ANIMAL SCIENCE ANS

College of Agriculture and Natural Resources

101. Animal Science
Fall. 3(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 152, BCH 200 recommended.

361. Principles of Animal Breeding
Winter. 3(3-0) B S 211 or a course in Mendelian genetics.

433. Ruminant Nutrition
Winter. 4(3-2) ANS 325, Interdepartmental with and administered by 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.

450. Toxicology of Food Producing Animals
Spring. 4(4-0) PSL 241, BCH 200. Interdepartmental with Dairy Science.
Effect and effects of toxic chemicals in food-producing animals: impact on animal production, residues in food products, safety assessment and control methods.

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

582. 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.

584. 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.

585. Analysis of Unbalanced Multifactor Data
Spring. 4(4-0) STT 423.
Applied analysis techniques of field or survey data with unbalanced subclass numbers in field of biological sciences; predictions utilizing several variables; estimation of effects of factors and their interactions.

965. Biometrical Genetics
Fall of odd-numbered years. 4(4-0) ANS 853 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.

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 Sociocultural Anthropology (5)
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.

IDC. Introduction to Latin America I
For course description, see Interdisciplinary Courses.

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

250. Culture, Environment and Adaptation (5)
Fall. 4(3-1)
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.

IDC. Introduction to Contemporary China
For course description, see Interdisciplinary Courses.

262. Status of Women in Culture and Society: A Comparative View
Fall. 3(3-0)
Comparative analysis of the status of women in non-Western cultures and societies. Economic and domestic division of labor between the sexes as a factor underlying division of status, power and authority.

263. Origin of Civilization: Archaeology
Winter. 4(4-0)
The rise, development and spread of culture in the period before written history. Archaeological evidence is used to trace the emergence of cultural systems as it has been reconstructed from the excavation of prehistoric sites in the Old and New World.

264. Great Discoveries in Archaeology
Winter. 4(4-0)
Great discoveries in archaeology that have captured the public's imagination and shaped the discipline, from Olduvai Gorge to King Tut's tomb.

265. Vanished Peoples and Lost Civilizations
Fall. Spring. 4(4-0)
Concepts of cultural evolution and origins of civilizations as found in popular literature ranging from Atlantis to Chariots of the Gods.

266. War and Aggression
Fall. Spring. 3(3-0)
The question 'What makes friends and what makes enemies?' is examined from the standpoint of cultural anthropology. Violence-prone cultures and peaceful ones are compared for factors influencing human aggression.

275. The Anthropology of Asia
Fall. 4(4-0)
Several cultural complexes and culture 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
Spring. 4(4-0)
Racial and cultural problems confronting the African peoples.

285. Anthropological Perspectives on Global Interdependence
Spring. 4(2-2) ANP 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.

IDC. Contemporary South Asia
For course description, see Interdisciplinary Courses.

343. Introduction to Physical Anthropology
Fall. 4(0-2)
Problems, data and techniques associated with the main topical areas of physical anthropology: human genetics, hominid evolution, primate behavior, human ontology and human diversity. Field trips may be required.
350. **Peasant Society**
Fall. 4(3-1) ANP 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) ANP 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.

380. **Methods of Sociocultural Anthropology**
Spring. 4(4-0) ANP 171. one upper division sociocultural ANP course, approval of department.
Field research and analysis methods and techniques in anthropology; development of research problems and questions; alternate models of validation; ethics of research and presentation of findings.

381. **Anthropology and Education**
Winter. 4(3-1) ANP 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.

389. **The Anthropology of Social Movements**
Winter. 4(2-2) ANP 171 or approval of department.
Analysis of the different cultures around the world organize and create (or impede) change on the basis of class, religion, race, ethnicity, profession, and politics.

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

406. **Environmental History**
Winter. 4(4-0) Juniors. Interdepartmental with and administered by the Department of History. History of the impact of human societies on the natural environment. Focus of human induced environmental change on the history of various peoples. Global, thematic approach with emphasis on Europe and America since the 16th century.

407. **Interactions of Culture and Nutrition**
Fall. 3(3-0) Juniors; HNF 102 or ANP 171 or approval of instructor. Interdepartmental with and administered by Human Nutrition and Foods.
World and U.S. food behavior focusing on conflicts between behavior and nutritional needs at various stages of life cycle. Anthropological, psychological, and social influences affecting food behavior are analyzed.

411. **Studies in the Anthropology of Africa**
Fall. Winter, Spring. 4(4-0) May reenroll for credit for Part II in an area and/or for another area. ANP 171; ANP 281 or approval of department.
Separate courses in African cultures: West Africa; Central Africa, East Africa. A two-part course sequence is usually given. Part I: Ethnographic survey. Part II: Sub-areas, special problems and approaches.

415. **Studies in the Anthropology of Africa**
Winter, Spring. 4(4-0) May reenroll for credit for Part II in an area and/or for another area. ANP 171; ANP 281 or approval of department.
Separate courses in African cultures: West Africa; Central Africa, East Africa. A two-part course sequence is usually given. Part I: Ethnographic survey. Part II: Sub-areas, special problems and approaches.

419. **Studies in the Anthropology of the Near East**
Fall, Winter, Spring. 4(4-0) May reenroll for credit for Part II in an area and/or for another area. ANP 171 or approval of department.
Separate courses in Near East cultures: North Africa and South Asia. A two-part course sequence is usually given. Part I: Ethnographic survey. Part II: Sub-areas, special problems and approaches.

423. **Studies in the Anthropology of the Near East**
Winter, Spring. 4(4-0) May reenroll for credit for Part II in an area and/or for another area. ANP 171 or approval of department.
Separate courses in Near East cultures: North Africa and South Asia. A two-part course sequence is usually given. Part I: Ethnographic survey. Part II: Sub-areas, special problems and approaches.

426. **Humanistic Perspectives on Global Diversity and Interdependence**
Fall. 4(4-0) Juniors or approval of department. Interdepartmental with and administered by the Department of History. Anthropological and historical analysis of global diversity and interdependence since the 16th century.

427. **Contemporary Issues in Global Interdependence and Change**
Winter. 4(4-0) HST 425 or approval of department. Interdepartmental with and administered by the Department of History. Interdependence of the modern world since 1945. Focus on such issues as the impact of the West on the non-western world, industrialization, modernization, population and natural resources.

428. **Project in Global Studies**
Spring. 4(4-0) HST 426 or HST 427 or approval of instructor. Interdepartmental with and administered by the Department of History. Supervised project to test students' competence in applying the conceptual tools and historical diversity/interdependence frameworks introduced in the prerequisite courses.

444. **Human Diversity**
Winter of even-numbered years. 3(3-0) ANP 100.
Origins and evolutionary meaning of human physical variability. Racial variation as an adaptive phenomenon. Roles of genetic and environmental influences in creating the phenotype.

445. **Fossil Hominids**
Winter of odd-numbered years. 3(3-0) ANP 100.
Fossil evidence and theories pertaining to human evolution during the last four million years.

446. **Primateology**
Spring. 3(3-0) ANP 100.
The order primates: evolution, taxonomy, biology, and behavior. Primate learning, cultural, sexual, maternal, and aggressive behavior, and social organization.

450. **Area Courses in Prehistory**
Fall, Winter. 4(4-0) May reenroll for a maximum of 16 credits when other areas are offered. ANP 106 or ANP 263.
Archaeology of different areas with emphasis on prehistoric adaptations to natural and social environments. Settlement patterns, subsistence, technology, and style will be considered. Areas covered will vary with staff and student interest.

455. **Theory in Historical Archaeology**
Winter of even-numbered years. 4(4-0) ANP 265 or approval of department.
Traces the history of the development of theory and method in historical archaeology. Historic site interpretation is also considered.

456. **The Practice of Historical Archaeology**
Spring of even-numbered years. 4(4-0) ANP 265 or approval of department.
Course content includes the theoretical and methodological methods of artifact typology. Artifact classes, including ceramics, trade goods, firearms, and architecture, are examined for purposes of identifying attributes useful in the areal and temporal placement of historic sites.

457. **Public Archaeology**
Fall of even-numbered years. 3(3-0) ANP 100; at least one 400-level archaeology course.
History of public archaeology, legislation and review procedures at State and Federal level, contract requirements for reports and field work; roles of amateurs, professional certification and private contractors.

463. **Social Anthropology**
Fall, Spring. 4(4-0) ANP 171 or approval of department.
Organization and structure of non-Western societies, ranging from simpler tribal and peasant societies to complex civilizations. Social institutions, such as those based upon kinship, sex, age and status, are studied for specific groups.

464. **Religion and Culture**
Winter. 4(4-0) ANP 221 or ANP 463 or ANP 464, or approval of department.
Religious beliefs and magical practices of primitive peoples and functions of magic and folklore in contemporary society. Religion as an institution in society.

465. **Symbolic Anthropology**
Winter. 4(4-0) ANP 465, or approval of department.
Course explores how human perception and communication are guided by systems and meanings and relates systems of thought to systems of action. Examples from Western and non-Western cultures.

467. **Language and Culture**
Fall, Spring. 4(4-0) Approval of department. Interdepartmental with the Department of English.
A survey exploring the interconnectedness of language and culture. Special areas to be emphasized include: Child Language Learning, Linguistic and Cultural Contact Phenomena, Specialized Language, such as Code, Jargon, Trade Jargon, Lingua Franca, 'Hybridization' and 'Substratum', Language and Cultural Change; language and social behavior. A brief examination of Theories of Origins and of the Special-Word Hypothesis.
468. Systems of Rank
Spring of odd-numbered years. 4(4-0)
ANP 223 or ANP 463 or approval of department.
A comparative study of systems of rank such as age grading, sexual, spatial, caste, ethnicity, and class systems. The course emphasizes both symbolic and transactional analyses of rank.

469. Cultural Areas of the World
Winter, Summer. 4(4-0) May reenroll for credit when new area is given. ANP 106 or ANP 171 or SOC 241 or approval of department.
Social character of people, social organization, culture of area in relationship to social heritage, local conditions, and historical forces and processes that are emphasized in the study of cultural areas will vary with staff and student interest. Africa, American Indian, Latin America, Near East, Northeast Asia, Pacific, and Southeast Asia.

470. Anthropology of Legal Systems
Spring of even-numbered years. 4(4-0)
ANP 221 or ANP 463 or approval of department.
A comparative examination of legal ideas in selected non-Western preindustrial and peasant societies; parallel and contrasts are drawn with key legal ideas of modern Western systems.

472. Anthropology of Legal Systems
Spring of even-numbered years. 4(4-0)
ANP 221 or ANP 463 or approval of department.
A comparative examination of legal ideas in selected non-Western preindustrial and peasant societies; parallel and contrasts are drawn with key legal ideas of modern Western systems.

473. Culture and Personality
Fall, Spring. 4(4-0) One 300 level anthropology or sociology course, Intermediate with the Department of Sociology.
Human nature in evolutionary and cross-cultural perspective. Special attention to relating theories of anthropology and psychology to methods of studying personality in non-Western societies.

474. Culture and Economic Behavior
Winter. 4(4-0) ANP 221 or ANP 463 or approval of department.
Economic systems of changing cultures in Asia, Africa, and Latin America. Relations between political and other social institutions and analysis of the organization of conflict in non-Western societies. The relation of tribal and peasant politics to national politics in development countries seen in a comparative framework.

475. Political Anthropology
Spring of odd-numbered years. 4(4-0)
ANP 221 or ANP 463 or approval of department.
Political systems of changing cultures in Asia, Africa, and Latin America. Relations between political and other social institutions and analysis of the organization of conflict in non-Western societies. The relation of tribal and peasant politics to national politics in development countries seen in a comparative framework.

476. Practicum in Field Archaeology
Summer. 2 to 12 credits. May reenroll for a maximum of 20 credits. Approval of department.
Application of methods and techniques of field archaeological research using actual sites and in the context of participation in a research program. Small groups work closely with staff in the execution of research designs.

477. History of Anthropological Theory
Fall. 5(5-0) ANP 802, ANP 804 or approval of department.
A review of the various schools of thought, important personalities, and principal concepts that have contributed to the development of anthropological theory.

478. Seminar in Cross-Cultural Relations
Winter of odd-numbered years. 4(4-0)
Approval of department. Interdepartmental with the Department of Sociology.
Analysis of the relations between subordinate and subordinate societies and between coordinate societies and cross-cultural exchange programs.

479. Anthropological Theorists
Winter. 4(4-0) May reenroll for credit with approval of department. Approval of department.
Review of current theoretical problems in social and cultural anthropology.

480. Linguistic Anthropology
Winter. 5(3-2) Approval of department.
The nature of language; techniques for the description and comparison of languages; linguistics as an anthropological tool; language and culture.

481. Anthromopological Topics in Prehistory
Spring. 4(4-0) May reenroll for a maximum of 12 credits when other problems are offered. Approval of department.
Relation of archaeology to other fields of anthropology on both a theoretical and practical level. Archaeological data are used to introduce problems of long-range cultural change and development.

482. Human Osteology and Osteometry
Spring of even-numbered years. 5(3-4)
Approval of department.
Identification of human bones and fragments; aging, sexing, and determining the race of skeletal remains; measuring techniques for cranial and postcranial remains; the more common forms of paleopathology.

483. Subaharan Africa Seminar
For course description, see Interdisciplinary Courses.

484. Archaeological Methods and Techniques
Winter. 4(4-0) Approval of department.
Seminar outlining archaeological method and the role of technique in the strategy of archaeology. Techniques and problems of information retrieval will be emphasized.

485. Methods of Archaeological Research
Spring. 4(3-1) ANP 450 or approval of department.
Methods of doing anthropological research through anthropological problem formulation, hypothesis development, testing; principles and procedures of data recognition, collection, preliminary laboratory processing and preliminary analysis; preparation for field archaeology.

486. Core Seminar in Ethnographic Analysis II
Winter. 4(4-0) ANP 801.
Continuation of ANP 801.

487. Introduction to Paleoanthropology II
Winter. 4(4-0) Approval of department.
Exploration of evolutionary theory followed by an examination of data and modes of analysis pertinent to the study of hominid evolution and the development of culture through the Middle Pleistocene.

488. Cross-Cultural Relations in the Modern World
Winter of even-numbered years. 4(4-0)
ANP 473, Interdepartmental with the Department of Sociology.
Relationship of native peoples to world-wide forces and reactions of native peoples to world struggle for power. Problems involved in administration of programs for non-Western societies.

489. Core Seminar in Ethnographic Analysis I
Fall. 4(4-0) Approval of department.
Develops professional competence in the analytical assessment of monographic studies in social anthropology and examines a selected range of analytical issues in relation to their ethnographic contexts.

490. Topics in Anthropology
Fall, Winter, Spring. 2 to 6 credits. May reenroll for a maximum of 20 credits when a different topic is given. Approval of department.
Experimental courses and courses taught by visiting scholars.

491. Topics in Medical Anthropology
Fall, Winter, Spring. 2 to 5 credits. May reenroll for a maximum of 16 credits. Approval of department.
Western and non-Western health care and medical systems, relationships between cultural systems and treatment of illness, cross-cultural analysis of health maintenance and medical delivery.

492. Independent Study
Fall, Winter, Spring. 2 to 16 credits. May reenroll for a maximum of 16 credits. Written approval of instructor and department.
Study of a selected topic under the guidance of a faculty adviser in the area of specialty, including field work.

493. Core Seminar in Ethnographic Analysis II
Winter. 4(4-0) ANP 803.
Exploration of hominid evolution and cultural development from the Middle Pleistocene through the Early Holocene. Emphasis on selected issues illustrating the ways in which paleoanthropologists solve problems.
ART

College of Arts and Letters

History of Art

205. Purposes of Art
Fall, Winter, Spring. 3(3-0). Not open to majors.
Individual paintings, sculptures, and architectural works examined intensively for their reflections of cultural life, especially in the Western World, as well as for their formal and stylistic qualities.

206. History of Western Art
Fall. 4(4-0)
Painting, sculpture, architecture and decorative art from prehistoric to modern times. Provides acquaintance with the forms of art typical of each period and indicates the aesthetic qualities which give them artistic significance. Work in first term covers Prehistoric, Egyptian, Mesopotamian, Greek, Roman, Early Christian and Byzantine periods.

History of Ancient Art

207. History of Western Art
Winter. 4(4-0)
Continuation of H A 206. Early Medieval, Romanesque, Gothic, Renaissance and Man- nerist periods.

208. History of Western Art
Spring. 4(4-0)
Continuation of H A 207. Baroque, Rococo, Neoclassic and subsequent periods to contemporary art.

IDC. Introduction to Latin America II
For course description, see Interdisciplinary Courses.

209. Greek Art and Archaeology
(404.) Winter. 4(4-0) H A 206 or approval of department.
The history of painting, sculpture, and architecture of Ancient Greece from the Bronze Age through the Hellenistic period. The history of archaeological excavations of selected sites.

210. Roman Art and Archaeology
(405.) Spring. 4(4-0) H A 206 or approval of department.
The history of painting, sculpture and architecture of Ancient Rome from the Republic through the 4th century. The history of archaeological excavations of selected sites.

211. Women in Modern Art
Fall. 3(3-0) H A 208 recommended.
Contributions of selected European and American women artists and architects active since the late nineteenth century: analysis of their oeuvres and their changing relationships to mainstream artistic/critical developments.

212. History of Photography
Spring. 3(3-0) H A 208 or approval of department.
Evolution of the techniques and aesthetics of photography, and their interrelationship. Appreciation of contemporary trends, sources, and artists.

213. Ancient Painting
Spring. 4(4-0) H A 206 or approval of department.
Ancient Greek and Roman painting, including Minoan Crete. Special emphasis is placed on Archaic and Classical Greek painting on pottery and on Roman wall painting from Pompeii and elsewhere.

214. Ancient Sculpture
Fall of odd-numbered years. 4(4-0)
H A 206 or approval of department.
The sculpture of Ancient Greece and Rome, from the Bronze Age through Early Christian times.

215. Ancient Architecture
Winter of even-numbered years. 4(4-0) H A 206 or approval of department.
The architecture of Ancient Greece and Rome, from Mycenaean times to the 6th century A.D., with special emphasis on the religious architecture of Classical Greece and Imperial Rome.

216. Early Christian and Byzantine Art
Fall. 4(4-0) H A 206 or approval of department.
Development of Christian art and architecture from the third through eighth centuries in the west, and through the Macedonian Renaissance in the east.

217. Carolingian, Ottonian, and Romanesque Art
Winter. 4(4-0) H A 207 or approval of department.
The history of architecture, painting, and sculpture in the west from the time of Charlemagne through the Ottoman Empire and the great Romanesque churches of the 11th and 12th centuries.

218. Gothic Art
Spring. 4(4-0) H A 207 or approval of department.
Development of the great French cathedrals of the 12th and 13th centuries, including their sculpture, stained glass, and decorations, as well as their influence in other countries.

219. Italian Renaissance Architecture
Spring. 4(4-0) H A 207 or approval of department.
Important buildings of the 15th and 16th centuries, architectural theories, and architectural representations in drawings and paintings.

220. Italian Renaissance Sculpture
Winter. 4(4-0) H A 207 or approval of department.
Major artists from circa 1250 to 1900.

221. Italian Renaissance Painting—Fifteenth Century
Fall. 4(4-0) H A 207 or approval of department.
Developments in Italian painting, especially Florentine, of the 14th and 15th centuries, with emphasis on 15th century masters such as Masaccio, Piero della Francesca and Botticelli.

222. Italian Renaissance Painting—Sixteenth Century
Spring. 4(4-0) H A 207.
Emphasis on Leonardo, Michelangelo, Raphael, Titian, Tintoretto, and other important masters of the High and Late Renaissance.

223. The Age of Michelangelo
Spring. 4(4-0) Approval of department.
Interdepartmental with Italian and the Department of History.
Art, society, and literature in the Italian Renaissance, focusing on the art and poetry of Michelangelo as expressions of the events and concerns of his time.