td>3</td>
<td>ANSC 101, ANSC 271 or faculty permission.</td>
<td>Spring only</td>
<td>Graded</td>
<td>You may take this course for a maximum of 3 units</td>
<td>Upper Division</td>
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<tr>
<td>ANSC 474</td>
<td>Dairy Production and Management</td>
<td>3</td>
<td>ANSC 101.</td>
<td>Spring only</td>
<td>Graded</td>
<td>You may take this course for a maximum of 3 units</td>
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<td>ANSC 489</td>
<td>Internship in Animal Science</td>
<td>1-3</td>
<td></td>
<td>Fall and spring</td>
<td>Graded</td>
<td>You may take this course for a maximum of 15 units</td>
<td>Upper Division</td>
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<tr>
<td>ANSC 498</td>
<td>Special Topics</td>
<td>1-3</td>
<td>Department permission.</td>
<td>Fall and spring</td>
<td>Graded</td>
<td>You may take this course more than once</td>
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<tr>
<td>ANSC 499</td>
<td>Special Problems</td>
<td>1-3</td>
<td>Faculty permission.</td>
<td>Fall and spring</td>
<td>Credit/No Credit</td>
<td>You may take this course for a maximum of 6 units</td>
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<tr>
<td>ANSC 499H</td>
<td>Honors Research in Animal Science</td>
<td>6</td>
<td></td>
<td>Inquire at department</td>
<td>Graded</td>
<td>You may take this course for a maximum of 6 units</td>
<td>Upper Division</td>
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<tr>
<td>ANSC 499H</td>
<td>Honors Research in Animal Science</td>
<td>6</td>
<td></td>
<td></td>
<td>Graded</td>
<td>You may take this course for a maximum of 6 units</td>
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