

## Descriptions — Animal Science

### of

### Courses

#### 472. **Sheep Production and Management**

(A H 452.) Winter. 4(3-2) ANS 211, ANS 313 or approval of department.

Management of sheep enterprises. Using the tools of selection, reproduction, nutrition, flock health, housing and marketing to increase returns. Practice in trimming, showing, and management skills.

#### 482. **Swine Production and Management**

(A H 451.) Fall. 4(3-2) ANS 211, ANS 313 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 parasite problems. Visits to representative farms.

#### 483. **Swine Nutrition**

(A H 426.) Spring of odd-numbered years. 3(3-0) ANS 313 or ANS 525; ANS 482.

Digestive and metabolic development and nutrient requirements of swine. Interactions of genetics, disease, endocrinology and environment with nutrition. Critical evaluation of swine feeds and feed formulation. Recent swine nutrition research.

#### 488. **Animal Systems in International Development**

Winter. 4(4-0) ANS 211 or IDC 200 or PAM 260 or approval of department.

Animal production systems in diverse climatic, geographical and socio-economic environments. Emphasizes species efficiency in human food production and resource use in Africa, Latin America and Asia.

#### 525. **Animal Nutrition**

Fall. 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.

#### 800. **Advanced Independent Study**

(A H 890.) Fall, Winter, Spring, Summer. 1 to 4 credits. May reenroll for a maximum of 8 credits. Approval of department.

Investigation of areas within animal science of special interest to graduate students.

#### 832. **Research Methods in Nutrition**

(A H 827.) Fall. 2(2-0) Approval of department.

Experimental techniques in nutrition: ration formulation, animal management, sampling procedures, balance trials, bioassays, tracer methodology, determination of nutrient requirements.

#### 871. **Design of Animal Experiments**

(854.) 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.

#### 872. **Analysis of Unbalanced Multifactor Data**

(855.) Spring. 4(4-0) STT 423.

Applied analysis techniques of field or survey data in biological sciences with unbalanced subclass numbers. Building models to fit data and research goals. Interpretation of analysis.

#### 873. **Statistical Packages for Analysis of Experiments**

Fall. 3(2-2) STT 423 or approval of instructor.

Recording data for computer analysis. Computer files and the EDITOR. Methods include SPSS, SAS, BMDP and GENSTAT.

#### 899. **Master's Thesis Research**

(A H 899.) Fall, Winter, Spring, Summer. Variable credit. Approval of department.

#### 931. **Advanced Ruminant Nutrition**

(DRY 925.) Fall of even-numbered years. 4(4-0) BCH 452, PSL 801 or approval of department.

Microbiology, physiology and biochemistry of ruminant digestion. Absorption and metabolism of rumen fermentation products.

#### 935. **Comparative Nutrition—Lipids and Carbohydrates**

(HNF 926.) Winter of odd-numbered years. 4(4-0) BCH 452 and a previous course on principles of nutrition. Interdepartmental with and administered by Human Nutrition and Foods.

Regulatory aspects of carbohydrate and lipid metabolism as influenced by nutrition in mammals. Emphasis on normal and abnormal physiological states such as obesity, ketosis and diabetes.

#### 936. **Comparative Nutrition—Protein Metabolism and Developmental Biology**

(HNF 927.) Winter of even-numbered years. 4(4-0) BCH 453, PSL 803 or approval of department. Interdepartmental with Human Nutrition and Foods.

Protein quality assessment, protein status, protein calorie malnutrition, amino acid metabolism, protein turnover, digestion and absorption, hormonal control of protein metabolism, developmental aspects of protein metabolism and growth.

#### 937. **Comparative Nutrition—Minerals**

(A H 928.) Spring of even-numbered years. 3 credits. BCH 452, PSL 802. Interdepartmental with Human Nutrition and Foods.

Forms and location in body, metabolic roles, deficiency and toxicity signs, interrelationships, requirements and biological availability of sources.

#### 938. **Comparative Nutrition—Vitamins**

(A H 929.) Spring of odd-numbered years. 3(3-0) BCH 452 and a previous course on principles of nutrition. Interdepartmental with and administered by Human Nutrition and Foods.

Chemical and physical properties, standards of activity, occurrence, metabolic roles, antioxidants, deficiency and toxicity signs, requirements and factors affecting requirements.

#### 941. **Genetics of Breed Improvement**

(A H 963.) Winter of odd-numbered years. 3(3-0) ANS 314, STT 421.

Breed improvement. Changing gene frequency. Genetic and environmental subdivision of phenotypic variance.

#### 942. **Breeding Systems and Plans**

(A H 964.) Spring of odd-numbered years. 3(3-0) ANS 941.

Biometric relations between related animals. Role of selection in changing populations. The effects of different mating systems.

#### 943. **Biometrical Genetics**

(965.) Fall. 4(4-0) ANS 872.

Estimation of variance and covariance components. Best linear unbiased prediction of breeding values and selection index. Genetic models for quantitative traits. Correlation of relatives. Selection theory.

#### 999. **Doctoral Dissertation Research**

(A H 999.) Fall, Winter, Spring, Summer. Variable credit. Approval of department.

### Dairy Science

DRY

#### 899. **Master's Thesis Research**

Fall, Winter, Spring, Summer. Variable credit. Approval of department. Approved through Summer 1985.

#### 999. **Doctoral Dissertation Research**

Fall, Winter, Spring, Summer. Variable credit. Approval of department. Approved through Summer 1985.

### Poultry Science

PS

#### 899. **Master's Thesis Research**

Fall, Winter, Spring, Summer. Variable credit. Approval of department. Approved through Summer 1985.

#### 999. **Doctoral Dissertation Research**

Fall, Winter, Spring, Summer. Variable credit. Approval of department. Approved through Summer 1985.

## ANTHROPOLOGY

ANP

### College of Human Medicine College of Social Science

#### 100. **Human Evolution**

Fall, Winter, Spring, Summer. 4(4-0)

Scientific fossil and archaeological evidence on human cultural and biological origins; anticipation of culture in other animals; place of humans among the primates; processes of organic evolution; modern human genetic variability; culture as an adaptive mechanism; cultural development to the dawn of civilization.

#### 171. **Introduction to Sociocultural Anthropology (S)**

Fall, Winter, Spring, Summer. 4(4-0)

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.

#### 221. **Introduction to Social and Cultural Analysis**

Fall, Spring. 4(4-0)

Basic theoretical framework of socio-cultural analysis: structural functionalism, evolutionism, and cultural ecology.

#### 250. **Culture, Environment and Adaptation (S)**

Fall. 4(4-0)

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.

- 255. Prehistory of the Bible Lands**  
*Spring of odd-numbered years. 3(3-0)*  
Archaeological evidence for prehistoric cultures of Biblical Palestine up to the establishment of the ancient kingdoms of Judea and Israel around 1200 B.C.; rise of civilization into Old Testament times.
- 1DC. Introduction to Contemporary China**  
*For course description, see Interdisciplinary Courses.*
- 1DC. Contemporary Japan**  
*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 emphasizing 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 evolution of culture 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 civilization 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(4-0)*  
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.
- 1DC. Contemporary South Asia**  
*For course description, see Interdisciplinary Courses.*
- 343. Introduction to Physical Anthropology**  
*Fall. 4(3-2)*  
Problems, data and techniques associated with the main topical areas of physical anthropology: human genetics, hominid evolution, primate behavior, human osteology and human diversity. Field trips may be required.
- 350. Peasant Society**  
*Fall. 4(4-0) 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(4-0) 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**  
*Winter. 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(4-0) 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.
- 388. The Anthropology of Social Movements**  
*Winter. 4(4-0) ANP 171 or approval of department.*  
Analysis of how different cultures around the world organize and create (or impede) change on the basis of class, religion, race, ethnicity, language, and territory.
- 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. Effect 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**  
*Spring. 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 Asia**  
*Fall, Winter, Spring. 4(4-0) May reenroll for credit for Part II in an area and/or for another area for a maximum of 16 credits. ANP 171; ANP 275 or approval of department.*  
Separate courses in Asian cultures: China; Japan; 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.
- 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 for a maximum of 16 credits. ANP 171; ANP 281 or approval of department.*  
Separate courses on 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.
- 418. Critical Issues in Contemporary Africa**  
*Fall, Spring. 3(3-0) May reenroll for a maximum of 9 credits if different topics are taken. One course on African subject and approval of instructor. Interdepartmental with African Languages and the departments of Geography, History, Political Science, and Sociology. Administered by the Department of History.*  
Four separate multidisciplinary topics will be offered at different times: The Horn of Africa, Southern Africa, Africa and the Americas, Social Impact Studies.
- 419. Studies in the Anthropology of the New World**  
*Fall, Winter, Spring. 4(4-0) May reenroll for credit for Part II in an area and/or for another area for a maximum of 16 credits. ANP 171 or approval of department.*  
Separate courses on New World cultures: Arctic; North America; Middle America; South America. A two-part course sequence is usually given. Part I: Ethnographic survey. Part II: Sub-areas, special problems and approaches.
- 420. Indians of Mexico**  
*Fall. 4(4-0) ANP 171 or approval of department.*  
Indian cultures and communities in the modern Mexican nation. Emphasis on control of land under agrarian reform, community maintenance, cosmology, social control and identification with the land.
- 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.

## Descriptions — Anthropology

### of Courses

- 427. Contemporary Issues In Global Interdependence and Change**  
Winter. 4(4-0) Juniors 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 cultural and historical diversity/interdependence frameworks introduced in the prerequisite courses.
- 430. Environments of International Enterprise**  
Fall, Spring. 4(4-0) ANP 171 or approval of department. Natural, sociocultural, governmental, and global competitive environments that limit and are affected by multinational firms' operations are presented in an anthropological framework.
- 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 theory pertaining to human evolution during the last four million years.
- 446. Primatology**  
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 100 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 263 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 263 or approval of department. Course content includes the various 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. 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, analyzed for specific groups.
- 464. Religion and Culture**  
Winter. 4(4-0) ANP 171 or SOC 241 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 221 or ANP 463 or ANP 464, or approval of department. Course explains 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' Languages, such as Cant, Argot, Trade Jargon, Lingua Franca; 'Hybridization' and 'Substratum'; Language and Cultural Change; a brief examination of Theories of Origins and of the Sapir-Whorf Hypothesis.
- 469. Cultural Areas of the World**  
Winter, Summer. 4(4-0) May reenroll for a maximum of 16 credits when a new area is given. ANP 100 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 world affairs. Areas emphasized will vary with staff and student's interest: Africa, American Indian, Latin America, Near East, Northeast Asia, Pacific, and Southeast Asia.
- 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; parallels 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. Interdepartmental with and administered by 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. The cultural matrix of economic transactions and relations of economic and other social and cultural institutions seen in a comparative framework. Emphasis is placed on traditional agricultural or tribal communities.
- 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. Relation 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.
- 477. Urban Anthropology**  
Winter. 3(3-0) Juniors. Applies anthropological concepts to urban issues. The cross-cultural perspective includes the study of American culture and cities. Topics include ideology, social organization, power, proxemics, urbanization processes and urban reform.
- 479. Anthropology Capstone Course**  
Spring. 4(4-0) Senior Anthropology majors. Seminar on the integration of the subdivisions of anthropology and its distinctions from other approaches in the social sciences; perspectives on future directions of anthropological inquiry and options for careers.
- 481. Cross-Cultural Relations in the Modern World**  
Winter of even-numbered years. 4(4-0) ANP 473. 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.
- 482. American Folk Medicine**  
Winter. 3(3-0) Juniors or approval of department. Traditional practices of health maintenance and healing in American subcultures. Health-related folklore and practices include taboos, religious healing, witchcraft and herbal medicine.
- 485. Methods of Archaeological Research**  
Spring. 4(4-0) ANP 450 or approval of department. Methods of doing anthropological research through archaeology. Problem formation, hypothesis development, testing; principles and procedures of data recognition, collection, preliminary laboratory processing and preliminary analysis; preparation for field archaeology.
- 486. 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.

**490. Topics in Anthropology**  
Fall, Winter, Spring, Summer. 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.

**495. Topics in Medical Anthropology**  
Fall, Winter, Spring. 2 to 6 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.

**499. Independent Study**  
Fall, Winter, Spring, Summer. 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 speciality, including field work.

**800A. Concepts in Anthropology: Sociocultural Anthropology**  
Fall. 4(4-0) Approval of department.  
Theories, methods, data and issues characterizing anthropology among the social sciences and distinguishing sociocultural anthropology from other subdisciplines.

**800B. Concepts in Anthropology: Biocultural Evolution**  
Winter. 4(4-0) Approval of department.  
Theories, methods, data and issues characterizing the study of human biological and cultural development from the perspective of anthropology.

**811. Core Seminar in Sociocultural Theory and Analysis I**  
(801.) Fall. 4(4-0) Approval of department.  
Analytic assessment of sociocultural anthropology literature in terms of historical development of anthropological theory. Selected analytical methods and issues in relation to their ethnographic contexts.

**812. Core Seminar in Sociocultural Theory and Analysis II**  
(802.) Winter. 4(4-0) ANP 811.  
Continuation of ANP 811.

**813. Core Seminar in Sociocultural Theory and Analysis III**  
(805.) Spring. 4(4-0) ANP 812.  
Continuation of ANP 812.

**814. Core Seminar in Paleoanthropology I**  
(803.) Winter. 4(4-0) Approval of department.  
Evolutionary theory followed by an examination of data and modes of analysis pertinent to hominid evolution. Development of culture through the Middle Pleistocene.

**815. Core Seminar in Paleoanthropology II**  
(804.) Spring. 4(4-0) ANP 814.  
Hominid evolution and cultural development from the Middle Pleistocene through the Early Holocene. Issues illustrating the ways in which paleoanthropologists solve problems.

**820. Overview I, Medical Anthropology**  
Fall. 3(3-0) Approval of instructor.  
Theoretical frameworks central to studies of health and illness. Culturally defined approaches to diagnosis and healing. The evolution of disease.

**821. Overview II, Medical Anthropology**  
Winter. 3(3-0) Approval of instructor.  
A modular seminar in theoretical and applied issues in medical anthropology. A different theme is explored each year (e.g., healers, biology and culture, political economics of health).

**830. Kinship Studies**  
Winter of odd-numbered years. 4(4-0) Approval of department.  
The course will raise the question of what kinship is and why it has been such a central topic in anthropology. Various controversies and theoretical trends will be presented and analyzed.

**831. Linguistic Anthropology**  
Winter. 4(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.

**835. 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.

**839. African Research**  
(IDC 838.) Fall, Winter, Spring. 2 to 4 credits. May reenroll for a maximum of 8 credits. Graduate standing or approval of instructor. Interdepartmental with African Languages and the departments of Educational Administration, Geography, History, Political Science, and Sociology.  
African-related archival and field research topics and methodologies viewed from perspective of relevant social science and humanistic disciplines associated with the African Studies Center.

**850. 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.

**856. Methodology of Anthropological Research**  
Winter. 1 to 12 credits. Approval of department.  
Seminar in problems of anthropological investigation considered in the framework of history and philosophy of science. Relevance of various field techniques, methods of data gathering and data handling, and strategies of analysis for various problems are treated.

**865. Environment, Technology, and Culture**  
Winter of even-numbered years. 4(4-0) Approval of department.  
Cultural ecology; relationship of cultures to their physical environments; role of technology in adaptation; interdependence of social organization, technology and environment; case histories of change arising from technological innovations.

**870. Applied Anthropology**  
Spring of odd-numbered years. 4(4-0) Approval of department.  
Theoretical and methodological problems involved in planned social change. Course will focus on field experience in the local community. Designed mainly for graduate students having professional interest in the application of social change.

**872. Seminar in Special Subject Fields**  
Fall, Winter, Spring, Summer. 2 to 6 credits. May reenroll for a maximum of 24 credits when new fields are offered. Approval of department.  
Special fields of study will include any area of anthropology selected.

**875. Individual Research Projects**  
Fall, Winter, Spring, Summer. 1 to 12 credits. May reenroll for a maximum of 24 credits with approval of department. Approval of department.

**880. Individual Readings**  
Fall, Winter, Spring, Summer. 1 to 12 credits. May reenroll for a maximum of 24 credits with approval of department. Approval of department.

**899. Master's Thesis Research**  
Fall, Winter, Spring, Summer. Variable credit. Approval of department.

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

## ARABIC

See Linguistics and Germanic, Slavic, Asian and African Languages.

## ART

### College of Arts and Letters

#### History of Art HA

**205. Purposes of Art (A)**  
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.