Independent Study
Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. RB: (AMS 265 or AMS 210) and (AMS 280 or 250) and (HST 202 or HST 203) R: Approval of department.
Special projects, directed reading, and research arranged by an individual student and a faculty member in areas supplementing regular course offerings.

Topics in American Studies
Spring. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. P:M: (AMS 210 or AMS 265) and (AMS 280 or AMS 250) Completion of Tier I writing requirement.
Significant theoretical, methodological and bibliographical issues in American studies. Techniques for analyzing cultural texts such as literature, film, paintings, photographs, music and architecture.

Technology and Culture
Fall. 4(4-0) Interdepartmental with Lyman Briggs School. Administered by Lyman Briggs School. P:M: Completion of Tier I writing requirement. R: Open only to juniors or seniors in the American Studies major in Lyman Briggs School.
History of technology with special emphasis on the interaction of technical innovation and other elements of culture.

The Natural Environment: Perceptions and Practices
Spring. 4(4-0) Interdepartmental with Lyman Briggs School. Administered by Lyman Briggs School. P:M: Completion of Tier I writing requirement. R: Open only to sophomores or juniors or seniors in the American Studies major or in Lyman Briggs School.
American attitudes toward the natural environment and related public and private institutions.

American Art through 1875
Spring of even years. 3(3-0) Interdepartmental with History of Art. Administered by Department of Art and Art History. P:M: (HA 120 or HA 121 or HA 250) and completion of Tier I writing requirement. SA: HA 438
Artistic production in North America from colonial times to 1875 in its cultural context.

American Art, 1875-1940
Fall of even years. 3(3-0) Interdepartmental with History of Art. Administered by Department of Art and Art History. P:M: (HA 120 or HA 121 or HA 250) and completion of Tier I writing requirement. SA: HA 458, HA 358
Artistic production in North America from 1875 to 1940, in its cultural context.

Seminar in American Material Folk Culture
Spring of odd years. 3(3-0) RB: Coursework in arts, humanities and cultural studies. Understanding American material folk culture and folklife as sources for analysis and appreciation. Methodological approaches and fieldwork techniques.

Seminar in American Studies
Spring. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. RB: (AMS 265 or AMS 210) and (AMS 280 or AMS 250) and (AMS 310 and ENG 481 and HST 480 and HST 202 and HST 203) R: Open only to American Studies majors.
Selected topics in American studies emphasizing interdisciplinary approaches. Topics vary.

Seminar in American Art
Spring of odd years. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. Interdepartmental with History of Art. Administered by Department of Art and Art History. R: Approval of department.
Intensive investigation of a topic in the history of American art.

American Studies Theory, Methods, and Bibliography
Fall. 3(3-0) Methods and bibliographical sources of American Studies research. Interdisciplinary approaches to studying American culture.

Independent Study
Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 12 credits in all enrollments for this course. R: Approval of department.
Special projects, directed reading, and research arranged by an individual graduate student and a faculty member in areas supplementing regular course offerings.

Special Topics in American Studies
Fall, Spring, Summer. 3(3-0) A student may earn a maximum of 12 credits in all enrollments for this course. Special topics supplementing regular course offerings proposed by faculty for graduate students on a group study basis.

Master's Thesis Research
Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Approval of college.
Directed research leading to a master's thesis in partial fulfillment of Plan A master's degree requirements.

Doctoral Dissertation Research
Fall, Spring, Summer. 1 to 12 credits. A student may earn a maximum of 99 credits in all enrollments for this course. R: Approval of college.
Doctoral dissertation research.
Human Anatomy—ANTR

535  Cell Biology and Physiology II  Spring; 4 credits. Interdepartmental with Physiology; Biochemistry and Molecular Biology. Administered by Department of Physiology. R: Open only to graduate-professional students in the College of Human Medicine or the College of Osteopathic Medicine. Modern concepts of cell biology as a basis for understanding the physiology of human tissues and organ systems in health and disease. Continuation of PSL 534.

551  Medical Gross Anatomy  Fall. 6(4-6) R: Open only to graduate-professional students in the College of Human Medicine or College of Osteopathic Medicine or approval of department. SA: ANT 551 Human regional gross anatomy with clinical correlations using dissections, cross-sections, medical imaging, multimedia and hypermedia.

552  Medical Neuroscience  Spring. 4(3-2) Interdepartmental with Neurology and Ophthalmology; Physiology; Radiology. Administered by Department of Neurology and Ophthalmology. R: Graduate-professional students in the Colleges of Human Medicine and Osteopathic Medicine. SA: ANT 552 Correlation of normal structure and function of the human nervous system with clinical testing, classical lesions, and common diseases.

562  Medical Histology  Spring. 3(2-2) R: Graduate-professional students in colleges of Human Medicine and Osteopathic Medicine. SA: ANT 562 Histology of the human body.

585  Directed Study in Human Prosection  Fall, Spring, Summer. 1 to 5 credits. A student may earn a maximum of 15 credits in all enrollments for this course. P:M: (ANTR 551) R: Open only to graduate-professional students in the College of Human Medicine or College of Osteopathic Medicine and approval of department. Prosection of selected regions and isolated structures of preserved human cadavers. Oral presentation.

820  Advanced Neuroanatomy  Summer of odd years. 1 to 5 credits. A student may earn a maximum of 12 credits in all enrollments for this course. Interdepartmental with Neuroscience. Administered by Program in Neuroscience. R: Approval of department. Current topics in anatomy and physiology processes of central nervous system cells.

839  Systems Neuroscience  Spring. 4(4-0) Interdepartmental with Neuroscience; Pharmacology and Toxicology; Physiology; Psychology; Zoology. Administered by Program in Neuroscience. R: Open only to graduate students in the Colleges of Human Medicine, Osteopathic Medicine, Agricultural and Natural Resources, Natural Science, Social Science, and Veterinary Medicine. SA: ANT 839 Anatomy, pharmacology, and physiology of multicellular neural systems. Sensory, motor, autonomic, and chemo-regulatory systems in vertebrate brains.

885  Vertebrate Neural Systems  Spring of odd years. 3(2-2) Interdepartmental with Neurosciences; Physiology. Administered by Program in Neuroscience. SA: ANT 885 Comparative analysis of major component systems of vertebrate brains. Evolution, ontogeny, structure, and function in fish, amphibians, reptiles, birds and mammals.

VETERINARY ANATOMY ANTV

Department of Pathobiology and Diagnostic Investigation College of Veterinary Medicine

515  Comparative Veterinary Gross Anatomy  Fall. 6(2-10) R: Open only to graduate-professional students in the College of Veterinary Medicine. SA: ANT 515 Canine anatomy. Comparisons with ruminant, porcine, and equine anatomy.

516  Veterinary Histology and Cell Biology  Fall. 4(3-2) R: Open only to graduate-professional students in the College of Veterinary Medicine. SA: ANT 516 Principles of developmental, cellular, and molecular biology as related to veterinary medicine.

517  Veterinary Neuroanatomy  Spring. 1(1-0) R: Completion of Semester 1 of the graduate-professional program in the College of Veterinary Medicine. SA: ANT 517 Introduction to the anatomy of the nervous system using the canine species as a model.

610  Veterinary Gross Anatomy Dissection  Spring. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: (ANTV 515) R: Open only to graduate-professional students in College of Veterinary Medicine. SA: ANT 610 Dissection and protection of selected regions of domestic animals.

611  Research Problems in Veterinary Anatomy  Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Open only to graduate-professional students in the College of Veterinary Medicine. Approval of department. SA: ANT 611 Veterinary gross anatomy, cell biology, histology, or neurobiology.

ANIMAL SCIENCE ANS

Department of Animal Science College of Agriculture and Natural Resources


140  Fundamentals of Horsemanship  Spring. 2(0-4) A student may earn a maximum of 4 credits in all enrollments for this course. Safe horse handling skills. Riding skills. Riding aids and working with the horse at the beginner, intermediate or advanced level.

141  Draft Horse Basics  Fall. Spring. 2(0-4) Safe handling, hitching and driving of draft horses. Care and maintenance of harness and horse drawn equipment.

142  Horse Training for Competition  Summer. 2(0-4) R: ANS 140) R: Approval of department. Training techniques to prepare horses for competition. Exhibiting horses. Field trips required.

200A Introductory Judging of Livestock or Carcasses  Spring. 1 to 2 credits. A student may earn a maximum of 3 credits in all enrollments for this course. RB: (ANS 211) R: A student may earn a maximum of 8 credits from ANS 200A, ANS 200B, ANS 200C, ANS 200D, ANS 300A, ANS 300B, ANS 300C and ANS 300D. Evaluation of functional conformation of beef cattle, sheep and swine and their carcasses. Preparation for intercollegiate competition. Field trips required.

200C Introductory Judging of Dairy Cattle  Spring. 1 to 2 credits. A student may earn a maximum of 3 credits in all enrollments for this course. R: A student may earn a maximum of 8 credits from the following courses: ANS 200A, ANS 200B, ANS 200C, ANS 200D, ANS 300A, ANS 300B, ANS 300C and ANS 300D. SA: ANS 200B Evaluation of functional conformation of dairy cattle. Preparation for intercollegiate competition. Field trips required.


210 Animal Products  Fall. 4(3-3) R: Not open to freshmen. Edible animal products. Processing, preservation, storage and distribution of dairy, meat, and egg products.