

**929. Comparative Nutrition-Vitamins**  
Spring of odd-numbered years. 3(3-0)  
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, antivitamins,  
deficiency and toxicity signs, requirements  
and factors affecting requirements.

**963. Genetics of Breed Improvement**  
Winter. 3(3-0) ANS 461, STT 421.  
Breed improvement. Changing gene frequency.  
Genetic and environmental subdivision of  
phenotypic variance.

**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.

## ANIMAL SCIENCE                      ANS

### College of Agriculture and Natural Resources

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

**213. Animal Science Seminar**  
Fall. 1(2-0)  
Animal science industries. Industry representatives  
will be utilized to discuss particular areas.

**325. Principles of Animal Nutrition**  
Spring. 5(5-0) CEM 132; BCH 200  
recommended.  
Livestock feeds and their nutrients. Functions  
of and requirements for nutrients. Evaluation  
of feeds. Feeding practices. Formulation of  
rations for beef and dairy cattle, horses, poultry,  
sheep and swine.

**461. Principles of Animal Breeding**  
Winter. 3(3-0) CSC 250.  
Quantitative inheritance. Gene frequency. Statistical  
tools used in animal breeding. Effect of  
selection and mating systems on animal population.

**525. Animal Nutrition**  
Winter, Summer. 5(4-2) BCH 401.  
Principles of nutrition. Nutrients and their metabolism.  
Nutritive requirements for maintenance,  
growth, reproduction, lactation and work.  
Nutrient sources and their use in preparing diets  
for domestic animals.

**826. Animal Nutrition**  
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.

**854. Design of Animal Experiments**  
Spring. 4(4-0) STT 423.  
Choice, implementation and statistical analysis  
of experimental plans for research with animals.  
Designs for reduction of experimental error.  
Analysis of experiments with complex structure  
or unequal subclass numbers.

**965. Biometrical Genetics**  
Fall. 4(4-0) One course in quantitative  
or population genetics.  
Genetic expectations in random mating and in-  
bred populations. Estimation of genetic parameters.  
Relation of gene frequency to population  
mean and variance. Components of genetic  
variance. Correlation of relatives. Selection  
theory.

## 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 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 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, evolutionism,  
and cultural ecology.

**250. Culture, Environment and  
Adaptation**  
Fall. 4(3-1) 100.  
Culture as an adaptive process—as developed in  
the million years of human history and still  
influencing environmental quality, population  
control, and allocation of resources in primitive  
and modern societies.

**263. Origin of Civilization:  
Archaeology**  
Spring. 4(3-0) 100.  
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) Sophomores 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) Sophomores or  
approval of department.  
Racial and cultural problems confronting the  
African peoples.

**285. Anthropology and the Modern  
World**  
Spring. 4(2-2) 171.  
Interwoven nature of cultural traditions in the  
modern world. Consideration of how people of  
developing nations respond to the dominant  
cultural forces of industrialized nations.

**350. Peasant Society**  
Fall. 4(3-1) 171.  
Anthropological study of peasantry. Comparative  
examination of the rural societies and  
cultures of Asia, Europe, and Latin America.

**356. Culture, Health and Illness**  
Spring. 4(3-1) 171.  
Anthropological study of health behavior. Comparative  
view of primitive, folk and scientific  
medical systems and their effect on the individual  
and the community in the illness situation.

**381. Anthropology and Education**  
Winter. 4(3-1) 171 or other Social  
Science. For Education and Anthropology  
majors.  
Maturation and socialization in various societies  
of Asia, Africa, and Latin America. These will  
be compared with educational institutions in the  
U.S. and Europe. It is expected to be a contribution  
to the broader cross-cultural investigation of the  
teaching/learning process.

**384. Contemporary Problems of Japan**  
For course description, see Interdisciplinary  
Courses.

**387. Ethnicity and Nation Building**  
Spring. 4(2-2) 171.  
Ethnic minorities and the roles they play in  
fostering and/or hindering nation building  
processes in Third World countries. A theoretical  
framework is utilized to compare systematically  
these roles in various areas of the world.

**389. Continuing Revolution in China:  
Problems and Approaches**  
For course description, see Interdisciplinary  
Courses.

**390. Survey of Subsaharan Africa**  
For course description, see Interdisciplinary  
Courses.

**391. Survey of Subsaharan Africa**  
For course description, see Interdisciplinary  
Courses.

**400H. Honors Work**  
Fall, Winter, Spring, Summer. 1 to  
16 credits. May re-enroll for a maximum of 20  
credits. Approval of department.

**411. Studies in the Anthropology of  
Asia**  
Fall, Winter, Spring. 4(3-0) May re-  
enroll for credit for Part II in an area and/or  
for another area. 171; 275 or approval of  
department.  
Separate courses in Asian cultures: China; Ja-  
pan; Southeast Asia; South Asia; Central Asia.  
A two part course sequence is usually given.  
Part I: Ethnographic survey. Part II: Sub-areas,  
special problems and approaches.