

DPA

Doctoral Program in Anthropological Sciences

DPA 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.)

DPA 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.)

DPA 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. Prerequisites: Previous course in human or vertebrate anatomy and permission of instructor. Alternate years, 4 credits, Letter graded (A, A-, B+, etc.)

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

May be repeated 2 times FOR credit.

DPA 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.)

DPA 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.)

DPA 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.)

DPA 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.)

DPA 525: Research Areas in Anthropological Sciences

An overview of the current research areas of the Anthropological Sciences as represented in the IDPAS. All first-year students of Anthropological Sciences are expected to participate. Semesters Offered: Fall Grading: S/U

0-1 credits, S/U grading

May be repeated 1 times FOR credit.

DPA 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.)

DPA 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.)

DPA 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.

DPA 541: Evolutionary Anatomy

A lecture and laboratory with emphasis on dissection of the entire human body. Includes functional and comparative anatomy with special emphasis on the musculoskeletal

morphology of humans and higher primates. This course is offered as both DPA 541 and HBA 541. There is a lab fee associated with this course. 8 credits, Letter graded (A, A-, B+, etc.)

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

DPA 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.)

DPA 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.)

DPA 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.)

DPA 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.)

DPA 563: Aspects of Animal Mechanics

An introduction to biomechanics. Covers freebody mechanics and kinetics as applied to vertebrate locomotion. Considers the structure and physiology of muscle as it relates to adaptations of the musculoskeletal system. This course is offered as both HBA 563 and DPA 563.

Prerequisites: Introductory physics and biology or permission of instructor.

Spring, odd years, 2 credits, Letter graded (A, A-, B+, etc.)

DPA 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.)

DPA 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.)

DPA 566: Studies in Functional Morphology

Introduction to the theory and methods of functional morphology. Various methods of analysis and the application of experimental techniques such as electromyography or bone

strain analysis are discussed as they pertain to the understanding of the interaction between form and function. Special emphasis is placed on the analysis of human and nonhuman primate morphology, and the application of this analysis to interpretation of the fossil evidence for human and nonhuman primate evolution. This course is offered as both HBA 566 and DPA 566.

Prerequisite: Permission of instructor.

Spring, even years, 2 credits, Letter graded (A, A-, B+, etc.)

DPA 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.)

DPA 582: Comparative Primate Anatomy

The comparative anatomy of living primates. Laboratory dissection with emphasis on relating structural diversity to behavior and biomechanics. This course is offered as both HBA 582 and DPA 582. 4 credits, Letter graded (A, A-, B+, etc.)

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

DPA 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.

DPA 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.

DPA 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.

DPA 600: Practicum in Teaching

May be repeated for credit.

DPA 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.

DPA 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.

DPA 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.

DPA 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.

DPA 650: Research Seminar in Archaeology

DPA 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.

DPA 699: Dissertation Research on Campus

Prerequisite: Must be advanced to candidacy (G5). Major portion of research must take place on SBU campus, at Cold Spring Harbor, or at the Brookhaven National Lab.

Fall, Spring, and Summer, 1-9 credits, S/U grading

May be repeated for credit.

DPA 700: Dissertation Research off Campus - Domestic

Prerequisite: Must be advanced to candidacy (G5). Major portion of research will take place off-campus, but in the United States and/or U.S. provinces. Please note, Brookhaven National Labs and the Cold Spring Harbor Lab are considered on-campus. All international students must enroll in one of the graduate student insurance plans and should be advised by an International Advisor.

Fall, Spring, 1-9 credits, S/U grading

May be repeated for credit.

DPA 701: Dissertation Research off Campus - International

Prerequisite: Must be advanced to candidacy (G5). Major portion of research will take place outside of the United States and/or U.S. provinces. Domestic students have the option of the health plan and may also enroll in MEDEX. International students who are in their home country are not covered by mandatory health plan and must contact the Insurance Office for the insurance charge to be removed. International students who are not in their home country are charged for the mandatory health insurance. If they are to be covered by another insurance plan they must file a waiver by second week of classes. The charge will only be removed if other plan is deemed comparable.

All international students must received clearance from an International Advisor.

Fall, Spring, 1-9 credits, S/U grading

May be repeated for credit.

DPA 800: Summer Research

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

S/U grading

May be repeated for credit.