ANSC-ANIMAL SCIENCE

ANSC 1110. Animal Science Careers
1 Credit (1)
Introduction to scientific disciplines and career options in animal-agriculture career skill development, including resume preparation, networking, importance of internships, and leadership experiences in animal agriculture.
Learning Outcomes
1. Increasing the understanding of career opportunities in animal agriculture.
2. Gain a broad experience in the development of creative thinking about the career choices available in animal agriculture.
3. Apply the increased knowledge of career development in the career path and internship directions for each student.
4. Gain leadership experience that will be impactful for the student in their pursuit of a career in animal agriculture.

ANSC 1120. Introduction to Animal Science
3 Credits (3)
This course is designed to provide an introduction to nutrients and their function in livestock animals. Basic feed identification, evaluation, and diet formulation will be discussed. The anatomy of the digestive tract of animals and their ability to utilize feedstuffs is presented. Classification, digestion, absorption, transport and metabolism of major nutrients required by animals are studied
Learning Outcomes
1. Identify conventional and non-conventional feedstuffs that are fed to livestock animals.
2. Describe various methods for feed processing and storage.
3. Assess the nutritional value of a ration or feed ingredients.
4. Interpret the NRC (Nutrient Requirement Council) guidelines for feeding livestock.
5. List the basic digestive anatomy for all classes of livestock.
6. Describe nutritional deficiencies and digestive disorders common to livestock animals

ANSC 1120H. Introduction to Animal Science Honors
3 Credits (3)
This course is designed to provide an introduction to nutrients and their function in livestock animals. Basic feed identification, evaluation, and diet formulation will be discussed. The anatomy of the digestive tract of animals and their ability to utilize feedstuffs is presented. Classification, digestion, absorption, transport and metabolism of major nutrients required by animals are studied. Additional course work will be required. Restricted to Las Cruces campus only.
Prerequisite(s): Eligibility for membership in honors college.
Learning Outcomes
1. Identify conventional and non-conventional feedstuffs that are fed to livestock animals.
2. Describe various methods for feed processing and storage.
3. Assess the nutritional value of a ration or feed ingredients.
4. Interpret the NRC (Nutrient Requirement Council) guidelines for feeding livestock.
5. List the basic digestive anatomy for all classes of livestock.
6. Describe nutritional deficiencies and digestive disorders common to livestock animals

ANSC 1120L. Introduction to Animal Science Lab
1 Credit (2P)
Students will observe and participate in activities related to farm animal management and will include areas of livestock selection, nutrition, reproductive physiology, animal ID and animal health. This lab is required for animal science majors.
Prerequisite(s)/Corequisite(s): ANSC 1120.
Learning Outcomes
1. To provide the students with an understanding of the principles, concepts and terminology of today's livestock industry

ANSC 1130. Westerrn Equitation I
2 Credits (4P)
Basic principles of Western riding, including care and management of the riding horse, equitation equipment, and development of riding skills.

ANSC 1140. Introduction to Dairy Science
3 Credits (3)
Introduction to the basic aspects of dairy science and how to apply key concepts to the practical feeding and management of dairy cattle and production of dairy products. Students should also obtain an appreciation for the size and diversity of the dairy industry.
Prerequisite(s)/Corequisite(s): ANSC 1120. Restricted to Las Cruces campus only.
Learning Outcomes
1. Learn key concepts in dairy production and management
2. Be familiar with terms used in production of milk and milk products

ANSC 1160. Introductory Horse Science
3 Credits (2+2P)
The light horse industry; breeds; introduction to feeding, breeding, marketing and management; handling and selecting horses for breeding and performance.
Learning Outcomes
1. Describe and identify breeds of horses, their characteristics and their uses.
2. Demonstrate knowledge of basic physiology of horses by recalling parts of the horse, including bones, muscle, tendons and ligaments. Also, by ageing horses via teeth, body condition scoring and taking vital signs.
3. Demonstrate safe and proper handling of horses.
4. Demonstrate comprehension of basic nutrition and feedstuffs by formulating/correcting diets in clinical and non-clinical situations.
5. Recall aspects of basic reproduction by calculating a stallion book and recalling appropriate procedures for breeding.
6. Create informative articles that seek to educate the lay horse person about a topic covered in class.

ANSC 1170. Introduction to Animal Metabolism
3 Credits (3)
Principles underlying the mechanisms of animal metabolism as they relate to production, maintenance, and health of animals.
Prerequisite: CHEM 1215G.
Learning Outcomes
1. This course provides an introduction to the study of the physiology of life.
2. The first part of the course covers acids and bases and the chemical nature of organic compounds.
3. The second part of the course relates to the chemistry of biomolecules (nutrients) and summarizes the chemical reactions of life (metabolism).

ANSC 1180. Companion Animal in Society
3 Credits (3)
Examination of the historical, current, and potential future roles of companion animals in human society. Topics include animal domestication, breeds, exotic companion animals, the companion animal industry, and competitions and sports involving companion animals. Emphasis is on canine and feline species. May be repeated up to 3 credits. Restricted to Las Cruces campus only.
Learning Outcomes
1. Discuss the theories regarding why, how, and when companion animals became domesticated.
2. Describe how selective breeding has optimized certain physiological and behavioral traits of companion
3. animals in order to fulfill the needs of individual people and society.
4. Explain the concept of human-companion animal interaction (HAI) and the influence this bond has on human behavior, health, society, and government policy/laws.
5. Understand the breadth and economic impact of the rapidly expanding companion animal industry and the recent expenditure trends of pet owners.
6. Discuss the past and present uses of companion animals and theorize regarding the future uses of companion animals in society
7. Be effective in searching for, and critically evaluating, scientific based resources.

ANSC 2120. Equine Management
3 Credits (3)
Introduction and application of the business skills necessary to effectively manage the equine operation. Students will learn how to use strategic thinking and sound business management practices to succeed in the demanding equine industry.
Prerequisite: ANSC 1160.
Learning Outcomes
1. Develop a working knowledge of the business principles needed to operate a successful entrepreneurial enterprise.
2. Increase the awareness of the need for business principles in the aggregate function of an equine operation.
3. Gain a greater perspective of accounting, economic and financial principles in an equine business operation.

ANSC 2130. Western Equitation II
2 Credits (4P)
Intermediate principles of Western riding, including reading horse behavior, limbering-up exercises, and developing riding skills. Introduction to rollbacks, turnarounds and stops.
Prerequisite: consent of instructor.
Learning Outcomes
1. Increasing the understanding of the student relative to equitation practices
2. Increase the students' ability to apply principles of Western Equitation to applied settings across a broad spectrum of outlets
3. Prepare the student to engage equine in a professional manner

ANSC 2140. Introduction to Companion Animal Science
3 Credits (3)
Introduction to the care of common companion animal species. Species specific housing and nutrition are covered in the context of maximizing animal health and well-being and reducing disease. May be repeated up to 3 credits.
Learning Outcomes
1. Accurately use scientific terminology common to the companion animal discipline.
2. Compare and contrast the physiological similarities and differences between the various companion animal species studied in class.
3. Create dietary plans based on the nutritional needs of different companion animal species to optimize animal health and lifespan.
4. Identify symptoms of disease/injury at the early stages of illness in order to obtain Veterinary care and treatment as quickly as possible.
5. Design and construct species specific cages/vivariums to maximize animal well- being and health.
6. Educate others regarding providing the best possible care for a variety of companion animal species.

ANSC 2150. Management of Equine Operations
3 Credits (3)
Introduction and application of business skills necessary to effectively manage the equine operation. Students will learn how to use strategic thinking and sound business management practices to succeed in the demanding equine industry.
Prerequisite(s): ANSC 1160.
Learning Outcomes
1. Acquire a working knowledge of different sectors of the equine industry, including business practices, management and marketing skills.

ANSC 2310. Introduction to Meat Science
3 Credits (2+3P)
Fundamental aspects of the red meat industry. Lecture topics and laboratory exercises include the nutrient value of meat, meat preservation, meat safety, muscle structure and contraction, slaughter and processing of beef, lamb and pork, sausage manufacture, meat curing, meat cookery, and muscle and bone anatomy.
Learning Outcomes
1. Increasing the understanding of meat science applications across animal agriculture.
2. Increase the students' ability to apply principles of production to the industry perspective.
3. Apply the increased knowledge of meat science in a global situation.
4. Gain an understanding of the components involved in the development and processing of the red meat industry.

ANSC 2330. Animal Production
3 Credits (2+2P)
Production and utilization of beef cattle, sheep, and swine; emphasis on feeding, breeding, management problems and marketing; selection of animals for breeding and market

Learning Outcomes

1. Increasing the understanding of meat animal production.
2. Increase the students' ability to apply principles of production to the industry perspective.
3. Apply the increased knowledge of meat animal production to global situations.
4. Gain a broader understanding of the importance of meat animals in the global food system.

ANSC 2340. Genetics in Animal Science
3 Credits (3)
Introduction to genetics and inheritance relative to livestock production. Introduction to procedures for collection and use of performance information in livestock improvement programs.
Prerequisites: BIOL 2610G.

Learning Outcomes

1. Gain a broader understanding of the role genetic impacts in the livestock industry.
2. Employ an increased knowledge of impact of genetics in the food animal industry and the production
3. and economic principles that apply.
4. Recognition of the global impacts of genetics in the food animal industry in a global setting.

ANSC 2996. Special Topics
1-4 Credits
Specific subjects and credits to be announced in the Schedule of Classes. Maximum of 4 credits per semester. No more than 9 credits toward a degree.

Learning Outcomes

1. Varies

ANSC 301. Animal and Carcass Evaluation
3 Credits (2+2P)
Determination of the market value of meat animals by relating live animal and carcass traits. Topics include the identification of economically important traits, grading, growth and development, wholesale and retail pricing, and futures and options markets.

ANSC 303. Livestock, Meat and Wool Evaluation
4 Credits (3+2P)
Selection, classification, grading, and judging of livestock, meat, and wool.

ANSC 304. Feeds and Feeding
3 Credits (2+2P)
Digestibility of feeds, their nutritive values, grades, and classes, principles of ration formulation and computer ration formulations, and practical feeding of farm animals. Prerequisite(s): CHEM 1215G

ANSC 305. Principles of Genetics
3 Credits (3)
Covers fundamental principles of reproduction, variation, and heredity in plants and animals. May be repeated up to 3 credits.
Prerequisite: (BIOL 2610G, BIOL 2110G and either CHEM 1215G or CHEM 1216).

Learning Outcomes

1. To provide an introduction to the basic concepts, methods, and terminology of genetics. Introduction to genomics and bioinformatics. To develop a working understanding of genetics and heredity To understand in some depth, the mechanism of DNA replication, transcription and protein synthesis. To understand the regulation of gene expression. To examine the impact of genetics on both basic and applied aspects of the biological sciences, as well as its effects on our everyday lives.

ANSC 308. Horse Evaluation
4 Credits (2+4P)
Students will acquire a working knowledge of selection and classification of horses, learn criteria for evaluation and selection of breeding and show animals, gain a broad understanding of judging conformation and performance in the horse, and learn effective oral and written communication skills through defense of class placings. This course is considered an introduction to the NMSU Horse Judging Team.

ANSC 310. Exhibiting Livestock
3 Credits (1+4P)
Fitting and showing beef cattle, dairy cattle, sheep and swine.

ANSC 312V. Companion Animals and the Human- Animal Interaction
3 Credits (3)
The science behind human-animal interactions (HAI). An examination of the interactions between humans and companion animals and the effects on human and animal health and wellness. Cultural differences in HAI will be explored. Topics will include Animal Assisted Activity (AAA), Animal Assisted Therapy (AAT), and service animals. Emerging and future uses of companion animals in HAI will be discussed.

ANSC 320. Equine Behavior and Training
3 Credits (6P)
Basic principles, methods and philosophies of handling, breaking and training the two-year-old Western horse. May be repeated up to 6 credits.
Prerequisite(s): ANSC 2130 or consent of instructor.

ANSC 321. Advanced Equine Behavior and Training
3 Credits (6P)
Continuation of ANSC 320. Further development of skills required to advance the training of the two-year-old Western horse. Emphasis will be placed on lateral work, lead changes, turn-arounds, obstacles, and making the horse accustomed to ranch and trail riding situations.
Prerequisite(s): ANSC 320 or consent of instructor.

ANSC 350. Special Topics
1-4 Credits
Specific subjects and credits to be announced in the Schedule of Classes. Maximum of 4 credits per semester. No more than 9 credits toward a degree.

ANSC 351V. Agricultural Animals of the World
3 Credits (3)
Global study of the development and use of animals for production of food and nonfood products. Climatic, cultural, and economic influences on systems of livestock production and species and breeds of livestock utilized will be evaluated.

ANSC 370. Anatomy and Physiology of Farm Animals
4 Credits (3+2P)
Structure and function of the animal body. Includes studies of the horse, cow, sheep, pig, and comparisons with the human body.
Prerequisite(s): CHEM 1215G and BIOL 2610G or BIOL 2110G.

ANSC 383. Equine Reproductive Management
3 Credits (1+4P)
Anatomy, physiology, and endocrinology of reproduction of the mare and stallion; training in modern reproductive techniques employed in the horse industry.
Prerequisites: ANSC 1160, ANSC 2150, and ANSC 370.

ANSC 390. Internship
1-3 Credits
Professional work experience under the joint supervision of the employer and a faculty member. A written report is required. No more than 3 credits toward a degree. Graded S/U.
Prerequisite: consent of instructor.

ANSC 391. Undergraduate Research Experience
1-3 Credits (1-3)
Formal laboratory, library, or field study of problems related to animal sciences, emphasizing hypothesis development, testing, and reporting results. Projects are preplanned, reviewed, and approved. Students submit periodic written reports and final written and oral reports. May be repeated for a maximum of three credits. Consent of Instructor required.

ANSC 392. Animal Sciences Teaching/Extension Experience
1-3 Credits (1-3)
: Formal teaching experience related to animal sciences supervised by a faculty member. May involve classroom instruction, educational material development, and/or student evaluation and assessment. Students may also be involved in development, implementation, or assessment of adult or youth educational programs related to animal sciences, supervised by a faculty member. Students submit periodic written reports and a final written and oral report. May be repeated for a maximum of three credits. Consent of Instructor required.

ANSC 402. Animal Science Seminar
1 Credit (1)
A seminar course designed to inform students of the career opportunities, develop their interviewing and other interpersonal skills may also include reading, discussions, written reports, and seminar presentations of current relevant literature.

ANSC 402 H. Animal Science Seminar
1 Credit (1)
Taught with ANSC 402 with additional work.
Prerequisite(s): Meets Honors eligibility and/or Crimson Scholar status.

ANSC 411. Canine and Feline Behavior and Training
3 Credits (3)
The influence of domestication, breeds, genetics, and physiology on the behavior of canine and feline species. Training methods and modification of problem behaviors are examined. The impact of the pet parent on their animal's behavior is addressed. May be repeated up to 3 credits.
Prerequisite(s): Junior or Senior status or consent of the instructor.

ANSC 412. Canine and Feline Health and Diseases
3 Credits (3)
A review of common infectious and non-infectious diseases and the basics of the immune response. Pathophysiology and treatment of these diseases and the role the pet parent plays in pre-disposing their animals to disease. May be repeated up to 3 credits.
Prerequisite(s): ANSC 2140 or consent of instructor.

ANSC 421. Physiology of Reproduction
4 Credits (3+2P)
Fertility and the role of hormones, nutrition, selection, management and environment in the maintenance of high reproductive rate.
Prerequisite(s): ANSC 370.

ANSC 422. Animal Nutrition
3 Credits (3)
Nutrient utilization and measurement and nutrient requirements for the various body functions.
Prerequisite(s): CHEM 2115 or CHEM 313 or ANSC 1170.

ANSC 423. Animal Breeding
3 Credits (2+2P)
Mating systems, and selection procedures; calculation of inbreeding coefficients, genetic relationships, and gene frequency.
Prerequisite(s): ANSC 2340 or 305.

ANSC 424. Swine Production
3 Credits (2+2P)
Breeding, feeding, and care of swine.
Prerequisite(s): ANSC 304.

ANSC 425. Horse Science and Management
3 Credits (2+2P)
Senior level course requiring students to apply basic knowledge acquired in the previous courses to solve typical problems encountered in the horse industry. Specific topics include genetics and animal breeding, business and legal issues, reproduction, health, nutrition and exercise physiology.
Prerequisite(s): ANSC 304 and ANSC 370 or concurrent registration.

ANSC 426. Beef Production: Cow-Calf Management
3 Credits (2+2P)
Senior level course examining management practices for the cow-calf producers. Specifically focusing on nutrition, reproduction, genetics, marketing, and health. May be repeated up to 3 credits.
Prerequisite(s): ANSC 304 and (ANSC 2340 or ANSC 305) or concurrent registration.

ANSC 427. Dairy Production
3 Credits (2+2P)
Breeding, nutrition, physiology and management of dairy cattle.
Prerequisite(s): ANSC 304 and (ANSC 2340 or ANSC 305) or concurrent registration.

ANSC 428. Sheep and Wool Production
3 Credits (2+2P)
Genetics, nutrition, physiology and management of sheep. Wool grading, shearing, and disease control.
Prerequisite(s): ANSC 304 and junior status.

ANSC 429. Beef Production: Feedlot Management
3 Credits (2P)
Senior level course in feedlot management of beef cattle. Topics of interest include cattle handling and processing, health and nutrition, intake management, and growth. Feed mill operation, marketing strategies, and regulatory concerns associated with finishing cattle production may also be discussed.
Prerequisite(s): ANSC 304 or Consent of Instructor.

ANSC 448. Problems
1-4 Credits
Individual investigation in a specific area of animal science. Maximum of 4 credits per semester. No more than 6 credits toward a degree. Consent of Instructor required.

ANSC 458. Livestock Behavior, Welfare and Handling
3 Credits (2+3P)
Principles of animal behavior and evaluation of management practices on animal welfare in confined and rangeland livestock operations. Low stress livestock handling techniques. Design of livestock handling facilities. Crosslisted with: RGSC 458
Prerequisite(s): RGSC 2110 or ANSC 1120.

ANSC 462. Parasitology
3 Credits (3)
Same as EPWS 462.

ANSC 468. Advanced Dairy Herd Management
3 Credits (3)
The course is offered through the Southern Great Plains Dairy Consortium in Clovis, NM, and will include breeding, nutrition, physiology, health and management of large herd dairies of the Southwest. Students must apply for the course through the Consortium, and can take it more than once, as topics vary. Consent of instructor required.
Prerequisite(s): ANSC 304.

ANSC 480. Environmental Physiology of Domestic Animals
3 Credits (3)
Influence of environmental factors on physiological processes of domestic animals.
Prerequisite: ANSC 370.

ANSC 484. Ruminant Nutrition
3 Credits (3)
Energy, nitrogen, and mineral nutrition of ruminants with special emphasis on digestive physiology and metabolism of nonprotein nitrogen compounds.
Prerequisite: ANSC 422.

ANSC 488. Equine Nutrition and Exercise Physiology
3 Credits (2+2P)
Students will gain an in-depth understanding of nutrition and exercise physiology in the horse. Students will investigate the response of major physiological systems to exercise, conditioning and training, gastrointestinal physiology, nutrition requirements and clinical nutrition of the horse. Students must have Junior standing or higher to enroll in this course.

ANSC 501. Advanced Animal Nutrition (so)
3 Credits (3)
Emphasis on digestive physiology and metabolism. Basic mechanisms involved in the intake, digestion, and absorption of nutrients studied.
Prerequisite(s): CHEM 2115 or consent of instructor.

ANSC 504. Animal Physiology Techniques (se)
4 Credits (4)
Radioimmunoassay procedures. Methods and procedures for conducting reproductive physiology research in livestock. Includes animal preparation, sample collection, laboratory and cell culture procedures.
Prerequisite: consent of instructor.

ANSC 507. Laboratory Techniques in Nutrition (f)
4 Credits (2+6P)
Methodology and experimental procedures in measuring nutrient requirements and value of diets.
Prerequisites: ANSC 422 or consent of instructor.

ANSC 509. Endocrinology of Domestic Animals (f)
3 Credits (3)
The role of hormones in growth, development, metabolism, temperature regulation, lactation, and reproduction of domestic animals, including commercial applications.

ANSC 510. Range Nutrition Techniques (se)
3 Credits (3)
Animal and plant methods of determining quantity and quality of range forage. Same as RGSC 510.
Prerequisite: ANSC 484 or consent of instructor.

ANSC 512. Research Methods in Animal Science (s)
4 Credits (3+2P)
Procedures used in animal science research, including planning and conduct of investigations and interpretation of results.

ANSC 515. Graduate Seminar
1 Credit (1)
Current topics.

ANSC 520. Advanced Nutritional Management I: Feedlot (se)
3 Credits (3)
Emphasis on feeding systems for beef cattle from weaning to slaughter. Primary focus on feedlot nutrition and management.
Prerequisite: ANSC 484 or consent of instructor.

ANSC 521. Advanced Nutritional Management II: Cow Calf/Stocker (so)
3 Credits (3)
Emphasis on nutritional management for cow-calf and stocker operations. Primary focus on applications to range animal nutrition and management.
Prerequisite: ANSC 484 or consent of instructor.

ANSC 522. Animal Nutrition (f)
3 Credits (3)
Nutrient utilization and measurement; nutrient requirements for the various body functions. Taught with ANSC 422 with additional requirements for graduate students. Recommended for nonmajors.
Prerequisite(s): CHEM 2115.

ANSC 560. Rumen Microbiology (so)
3 Credits (3)
Issues in ruminal and gastrointestinal microbiology. Includes physiological and genetic mechanisms in carbohydrate and nitrogen utilization. Same as FSTE 560.
Prerequisites: ANSC 501.

ANSC 580. Environmental Physiology of Domestic Animals
3 Credits (3)
Influence of environmental factors on physiological processes of domestic animals. Specific focus on fetal and developmental programming, heat and cold stress.

ANSC 598. Special Research Programs
1-4 Credits (1-4)
Individual investigations, either analytical or experimental. Maximum of 4 credits per semester. No more than 6 credits toward a degree. Consent of Instructor required.

ANSC 599. Master's Thesis
1-15 Credits (1-15)
Thesis. Consent of Instructor required. Thesis/Dissertation Grading. May be repeated up to 88 credits.
Learning Outcomes
1. Various

ANSC 600. Research
1-15 Credits
This course is for Ph.D. students before they have completed qualifiers. Consent of Instructor required. Thesis/Dissertation Grading.
Prerequisite(s): ANSC 421 or consent of instructor.

ANSC 602. Advanced Reproductive Physiology (fo)
3 Credits (3)
Mechanisms of reproductive function; research methodology.
Prerequisite(s): ANSC 421 or consent of instructor.

ANSC 602 L. Molecular Techniques in Reproductive Physiology (fo)
2 Credits (4P)
Molecular biology techniques used in the study of reproductive physiology in domestic animals. Extraction of RNA, DNA from endocrine tissues, northern analysis, culture of pituitary/ovarian tissue. Mechanisms of hormone action.
Prerequisite: consent of instructor.

ANSC 604. Hypothalamo-Hypophyseal-Pineal Endocrinology (fe)
1 Credit (1)
Hormones and other neurochemicals synthesized and secreted by the hypothalamus, pituitary, and pineal glands. Neuroendocrinology of the hypothalamo-hypophyseal axis.
Prerequisite: ANSC 509.

ANSC 605. Gonadal and Uterine Endocrinology (fe)
1 Credit (1)
Endocrinology of mammalian ovaries, testes, and uteri including developing trophoblasts.
Prerequisite: ANSC 509.

ANSC 606. Endocrinology of Pregnancy, Parturition, and Lactation (fe)
1 Credit (1)
Hormones and other chemical messengers involved in maintenance of pregnancy, control of parturition, and initiation and maintenance of lactation in farm animals.
Prerequisite: ANSC 509.

ANSC 621. Metabolic Functions and Dysfunctions (fe)
3 Credits (3)
Physiological chemistry of ruminants and other domestic animals, with attention to metabolic dysfunctions and nutritional toxicology.
Prerequisites: CHEM 345 and ANSC 501.

ANSC 625. Nutrient Metabolism I: Mineral, Vitamin, and Nitrogen Metabolism (fo)
4 Credits (4)
Cellular metabolism, physiological function(s), toxicities, and deficiencies of minerals, vitamins and nitrogen in ruminants and nonruminants.
Prerequisite: ANSC 501.

ANSC 626. Nutrient Metabolism II: Carbohydrates, Lipids, and Energetics (se)
4 Credits (4)
Basic principles of carbohydrate, lipid, and energy metabolism; integration of metabolism with emphasis on nutritional and biochemical processes related to efficiency of nutrient use.
Prerequisite: ANSC 501.

ANSC 698. Special Research Programs
1-4 Credits
Advanced individual investigations, either analytical or experimental. Maximum of 4 credits per semester. No more than 6 credits toward a degree. Consent of Instructor required.

ANSC 700. Doctoral Dissertation
15 Credits
Dissertation. Consent of Instructor required. Thesis/Dissertation Grading.