

ANT

Anthropology, Cultural and Archaeology

ANT 504: Ecology: Linking People & Nature (emphasis Turkana Basin)

This course is one of five that constitute the Advanced Graduate Certificate in Human Origins at the Turkana Basin Institute in Kenya. With the world's longest sequence of datable deposits containing fossils of our ancestors, eastern Africa is the ideal place to examine humans' changing relations with our environment. This course familiarizes students with diverse ecological settings in the region today through field exercises in highland forests, low-altitude grasslands, and lacustrine and riparian settings. Students learn various methods for paleoenvironmental reconstruction, and practice integrating different kinds of paleoenvironmental evidence in field and laboratory facilities in Kenya. Examining modern vegetation and fauna in central and northwest Kenya shows students how human actions can degrade or conserve environments and resources in eastern Africa today.

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

ANT 505: Earth & Life Through Time: Vert Paleo (Turkana Basin)

This course is one of five that constitute the Advanced Graduate Certificate in Human Origins at the Turkana Basin Institute in Kenya. Vertebrate fossils are important sources of information about the appearance, evolution, and extinction of major organisms. As such, they provide a valuable window into 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 hominin remains. This course acquaints students with methods of vertebrate paleontology employed in different chronological contexts of the Turkana Basin and their use in addressing diverse theoretical questions.

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

ANT 506: Human Evolution and evidence from the Turkana Basin

This course is one of five that constitute the Advanced Graduate Certificate in Human Origins at the Turkana Basin Institute in Kenya. The Turkana Basin is home to many paleoanthropological discoveries that fundamentally reshaped ideas about human evolution. Important finds from the Turkana

Basin, including Nariokotome (Turkana boy) and KNM-WT17000 (the "Black Skull") will be highlighted in lecture and lab activities, and their relevance to the larger picture of human evolution will be explored. In addition to highlighting the key role that Turkana Basin fossils have played in human evolutionary studies, lectures, seminars, and labs will cover the complete span of our evolutionary history from Miocene apes and the earliest putative hominins to the evolution of modern humans. Field trips to discovery locations will provide students with the opportunity to understand the geological context of important fossils of the Turkana Basin.

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

ANT 507: Prehistoric Archaeology of Africa (emphasis Turkana Basin)

This course is one of five that constitute the Advanced Graduate Certificate in Human Origins at the Turkana Basin Institute in Kenya. Stone tools and other technologies enabled early hominins to become one of the few organisms that could purposefully change their environment to suit their needs, changing them from one among many African primates to the equivalent of a global geological force. This course traces the development of human technology where it first appears in Eastern Africa more than 3 million years ago. Course topics include the cognitive abilities of early humans implied by their technologies, early human adaptation and social behavior, and the inter-relationships between stone tool technology, paleoecology, and hominin biological evolution. Lectures and practical exercises teach students how to document the archaeological record and how to use it to test hypotheses about early human behavior. Field excursions teach archaeological survey and excavation techniques.

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 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 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 514: Human Osteology

A detailed study of the anatomy of the human skeleton with special emphasis on the interpretation of skeletal remains from archaeological contexts. Consideration is given to the growth, structure, and function of bones, and to forensic aspects such as the determination of age, sex, stature, and pathology from skeletal remains. Students conduct a research project on a human skeleton.

*3 credits, Letter graded (A, A-, B+, etc.)
May be repeated 2 times FOR credit.*

ANT 515: Approaches 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, 3 credits, Letter graded (A, A-, B+, etc.)

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

ANT 519: Zooarchaeology

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 zooarchaeological and actualistic studies. This course is offered as both ANT 519 and DPA 519.

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

0-1 credits, S/U grading

May be repeated 1 times FOR credit.

ANT 527: Field Methods and Techniques in Archaeology

An opportunity to participate in all aspects of an archaeological research project. Students

develop practical skills in excavation, and design and execute plans for recording, artifact retrieval, surveying, field sorting techniques, and interpretation. This course involves faculty-led excavation of a prehistoric or early historic site. This course is offered as both ANT 527 and DPA 527. Prerequisite: Graduate standing or permission of instructor

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

ANT 535: Ethnoarchaeology

Ethnoarchaeology uses observations of present-day peoples to inform archaeological inquiry. This course helps students to explore ways in which ethnoarchaeological data contribute to several aspects of archaeological research: hypothesis building, survey and excavation strategies, interpretation of site and artifact data, and understanding the causes and processes of human behavioral change. In addition to seminar discussions of theoretical issues and case studies, students complete a book review of a monograph-length ethnoarchaeological study, a practical exercise in collecting and interpreting ethnoarchaeological data, and a term paper.

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

ANT 536: Phylogenetic Comparative Methods for trait evolution

The course provides an overview of biostatistical approaches that are used to estimate phenotypic trait evolution and provides participants with a springboard to using these methods to answer their own research questions. This course focuses on analyses that use a phylogenetic tree and observed trait information from tip taxa (extant and/or extinct) to describe how traits have changed along the branches of a phylogeny. The course covers methods that account for phylogenetic relatedness in standard parametric tests and methods that use models of evolution to infer how traits have changed along branches of phylogeny. The course will involve substantial preparation and take-home assignments. Students will become proficient in R programming.

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

May be repeated for credit.

ANT 555: Ancient African Civilizations

The archaeology of Africa's later prehistoric and historic periods offers exciting contributions to global debates on the origins of agriculture and civilization. Covering the last 30,000 years, this course begins by examining the economic underpinnings of Africa's early complex societies: intensive hunting & gathering, animal domestication, and early farming. Detailed case studies of five ancient civilizations (Egypt, Aksum,

Jenne, Swahili, and Great Zimbabwe), and then explore distinct processes of prehistoric social change in different parts of Africa. The course concludes by discussing African archaeological heritage conservation, education and synthesis. Beyond these main themes, we develop additional units and discussions on topics of special interest to the students enrolled.

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

ANT 557: Building Bones: Bone Development and Evolution

An overview of the evolution, development, and growth of the skeleton, with a focus on mammals, primates, and humans. Students will review fundamental bone biology concepts, then read and discuss classic and current research on the evolution of bone development and the developmental basis for specific evolutionary changes in bone morphology. While much bone biology research has been completed in animal models, this course specifically builds a foundation for students to understand and critique current studies on the evolution and development of primate and human skeletal morphology. Within this context, students independently complete a literature review of the potential developmental and genetic basis for evolutionarily relevant variation of a skeletal phenotype, then propose research to help test these hypothetical relationships. Prerequisites: Instructor Consent

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 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. 4 credits, Letter graded (A, A-, B+, etc.) 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. 4 credits, Letter graded (A, A-, B+, etc.) 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 582: Comparative Primate Anatomy

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 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: Capstone Project

*Fall, 0-6 credits, S/U grading
May be repeated for credit.*

ANT 600: Practicum in Teaching

A specialized tutorial in which students work with / shadow an instructor for a given course to learn pedagogy, and practical and professional skills with regard to classroom instruction. Instructor Consent 0-3 credits, S/U grading

*0-3 credits,
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.

ANT 610: Individual Research

Research supervised by faculty. Students must have permission of instructor and enroll in appropriate section. This course is offered as both ANT 610 and DPA 610.

*Fall and Spring, 1-12 credits, S/U grading
May be repeated for credit.*

ANT 620: Research Seminar in Topical Problems

This course is offered as both ANT 620 and DPA 620.

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

ANT 630: Research Seminar in Physical Anthropology

This course is offered as both ANT 630 and DPA 630.

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

ANT 650: Research Seminar in Archaeology**ANT 680: Special Seminar**

Selected topics in cultural and social anthropology. Topics reflect current interests of faculty and graduate students. This course is offered as both ANT 680 and DPA 680.

*Fall and Spring, 1-3 credits, S/U grading
May be repeated for credit.*

ANT 800: Summer Research

This course is offered as both ANT 800 and DPA 800.

*S/U grading
May be repeated for credit.*