495. Writing: Major Topics in American Thought
Fall, Spring, 4(4-0) P: Designated score on English placement test. Not open to students with credit in MC 111 or MC 112 or LB 133 or AL 192 or AL 192H or ATL 110 or ATL 115, ATL 120 or ATL 125 or ATL 130 or ATL 135 or ATL 140 or ATL 145 or ATL 150.
Drafting, revising, and editing compositions derived from readings on major topics in American thought to develop advanced skills in narration, persuasion, analysis, and documentation.

290. Independent Study
Fall, Spring, Summer. 1 to 4 credits. R: Open only to freshmen or sophomores. Approval of department.
Special projects arranged by an individual student and a faculty member in areas supplementing regular course offerings.

ANATOMY  ANT

Department of Anatomy
College of Human Medicine
College of Osteopathic Medicine
College of Veterinary Medicine

316. General Human Anatomy
Spring. 3(3-0) P: BS 110 or BS 111 or approval of department.
Human structure. Major systems of the human body.

480. Special Problems in Anatomy
Fall, Spring, Summer. 1 to 5 credits. A student may earn a maximum of 15 credits in all enrollments for this course. R: Approval of department.
Topics from an anatomical field such as gross anatomy, histology, tissue culture, cytology, neurology, or embryology.

515. Comparative Veterinary Gross Anatomy
Fall. 6(3-0) R: Open only to graduate-professional students in the College of Veterinary Medicine.
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.
Principles of developmental, cellular, and molecular biology as related to veterinary medicine.

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

551. Medical Gross Anatomy
Fall. 6(4-6) R: Graduate-professional students in colleges of Human Medicine and Osteopathic Medicine.
Gross anatomy of the human body using projections, medical imaging, clinical correlations, case studies, video tapes, and computer aided instruction.

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

601. Veterinary Gross Anatomy Dissection
Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. P: ANT 551. R: Open only to graduate-professional students in colleges of Human Medicine and Osteopathic Medicine.
Dissection and prospection of selected regions of domestic animals.

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: Open only to graduate-professional students in the College of Veterinary Medicine. Approval of department.
Veterinary gross anatomy, cell biology, histology, or neurobiology.

802. Clinical Surgical Anatomy
Spring. 4(2-4) Interdepartmental with Surgery. Administered by Surgery. R: Open only to Master’s students in Surgery.

813. Problems in Anatomy
Fall, Spring, Summer. 1 to 5 credits. A student may earn a maximum of 5 credits in all enrollments for this course. R: Approval of department.
Fields such as gross anatomy, histology, tissue culture, cytology, neurology and embryology.

814. Graduate Seminar
Spring of even years. 1 to 3 credits. R: Open only to graduate students in Anatomy.
Supervised practice in evaluating abstracts and delivering oral presentations of anatomical sciences. Organization, timing and effective illustrations.

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. R: Approval of department.
Current topics in anatomy and physiology and processes of central nervous system cells.

859. Systems Neuroscience
Spring of odd years. 4(4-0) Interdepartmental with Pharmacology and Toxicology, and Physiology. R: Open only to graduate students in the Colleges of Human Medicine, Osteopathic Medicine, Agriculture and Natural Resources, Natural Science, and Veterinary Medicine.
Anatomy, pharmacology, and physiology of multi-cellular 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 Physiology.
Comparative analysis of major component systems of vertebrate brains. Evolution, ontogeny, structure, and function in fish, amphibians, reptiles, birds and mammals.

900. Master’s Thesis Research
Fall, Spring, Summer. 1 to 8 credits. A student may earn a maximum of 12 credits in all enrollments for this course. R: Open only to graduate students in Anatomy.

999. Doctoral Dissertation Research
Fall, Spring, Summer. 1 to 24 credits. A student may earn a maximum of 36 credits in all enrollments for this course. R: Open only to graduate students in Anatomy.

ANIMAL SCIENCE  ANS

Department of Animal Science
College of Agriculture and Natural Resources

110. Introductory Animal Agriculture
Fall, Spring. 4(3-2)
History of animal agriculture and its relationship to human needs, production systems, marketing, and environmental considerations. Current goals of and limitations affecting U.S. farm animal production.
SA: ANS 112

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. P: ANS 211. R: A student may earn a maximum of 8 credits from ANS 200A, ANS 200B, ANS 300A, ANS 300B, ANS 300C and ANS 300D.

200B. Introductory Judging of Dairy Cattle or Horses
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 ANS 200A, ANS 200B, ANS 300A, ANS 300B, ANS 300C and ANS 300D.
Evaluation of functional conformation of dairy cattle or horses. Preparation for intercollegiate competition. Field trips required.