ANT

Anthropology, Cultural and Archaeology

ANT 501: Development of Anthropological Theory
Survey of the development of anthropological theory from the 19th century to the present. This course is offered as both ANT 501 and DPA 501.
Spring, 4 credits, Letter graded (A, A-, B+, etc.)

ANT 502: Social Ecology
This course explores theoretical and methodological issues in the study of human social activity and its relationship to ecological systems and the environment. Readings include both classic studies as well as contemporary research, with particular emphasis placed on the various dimensions and scales of social organization and activity, and on the role of cultural, religious, and political institutions in shaping ecological relationship as well as economic behavior.
3 credits, Letter graded (A, A-, B+, etc.)

ANT 503: Social Organization
This course explores theoretical models and empirical observations of human social organization in a comparative perspective, including such topics as demography and behavioral ecology, kinship and marriage, reciprocal exchange, and political dimensions of resource mobilization in small-scale as well as complex societies. Organized around different layers of human sociality, the course examines social dependence among humans and nonhuman primates, evolutionary explanations for human mating strategies, cooperation in child-rearing, paradigms of descent and affinity, and the dynamics of hierarchy and alliance in egalitarian cultures as well as stratified states.
3 credits, Letter graded (A, A-, B+, etc.)

ANT 504: Ecology of the Turkana Basin
This course introduces students to the fundamental principles and techniques of field ecology in the context of the modern East African Lake Turkana environment. The course includes a mixture of fieldwork, lectures, seminars, readings, presentations, and independent research and writing assignments. Emphasis will be on identification of common and important species around and near the Turkana Basin Institute (TBI) at Turkwel as well as the recognition of important evolutionary and ecological patterns and issues. Fieldwork focuses on plants and insects and aims to generate useful baseline data for longer term studies. Students will be introduced to some basic ecological monitoring methods for plant and insect communities such as topics including mutualism, phenology, invasive species and restoration ecology. We will be looking closely at adaptation to heat stress/heat temperatures during this module as well as simple systems around TBI. Students will be exposed to a variety of habitats including the riverine forests and dryland grassland areas around the Turkana Basin Institute as well as the rich freshwater and island systems of Lake Turkana. Semesters offered- Fall and Spring. Components- laboratory, lecture, and recitation.
3 credits, Letter graded (A, A-, B+, etc.)

ANT 505: Vertebrate Paleontology & Paleoecology of the Turkana Basin
Vertebrate fossils are important sources of information about the appearance, evolution, and extinction of major organisms. As such, they provide a valuable window onto changes in climate and selection pressures, and organisms’ diverse adaptive responses to these changes. They are also significant in placing hominid discoveries within a relative local chronology, and helping reconstruct environments associated with hominid fluids. This course acquaints students with laboratory and field methods of paleontology employed in different chronological contexts of the Turkana Basin, used to solve diverse theoretical questions. Graded work includes fieldwork and lab assignments, independent research assignments, quizzes and a final exam. Semesters offered- Fall and Spring. Components- laboratory, lecture, and recitation.
3 credits, Letter graded (A, A-, B+, etc.)

ANT 506: Human Evolution the Turkana Basin
The Turkana Basin is home to many paleoanthropological discoveries that fundamentally reshape ideas about human evolution. Important finds from the Turkana Basin, including Nariokotome (“Turkana Boy”) and KNM-WT 17000 (the “Black Skull”) will be highlighted in lectures and lab activities, and their relevance to the larger picture of human evolution will be explored. Lectures and readings for each discovery will cover: 1) the research questions and strategies that led to the find; 2) the kinds of analyses that have yielded the most important interpretive conclusions about the find; 3) how this discovery reshaped views of the human past; 4) what new directions it catalyzed in human evolutions research. Class activities consists of lectures, field and laboratory exercises (reconstructions, measurements) using casts of a wide range of primate fossils, and field trip to locations. Students will learn how to classify and identify fossils. Graded work includes fieldwork and lab assignments, independent research assignments, quizzes and a final exam. Semesters offered- Fall and Spring. Components- laboratory, lecture, and recitation.
3 credits, Letter graded (A, A-, B+, etc.)

ANT 507: Archaeology of the Turkana Basin
This course familiarizes students with Africa Stone Age archaeology through class lectures and lab exercises. Students learn how archaeologists document the behavioral characteristics of early humans in Africa through study of material cultural evidence. During field excursions, they learn diverse methods of survey and excavation techniques appropriate for different sites and contexts. Primary areas of discussion throughout the coursework include the question of the cognitive status of early humans implied by their technologies and the evolution of human adaptation from an evolutionary perspective, exploring the relationship between stone tool technology, paleoenvironments, hominin species, and cognitive evolution. Graded work includes fieldwork and lab assignments, independent research assignments, quizzes and a final exam. Semesters offered- Fall and Spring. Components- laboratory, lecture, and recitation.
3 credits, Letter graded (A, A-, B+, etc.)

ANT 508: Paleoanthropological Field Methods in the Turkana Basin
This course is one of three that constitutes the Turkana Basin Institute Summer Field School, an opportunity to participate in all aspects of a paleoanthropological research project, focusing on practical aspects of vertebrate paleontology, geology, zooarchaeology and taphonomy. Students are trained in field reconnaissance, fossil survey, plotting, preservation, and collection, analysis and interpretation. Hands-on examination of fossils from Plio-Pleistocene or Holocene sites around Lake Turkana will teach students how human ancestors and other animals adapted to the environments around them. Experts from TBI, Stony Brook, and other institutions provide instruction in lectures, labs, and via fieldwork within the context of on-going projects.
3 credits, Letter graded (A, A-, B+, etc.)
May be repeated for credit.
ANT 509: Seminar in European Ethnography
Investigation and discussion of selected topics and problems concerning European societies and cultures. The perspectives of culture history and current fieldwork are employed. This course is offered as both ANT 509 and DPA 509.

*Fall, 3 credits, S/U grading*
*May be repeated for credit.*

ANT 510: Environments, Ecosystems and Evolution: Evidence from the Turkana Basin
An introduction to the ways scientists use the fossil and archaeological records to learn about past changes in Earth's climates and environments, and how humanity's ancestors responded to those changes physiologically and technologically. Interdisciplinary lectures will show evidence from the Turkana Basin's paleoenvironmental, fossil and archaeological records of the dynamic interactions between the climate, environment, local food webs, and ancient human populations. This background will prepare students for training in paleoanthropological and archaeological field methods.

*3 credits, Letter graded (A, A-, B+, etc.)*
*May be repeated for credit.*

ANT 511: Paleolithic Archaeology
A survey of the archaeological record of foraging peoples in Africa, Europe, and Asia prior to the emergence of agriculture. The course emphasizes particular problems including the relationship between behavioral and biological change, different adaptive strategies in temperate and tropical zones, the origins of modern humans, and the emergence of complex hunter-gatherer societies. This course is offered as both ANT 511 and DPA 511.

*Prerequisite: Any other archaeology course.*
*Fall, 4 credits, Letter graded (A, A-, B+, etc.)*

ANT 512: Comparative Civilizations
A comparative study of the processes of sociocultural evolution from the beginnings of sedentary life to the achievement of early civilization in the Near East, Egypt, the Indus Valley, China, Mesoamerica, and the Andean area. The seminar covers such topics as urbanization, demography, irrigation, craft specialization, militarism, and trade and exchange. This course is offered as both ANT 512 and DPA 512.

*Prerequisite: Graduate standing or permission of instructor.*
*Spring, 4 credits, Letter graded (A, A-, B+, etc.)*

ANT 513: Origins of Agriculture
This course will trace the history of anthropological thought on the origins of agriculture and will assess the evidence from the Old and New Worlds for this economic revolution. The course will not only explore areas where early agriculture is evidenced, but will also contrast these areas with those where agriculture was a later development. Emphasis will be on the environmental, technological, biological, social, and cultural processes associated with the "Neolithic Revolution." This course is offered as both ANT 513 and DPA 513.

*Fall, 4 credits, Letter graded (A, A-, B+, etc.)*

ANT 515: Theory and Method in Archaeology
Theoretical and methodological approaches employed in archaeology. The goals of the course are to provide an historical perspective on the growth of theory and method in archaeology and to examine in detail some of the pertinent research topics being studied today. This course is offered as both ANT 515 and DPA 515.

*Fall, 4 credits, Letter graded (A, A-, B+, etc.)*

ANT 516: Research Design in Archaeology
An examination of the ways in which archaeologists develop successful research strategies for arriving at answers to the key questions in the field. Students will analyze grant proposals that received funding from the major sources of funding for archaeology before developing research proposals of their own. The aim of the course is to provide the class with the skills needed to plan their future and compete successfully for funding both for their thesis research and in their future careers.

*Fall, alternate years, 4 credits, Letter graded (A, A-, B+, etc.)*

ANT 517: Primitive Technology
An introduction to the technology of hunter-gatherers. The course examines how archaeologists use both ethnographic and experimentation to shed light on prehistoric human technological adaptations. Techniques for making and using primitive tools are practiced in weekly laboratory sessions.

*Fall, alternate years, 4 credits, Letter graded (A, A-, B+, etc.)*
*May be repeated for credit.*

ANT 518: Lithic Technology
A detailed overview of the methods archaeologists use to extract behavioral information from prehistoric stone tools. The course examines raw material economy, technological strategies, tool use, and discard behavior. Analytical methods are practiced through the computer-assisted analysis of stone tools from simulated archaeological sites.

*Spring, 4 credits, Letter graded (A, A-, B+, etc.)*

ANT 519: Archaeozoology
An introduction to the study of animal bones from archaeological sites. Special emphasis is on identification of fragmented bone, identification of bone surface modification, calculation of indexes of abundance, and measurement and metrical analysis of mammal bone. Computer analysis is stressed, and the class seeks to synthesize traditional archaeozoology and actualistic studies. This course is offered as both ANT 519 and DPA 519.

*Fall, odd years, 4 credits, Letter graded (A, A-, B+, etc.)*

ANT 520: Principles of Social and Cultural Anthropology
Concepts and principles of social and cultural anthropology; historical background, structure and function, social processes, transactions, culture, communication, continuity, and other change; topics and problems of contemporary interest. Some ethnographic monographs are discussed in terms of their relevance to the general concepts and principles treated in the seminar. This course is offered as both ANT 520 and DPA 520.

*Fall, 4 credits, Letter graded (A, A-, B+, etc.)*

ANT 525: Research Areas in Anthropological Sciences
An overview of the current research areas of the Anthropological Sciences as represented in the Master's Program of the Department of Anthropology. All first-year students are expected to participate. Semesters offered: Fall 0-2 credits, S/U grading

*May be repeated 1 times FOR credit.*

ANT 526: The Use of Remote Sensing and GIS in Environmental Analysis
An introduction to the use of aerial and satellite imagery in environmental analysis and the manipulation of geographic data sets of all types using Geographic Information Systems. This course is designed to teach students in archaeology, physical anthropology, and related disciplines, how satellite imagery combined with various maps can be manipulated using GIS software to perform powerful geographic analysis. Although students are eventually likely to use these tools in many different parts of the world, this course focuses on Long Island as a research area, and each student designs and completes
a research project on a particular section of the area, focusing on the habitats of local wildlife, the locations of archaeological sites, coastal regimes, etc. This course presumes computer literacy and familiarity with database management. Offered as ANT 526 and DPA 526 or HPH 658.

ANT 527: Field Methods and Techniques in Archaeology

The course will be held during the summer only. It consists of field and laboratory work on an aspect of Long Island's archaeological heritage. Students' time is divided between surveying and excavation in the field and artifact analysis in the laboratory. Such techniques as map and air photo reading, survey, instruments, stratigraphy, conservation, typology construction, etc. are taught. Students are exposed to the full range of excavation, survey, and laboratory methods and techniques. This course is offered as both ANT 527 and DPA 527.

Prerequisite: Graduate standing or permission of instructor

Summer, even years, 3-9 credits, Letter graded (A, A-, B+, etc.)

ANT 536: Advanced Biostatistics and Phylogenetic Comparative Methods

The course will give an overview of fundamental biostatistical approaches in R. The first 6 courses give students in-depth knowledge about developing quantitative research designs using standard parametric, non-parametric and data reduction analyses in R. The next 8 courses introduce phylogenetic comparative analyses, including approached to account for phylogenetic relatedness in standard parametric tests and ways to infer the evolutionary history of traits using rate analysis. Students are expected to become proficient in R programming. The course will involve substantial preparation and included 10 take-home assignments.

3 credits, Letter graded (A, A-, B+, etc.)
May be repeated for credit.

ANT 550: Theory and Methodology in Primatology

Comprehensive overview of the theory and methodology used in the study of primate behavioral ecology. Includes ecological field methods, behavioral observations, analytical techniques, nonparametric statistics as well as planning, presenting, and reviewing research. Offered as both ANT 550 and DPA 550.

Fall, even years, 3 credits, Letter graded (A, A-, B+, etc.)

ANT 559: Archaeology of Food

Explores the archaeological study of food and foodways. The emphasis is on the social aspects of food, particularly its roles in past power structures, social relationships, conceptions of identity, ritual practices, and gender roles. Also covers the theoretical and methodological approaches archaeologists use to study food in the past.

Fall, alternate years, 3 credits, Letter graded (A, A-, B+, etc.)

ANT 560: Ancient Mesopotamia

An examination of the cultural history of Mesopotamia based on the archaeological, textual and art historical record. Focusing on the fourth through second millennia, this course investigates both the long term developmental process of this civilization, and ways to understand its settlement systems, urban structure, social and political organization, economic structure and the role played by religion.

Fall, alternate years, 4 credits, Letter graded (A, A-, B+, etc.)

ANT 561: Peasant Societies and Cultures

The concept of peasantry is examined from political, religious, and social class viewpoints as well as from the more traditional economic view. These agricultural peoples, who are essentially literate and preindustrial, are described and analyzed especially in relation to the national societies of which they form a part. This course is offered as both ANT 561 and DPA 561.

Spring, 3 credits, Letter graded (A, A-, B+, etc.)

ANT 562: Long Island Archaeology

Life on Long Island and the surrounding area from its first settlement by Native Americans 12,000 years ago until the end of the nineteenth century. Trends and changes in human behavior are studied in the context of environmental and cultural processes affecting all of northeastern North America.

Spring, 3 credits, Letter graded (A, A-, B+, etc.)

ANT 564: Primate Evolution

The taxonomic relationships and evolutionary history of primates as documented by their fossil record and structural and chemical evidence. Emphasis on primates prior to the origin of the human lineage. This course is offered as ANT 564, DPA 564 and HBA 564.

Spring, even years, 4 credits, Letter graded (A, A-, B+, etc.)

ANT 565: Human Evolution

A survey of the fossil record of hominid evolution through the Pliocene and Pleistocene with emphasis on the morphological structure and function of locomotor, masticatory, and neural systems. Includes utilization of comparative anatomical material and an extensive cast collection. This course is offered as ANT 565, DPA 565 and HBA 565.

Fall, even years, 4 credits, Letter graded (A, A-, B+, etc.)

ANT 567: Primate Behavior and Ecology

A comparative approach to the behavior and ecology of living lemurs, monkeys, and apes. Emphasis is placed on sociobiological theory; life history strategies; morphological adaptations; comparisons of primate communities in Asia, Africa, Madagascar, and South America; and primate conservation. This course is offered as both ANT 567 and DPA 567.

Fall, odd years, 4 credits, Letter graded (A, A-, B+, etc.)

ANT 568: Hunters and Gatherers

The course focuses on the relationship between ecology and adaptation to explore the cross-cultural diversity of hunter/gatherers. The first part of the course looks at a number of key theoretic issues and debates that surround the study of hunter/gatherers. Once this foundation is laid, students learn about modern and historic hunter-gatherers from all the major geographic regions of the world. This overview draws on studies from behavioral ecology, ethnoarchaeology and cultural anthropology. The focus of the course is both to explore hunter/gatherer variation in relationship to their environment, and to give students an appreciation of the ways in which hunter-gatherers have been historically documented. The course is designed to be applicable to archaeologists, anthropologists and to those in other disciplines who make inferences about past ways of life.

Spring, 3-4 credits, Letter graded (A, A-, B+, etc.)

ANT 573: Archaeology of Human Dispersals

A survey of the archaeological evidence for the dispersal of Homo sapiens during the Late Pleistocene epoch (128,000-130,000 years ago). Topics include African origin of Homo sapiens, dispersals into Eurasia, Australia, and the Americas, large mammal extinctions, origins of art, music, and symbolic behavior, emergence of hunter-gatherers.

Offered
**ANT 582: Comparative Anatomy of Primates**

The comparative anatomy of living primates. Laboratory work including evaluation of skeletal material and dissection (when possible) with emphasis on relating structural diversity to behavior and biomechanics. This course is offered as both ANT 582 and DPA 582.

4 credits, Letter graded (A, A-, B+, etc.)

May be repeated 2 times FOR credit.

**ANT 583: Human Demography**

The study of human demography has had a long standing focus in anthropology, archaeology, economics and sociology for the simple reason that the distribution and density of people fundamentally shapes many other aspects of the human condition. Human Demography gives students an overview of population dynamics both as they change through time and differ across cultures. The course starts with outlining the history of population studies. Following this introduction, the three major components of population change - fertility, mortality and migration - are explored in depth. We then survey the seminal transitions in human demographic history from hunting and gathering to domestication and through modern postindustrial times. Drawing from the ethnographic, human ecology, demographic and archaeological literature, students read and discuss human demography from a variety of perspectives. The course includes some simple computations and a lab.

Spring, 3-4 credits, Letter graded (A, A-, B+, etc.)

**ANT 585: Prehistoric Peoples of the Americas**

ANT 585 Prehistoric Peoples of the Americas

Life in the Americas from the first settlement at the end of the Ice Age until the arrival of the Europeans in the 15th and 16th centuries. The culture, history, and evolution of prehistoric peoples of North, Central, and South America are treated. Specific topics covered include settlement by North Americans, hunting-gathering lifeways, plant and animal domestication, the origins of village life, and state-level societies.

Spring, odd years, 3 credits, Letter graded (A, A-, B+, etc.)

**ANT 591: Professional Skills in the Anthropological Sciences, I.**

An overview of the skills necessary for scientific professionalism, with special reference to successful performance in the Anthropological Sciences. Topics covered in this course include: use of basic software tools, research design, data collection and management, dissertation proposal and journal article writing, oral and poster presentations, and professional conduct. This course is not an alternative to GRD 500. Recommended for students of G0 through G4 status. Permission by Instructor

0-1 credits, S/U grading

May be repeated for credit.

**ANT 592: Professional Skills in the Anthropological Sciences, II.**

A development of additional professional skills necessary to master research and teaching in the Anthropological Sciences including career options and employment. Topics in this course include: the dissertation writing process, review processes, job applications and negotiations, tenure process, and teaching strategies. Recommended for students of G5 status. Permission by Instructor

0-1 credits, S/U grading

May be repeated for credit.

**ANT 593: Ethics in the Anthropological Sciences**

This course familiarizes students with the major issues in the ethics of anthropological science, research and teaching. Students discuss scientific and academic values and how best to comply with them in academic, field, and laboratory environments. Overarching research ethics topics addressed include data management, scientific misconduct, plagiarism, authorship, and mentoring. This portion of the course incorporates videos and readings from GRD 500. Anthropology-specific topics include fieldwork, museum work, animal research, US and international laws (biodiversity; cultural & natural heritage), and public anthropology. Anthropological Sciences faculty with particular expertise in these various areas lead these discussions.

0-1 credits, S/U grading

May be repeated for credit.

**ANT 599: M.A. Thesis Research**

Fall, 0-6 credits, S/U grading

May be repeated for credit.

**ANT 602: Research Seminar in Anthropological Theory**

This course is offered as both ANT 602 and DPA 602.

Fall and Spring, 0-12 credits, S/U grading

May be repeated for credit.