544. Human Ontogenesis  
Fall. 3(3-0) Admission to a college of medicine; graduate students with approval of department. 
Formal lectures, class conferences and student reports on the normal and abnormal organogenesis of the human embryo and fetus with emphasis on clinical correlations.

545. Neuroanatomy  
Spring. 3(4-0) Admission to medical school or approval of Neuroscience Committee. Introduction to gross and microscopic anatomy of the human nervous system, to related basic neurophysiologic concepts and to a problem-solving approach to the diagnosis of nervous system disease.

548. Medical Histology  
Summer. 4(3-4) Admission to a college of medicine or approval of department. 
Structural and functional characteristics of basic cells, tissues and organ systems. Emphasis on core concepts and visual discrimination.

563. Osteopathic Medical Neuroanatomy  
Fall. 4(3-4) Admission to a college of medicine; graduate students with approval of department. 
Medically oriented problem-solving neuroanatomy with laboratory. Structure of the human nervous system is correlated with normal function, clinical testing and classical lesions encountered in medical practice.

565. Introduction to Human Gross Anatomy  
Summer. 6(4-6) Admission to a college of medicine or approval of department. 
Core concepts in regional, systemic and topographical human gross anatomy. Prosection, discussion and lecture methods using audiovisual aids and frequent review.

580. Special Problems  
Fall, Winter, Spring. Summer. 1 to 5 credits. May reenroll for a maximum of 15 credits. Admission to professional program in the College of Human Medicine, College of Osteopathic Medicine or the College of Veterinary Medicine, and approval of department. 
Biomedical research, gross anatomy, histology, neurology, immunology or embryology.

813. Problems in Anatomy  
Fall, Winter, Spring. Summer. Variable credit. May reenroll for a maximum of 15 credits. Basic disciplines in various areas and approval of department. 
Various anatomical fields such as gross anatomy, histology, hematology, tissue culture, cytology, neurology and embryology will be studied.

815. Anatomy of the Nervous System  
Fall. 3(3-5) Approval of department. 
Developmental, gross and microscopic anatomy of the nervous system. Organizational and functional aspects of the peripheral and central nervous systems are stressed. Gross demonstrations include brain and dog dissections.

816. Developmental Anatomy  
Fall. 3(3-3) Graduate students or approval of department. 
Study of the normal and abnormal organogenesis of the human embryo and fetus.

865. Advanced Neurobiology  
Spring. 4(4-0) BPY 827. Interdepartmental with the departments of Biophysics, Physiology, Psychology and Zoology. 
Basic organization, structure and function of neural networks comprising sensory, motor, and autonomic systems including examples from invertebrates and vertebrates. Attendance at neuroscience seminar is required.

891. Concepts in Tumorigenesis  
Winter of even-numbered years. 2(3-0) Approval of instructor. 
In depth evaluation of the current concepts in tumorigenesis emphasizing the experimental results from which these concepts evolved.

909. Master's Thesis Research  
Fall, Winter, Spring, Summer. Variable credits. Majors.

999. Doctoral Dissertation Research  
Fall, Winter, Spring, Summer. Variable credits. Majors.
827. Research Methods in Nutrition
Fall, Winter, Spring.
Interdepartmental with and administered by Human Nutrition and Foods.
Survey of the animal industries including history, economy, geography, anatomy and physiology, nutrition and feed usage, and systems of commercial livestock and poultry production.

229. Comparative Nutrition-Vitamins
Spring of odd-numbered years. 3(0-3)
BCH 452 and a previous course on principles of nutrition. Interdepartmental with Human Nutrition and Foods.
Chemical and physical properties, standards of activity, occurrence, metabolic roles, anti-vitamins, deficiency and toxicity signs, requirements and factors affecting requirements.

563. Genetics of Breed Improvement
Winter of odd-numbered years. 3(0-3)
BCH 361, SIT 421.

854. Design of Animal Experiments
Spring. 4(4-0) One course each: biochemistry, physiology, and approval of department.
Nutrition basic to animal feeding. Application of chemistry and physiology to nutrition. Nutrient requirements for normal body functions. Techniques involved in nutrition research; readings in current literature.

585. Analysis of Unbalanced Multifactor Data
Spring. 4(4-0) SIT 433.
Applied analysis techniques of field or survey data with unbalanced subclass numbers in field of biological sciences; principles utilizing several variables; estimation of effects of factors and their interactions.

965. Biometrical Genetics
Fall of odd-numbered years. 3(0-3)
ANS 855 and one course in quantitative genetics.
Genetics models for quantitative traits; estimation of components of variance; correlation of relatives; Selection Index theory; multi-factor and multivariate responses in designed experiments.

ANIMAL SCIENCE

College of Agriculture and Natural Resources

101. Animal Science
Fall. 5(4-2)
Survey of the animal industries including history, economy, geography, anatomy and physiology, nutrition and feed usage, and systems of commercial livestock and poultry production.

325. Principles of Animal Nutrition
Spring. 5(5-0) CEM 132; BCH 200 recommended.

361. Principles of Animal Breeding
(Winter) B S 211 or a course in Mendelian genetics.

433. Ruminant Nutrition
(DRI 433) Winter. 4(3-2) ANS 325, Interdepartmental with and administered by the Department of Dairy Science.
Principles of ruminant nutrition and application to actual feeding practices in commercial dairy and beef operations. Rumen fermentation as related to feed utilization, growth, milk production and milk composition.

525. Animal Nutrition
Fall. 5(4-2) BCH 401.

ANTHROPOLOGY

College of Human Medicine
College of Osteopathic Medicine
College of Social Science

100. The Origin of Man and Culture
Fall, Winter, Spring. 4(3-1)
Introduction to physical anthropology: the position of man in the animal kingdom, the genetic mechanisms of evolution, human beginnings and the fossil record, racial evolution and racial types among modern man, the anticipation of culture among other animals and the development of human culture, and culture as an adaptive mechanism.

171. Introduction to Sociocultural Anthropology ($)
Fall, Winter, Spring. 4(3-1)
Comparison of ways of life among primitive, peasant and civilized peoples. Implications of these styles of life for understanding of human behavior in general and exotic cultures in particular.