413. Special Problems
Fall, Winter, Spring. 1 to 3 credits.
May re-enroll for a maximum of 5 credits. Seniors and approval of department.
Special studies in fields not covered by other animal husbandry courses.

415. Swine Production
Spring. 4(3-3) ANS 325 or approval of department.
Historical aspects with emphasis on current trends. Breeds, breeding, selection, nutrition requirements, management practices, marketing, housing and environmental needs, disease and pest problems. Visits to representative farms.

451. Beef Production
Spring. 4(3-3) ANS 325 or approval of department.
History, breeds, breeding, selection, nutrition and feeding, commercial systems of production, diseases and parasites. Visits to purebred herds and feedlots. Practice in management skills.

452. Sheep Production
Winter of even-numbered years. 4(3-3) ANS 325 or approval of department.
History, modern breeds, breeding, selection, nutrition and feeding, management, marketing, housing, diseases and parasites, wool. Visits to farm flocks. Practice in management skills.

453. Horse Production
Fall of even-numbered years. 3(2-2) ANS 325 or approval of department.
Selection, breeding, feeding, management, marketing, diseases and parasites. Visits to purebred herds and feedlots. Practice in management skills.

455. Techniques in Nutrition Research
Winter of odd-numbered years. 1 to 3 credits. CEM 333; approval of department. Interdepartmental with Human Nutrition and Foods.
Use of specialized instruments and techniques. Laboratory safety. Management of laboratory animals. Development of abilities in areas of particular interest to individual students.

Winter. 3(4-0)
For course description, see Interdisciplinary Courses.

825. Comparative Nutrition I
Winter. 2 or 4 credits. BCH 452, PSL 502 or concurrently. Interdepartmental with Human Nutrition and Foods.
Mammalian nutrition based on biochemical and physiological phenomena. Proteins are studied in the first half of the term; carbohydrates, fats and macro-minerals in the last half.

899. Animal Nutrition
Fall, Winter, Spring, Summer. Variable credit. Approval of department.

925. Comparative Nutrition II
Spring. 2 or 4 credits. BCH 452, PSL 502, Interdepartmental with Human Nutrition and Foods.
Mammalian nutrition based on biochemical and physiological phenomena. Micro-minerals are studied in the first half of the term; vitamins in the last half.

963. Genetics of Breed Improvement
Winter. 3(3-0) ANS 461, STT 421.

964. Breeding Systems and Plans
Spring. 3(3-0) 963.
Biometric relations between related animals. Role of selection in changing populations. The effects of different mating systems.

999. Research
Fall, Winter, Spring, Summer. Variable credit. Approval of department.

ANTHROPOLOGY ANP

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

100. The Origin of Man and Culture
Fall, Winter, Spring, Summer. 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 and ethnic groups through modern man; the anticipation of culture among other animals and the development of human culture, and culture as an adaptive mechanism.

171. Introduction to Anthropology
Fall, Winter, Spring, Summer. 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.

200. Resource Ecology and Man
For course description, see Interdisciplinary Courses.

221. Introduction to Social and Cultural Analysis
Fall, Spring. 4(3-1) 171
Basic theoretical framework of socio-cultural analysis; structural functionalism, evolutionaryism, and cultural ecology.

250. Culture, Environment and Adaptation
Fall. 4(3-0) 100
Culture as an adaptive process—developed in the million years of human history and still influencing environments, quality, population control, and allocation of resources in primitive and modern societies.

263. Origin of Civilization: Archaeology
Spring. 4(3-0) 100 or 171
The rise, development and spread of culture in the period before written history. Archaeological evidence is used to trace the evolution of culture as it has been reconstructed from the excavation of pre-historic sites in the Old and New World.

275. The Anthropology of Asia
Fall. 4(3-0) Sophomore or approval of department.
Several cultural complexes and cultures types—from hunting and gathering through complex civilization—of East, Southeast, and South Asia. The cultures and nature of their development will be examined. Past and present significance of cultural stability and change will be seen in a comparative framework.

281. The Africans and Their Cultures
Fall, Spring. 4(3-0) Sophomore or approval of department.
Racial and cultural problems confronting the African peoples.