Undergraduate Courses of Instruction and Research
Evolutionary Biology of the Human Species

Courses that fulfill the 20 point requirement in biological anthropology for majors

EEEB UN1010 **Human Origins & Evolution** 3 pts. *J. Shapiro.* Course fee: $25.
This is an introductory course in human evolution. Building on a foundation of evolutionary theory, students explore primate behavioral morphology and then trace the last 65 million years of primate evolution from the earliest Paleocene forms to the fossil remains of earliest humans and human relatives. [Taught every fall.] Students must register for a discussion/labs section.

EEEB UN1011 **Behavioral Biology of the Living Primates** 3 pts. *M. Cords.* Lab fee: $10.
Study of non-human primate behavior from the perspective of phylogeny, adaptation, physiology and anatomy, and life history. Focus on the four main problems primates face: finding appropriate food, avoiding being eaten themselves, reproducing in the face of competition, and dealing with social partners. Registration for recitation section required. [Taught every spring.]

EEEB UN3204 **Dynamics of Human Evolution** 4 pts. *J. Shapiro.*
Prerequisites: EEEB UN1010 (Human Origins & Evolution) or ANTH UN1007 .
Seminar focusing on recent advances in the study of human evolution. Topics include changing views of human evolution with respect to early hominin behavior, morphology, phylogeny and evolutionary theory. Maximum enrollment 12. (Seminar)
[Taught in rotation with The Neandertals --one is taught every other spring.]

EEEB UN3208 **Explorations in Primate Anatomy** 3 pts. *J. Shapiro.*
Prerequisites: EEEB UN1010 or UN1011 or instructor approval.
Introductory laboratory course in primate skeletal anatomy. From tarsiers to talapoins, guenons to gibbons, through hands-on expertise students explore the amazing range and diversity of the living members of this order.
Enrollment limited to 14. [Taught every other year.]
**Students may take this before/after forensic osteology or skeletal biology though ideally, it would precede skeletal biology

EEEB UN3215 **Introduction to Human Osteology** 3 pts. *J. Shapiro.* Prerequisites: None.
An exploration of the hidden clues preserved in the human skeleton. Bones record growth, aging, disease, and activity, offering a unique window into the human experience. In this hands-on laboratory course, we will explore the fundamentals of human osteology including ethics, the identification of bones and major landmarks, methods for assessing age and biological sex, and the ways disease, trauma, and culture may leave lasting signatures on the skeleton. No prior experience with skeletal anatomy required. Enrollment limited to 15. [Taught every other spring.]
Students may take before/after primate anatomy and before skeletal biology. You **<u>may not</u> take this after either semester of group ind. study in postcranial bones/bones of the skull

EEEB UN3220 **The Evolution of Human Growth and Development** 3 pts.
Prerequisites: EEEB UN1010 or ANTH UN1007 or Instructor permission.
This course explores central issues in human growth and development from birth through senescence. Emphasis will be placed on the factors responsible for the variation in current human growth patterns as well as the evolutionary divergence of a uniquely human pattern from our closest living and fossil relatives. [Optimally taught every other spring.]

EEEB UN3240 **Challenges and Strategies of Primate Conservation** 3 pts. *A. Morales Jimenez*
Prerequisites: EEEB UN1010 or EEEBUN1011 Behavioral Biology of Living Primates.
This course examines the central issues relating to conservation of wild primates and explores strategies and solutions for preserving these endangered populations. Through the analysis of the ecological and social traits linked to vulnerability and the direct and indirect threats from human activities, students will gain a practical understanding of how to develop successful, sustainable, and practical conservation strategies. [Taught every other fall.]

EEEB UN3910 **The Neandertals** 4 pts. J. Shapiro
Prerequisites: EEEB UN1010 or ANTH UN1007
One hundred and fifty years after discovery Neandertals remain one of the most enigmatic hominin taxa. What do we understand today about their biology, subsistence, culture, cognitive abilities and eventual fate? Are they simply extinct relatives or do their genes continue in many of us today? In this seminar students critically examine the primary research as we attempt to find answers to some of these questions. (Seminar)
[Taught in rotation with Dynamics of Human Evolution--one is taught every other spring.]

EEEB UN3940 **Current Controversies in Primate Behavior and Ecology.** 4 pts. *M. Cords.*
Enrollment limited to 12. Prerequisite: EEEB UN1011 or the equivalent. Critical in-depth evaluation of selected issues in primate socioecology, including adaptation, sociality, sexual competition, communication, kinship, dominance, cognition, and politics. Emphasizes readings from original literature. (Seminar) [Taught every other fall]

EEEB UN3970 **Biological Basis of Human Variation.** 4 pts.
Enrollment limited to 12. This course explores the biological evidence for modern human genetic diversity at multiple levels (sex, geography, etc.). Student are immersed in the primary literature of the field as they examine patterns of both the past and the present. (Seminar)
[Taught intermittently/often in rotation with Human Adaptation.]

EEEB UN3993-3994 **EBHS Senior Thesis Seminar** 3 pts each term (both semesters required) *J. Shapiro*
This is a year-long course in which EBHS majors (and even interested concentrators) develop a research project and write a senior thesis. Students may undertake original research in the lab/field setting or they may complete a library-based analysis. A thesis is <u>not</u> required for this major though all who are interested in taking on this challenge are encouraged to do so. Requires permission of the major advisor. (Seminar) [Taught every year]

EEEB UN3997.002 (fall)-UN 3998.002(spring) **Independent Study.** 1-3 pts. *J. Shapiro*
Students conduct research in under supervision of a faculty mentor. The topic and scope of the research project must be approved before the student registers for the course.

EEEB GU4015 **Animal Communication: A Primate Perspective** 3pts.
Prerequisites: EEEB UN1010 or EEEBV1011 Behavioral Biology of Living Primates or Instructor permission.
Animals employ a staggering diversity of sounds, gestures, and chemicals to communicate. This course examines the four primary signal systems--vocal, visual, chemical, and tactile--used by primates and the various ecological, social, and physiological factors that relate to their evolution. Using current research, historical perspectives, and hands-on lab exercises, students will explore the central issues of animal communication as they relate to primates.
[Due to low enrollments, uncertain if it will be taught again. It may change to a broader animal communication course with 1/3 focus on primates]

EEEB GU4340 **Human Adaptation** 3 pts. Prerequisites: EEEB UN1010 or ANTH UN1007 or Instructor permission.
This course explores human adaptation from a biological, ecological and evolutionary perspective. From our earliest hominin ancestors in Africa to our own species' subsequent dispersal throughout the world, our lineage has encountered innumerable environmental pressures. Using morphological, physiological and behavioral/cultural evidence, we will examine the responses to these pressures that helped shape our unique lineage and allowed it to adapt to a diverse array of environments.
[Likely to be taught in rotation with Biological Basis of Human Variation (seminar) depending on student interest. This would mean the course is taught once in four years.]

EEEB GU4350 **Primate Sexuality** 3pts. Usually-- *A. Morales Jimenez*
Prerequisites: EEEB UN1010 or EEEBV1011 Behavioral Biology of Living Primates or Instructor permission.
In this course we take an integrative and comparative approach to understanding the sexual lives of primates. Focusing on mating and reproductive behavior with an explicitly evolutionary perspective, we will identify the fundamental principles of how and why selection has favored particular behaviors and morphologies in different primate species. [Taught every other year]

EEEB GU4370 **Parenting Like A Primate: The Evolution of Parental Care**. 3pts *A. Morales Jimenez*
Humans, like other animals, have evolved strategies of parental care, which include traits and trade-offs that enhance development and survival of offspring at the expense of parents. This course addresses questions such as: Why do we care for offspring? What physiological and genetic mechanisms underlie parental behavior? What drives variation in parental care strategies? We will analyze the diverse array of social and mating systems along with parental care strategies, focusing on primates including humans.
[Optimally will be taught every other spring.]

EEEB GU4700 **Race: The Tangled History of a Biological Concept.** 4 pts. *J. Shapiro*.
From Aristotle to the 2030 US Census, this course examines the history of race as a biological concept. It explores the complex relationship between the scientific study of biological differences--real, imagined, or invented--and the historical and cultural factors involved in the development and expression of "racial ideas." Scientific background not required. Enrollment limited to 15. [Though it is 4points, it is not a seminar] [Taught every other year]

Courses currently on hiatus as Prof. Holloway is officially retired.
Likely to continue to be taught as Group Independent Study for 1-3 points
GU 4147 **Human Skeletal Biology I (Skull)**
GU 4148 **Human Skeletal Biology II (Postcranial Bones)**

For 2026-2027 Group Independent Study in Postcranial Osteology.
Students can take them for 1, 2, or 3 points depending on the amount of work. Moving forward, we might only run one a year or wait and run the sequence every other year depending on interest (at present only 3-4 per term).
Run as a hands-on lab, these courses involve intensive study of human skeletal remains. No perquisites but given the sensitivity and ethical issues involved in such study, only mature and committed students will be permitted to enroll. Recommended for biological anthropology, archaeology, premedical, and biology students interested in the human skeletal system.

Relevant EEEB Courses that Count Toward the Total Point Requirement for the Major/Concentration:

***Also see the full listing of E3B Undergraduate Courses**
There are also many other courses both in E3B in other departments that can count for the major. Consult the "courses from related spheres" document for the complete list.
[Note: These courses do not count for the required 20/15 points of "bioanthro" points]

EEEB UN2001 **Environmental Biology, I: Molecules to Cells**. 3 pts. Introductory biology course for majors in biology or environmental biology, emphasizing the cell and molecular context of modern biology. [Taught every fall.] Though optimal as a sequence, can be taken before or after UN2001.

EEEB UN2002 **Environmental Biology**, **II: Organisms to Ecosystems.** 4 pts.
Second semester of introductory biology sequence for majors in environmental biology and environmental science, emphasizing the ecological and evolutionary aspects of biology. Also intended for those interested in an introduction to the principles of ecology and evolutionary biology. [Taught every spring.] Though optimal as a sequence, can be taken before or after UN2001.

EEEB UN3001 **The Saga of Life.** ?3/**4 points.** *S. Naeem*
E3B's mission is to educate a new generation of scientists and practitioners in the theory and methods of ecology, evolution, and environmental biology. Our educational programs emphasize a multidisciplinary perspective to understand life on Earth from the level of organisms to global processes that sustain humanity and all life. (Seminar) [Typically intermittently]

EEEB UN3020 **Introduction to Statistics for Ecology and Evolutionary Biology** *3 pts.*
S. Foerster
Prerequisites: No knowledge of statistics required though some background in ecology and/or evolutionary biology is recommended,. An introduction to the theoretical principles and practical application of statistical methods in ecology and evolutionary biology. The course will cover the conceptual basis for a range of statistical techniques through a series of lectures using examples from the primary literature. Students will learn R. The application of these techniques will be taught through the use of statistical software in computer-based laboratory sessions. [Taught every fall]

EEEB UN3087 **Conservation Biology.** 3 pts. *[Adjunct Faculty]*
Prerequisite: Introductory organismal biology course, ideally EEEB UN2002; **although recommended, prerequisite waived for EBHS majors and concentrators.
Applications of biological principles to the conservation of biodiverstiy. Because conservation biology is a cross-disciplinary field, some of the social, philosophical, and economic dimensions of biological conservation are also addressed. [Taught every spring.]

EEEB UN3919 **Trading Nature: A Conservation Biology Perspective.** 4 points**.** *M. Blair*
This course explores the scientific and theoretical conceptualization of nature as a market commodity, through the lens of conservation biology. Students will engage in critical analysis of the 'traditional' forms in which biodiversity has been appropriated as inputs into markets such as fisheries, resource extraction, bushmeat and medicine, as well as new market environmentalism. (Seminar) [Optionally taught every other year depending on the schedule of Dr. Mary Blair of the AMNH. Can be used for conservation requirement]

EEEB GU4126 **Introduction to Conservation Genetics** 3 pts.
Prerequisites: A basic knowledge of genetics and mathematics is assumed. Although this is a graduate-level course, qualified undergraduates are welcome. In this course, we will use evolutionary genetic principles and population genetic models to describe the extent and distribution of genetic variation in populations and species, and determine ways to conserve it. A basic knowledge of genetics and mathematics is assumed. (Seminar)
[Optimally taught every other year]

EEEB GU4129 **Zoo Conservation 3pts.**
No prerequisites. This course is designed to introduce students to the current and future role of zoos and ex-situ animal conservation programs in wildlife conservation. The history, the function and the goals of modern zoological collections will be presented, and the ethics and standards of zoos and aquariums will be discussed. Students will learn the conservation ambitions and achievements of zoological parks in the context of conservation biology. [Taught every other year] (Seminar).

EEEB GU4200 **Introduction to Mammalogy** 3 pts. *S. LaPoint*
Prerequisites: Introductory course in biology or evolution or instructor permission
This taxon-based course provides students with a basic understanding of the diverstiy and natural history of the mammals. Broad coverage of mammalian biology includes: morphological adaptations, evolutionary history, ecology, social behavior, biogeography, and conservation. (Seminar). [Taught every other year]

EEEB GU4201 **Ecology, Behavior and Conservation of Mammals 3 pts.** *S. LaPoint*
Prerequisites: A course in either organismal biology, evolution, ecology or permission of the instructor if GU4200 was not taken.
This course examines the wide-ranging aspects of features of mammalian natural history, behavior and ecology, and considers the implications of these features on the conservation status of particular mammal taxa for the future. We will also explore particular conservation challenges for mammals such as bats, grazing mammals, and large carnivores in increasingly human-dominated landscapes. This course will be a combination of lecture and student led discussions related to the conservation issues facing mammals today. (Seminar).
Counts for EITHER the conservation requirement OR the behavior requirement but not both.
[Taught every other year]

Theoretical Foundation Courses from Archaeology (partial list):

Archaeology ***[All Archaeology courses have a $25 lab fee]***
ANTH UN1007 **The Origins of Human Society.** 3 pts. *C. Sturm*
An archaeological perspective on the earliest forms of human culture in the prehistoric past. Topics include hominids sharing food; peoples living in a variety of environments from caves to deserts with economies ranging from foraging to early agriculture; and the origins of sedentism and social complexity. [Taught every fall] **Students are advised NOT to take this the same semester as UN1010 Human Origins & Evolution

ANTH UN2014 **Archaeology and Africa: Changing Perceptions of the African Past.** 3 pts. *Z. Crossland.* This course explores the changing perspectives on African archaeology over the last two centuries. We will trace the history of archaeological fieldwork in Africa, looking at archaeology's relationship to colonialism and European narratives of world history. These will be compared with the ways in which archaeology has been drawn upon in the post-colonial period within nationalist, Afrocentric and postcolonial accounts. Using a variety of archaeological case studies we will look at the key issues in African archaeology today, and assess how these debates have been informed by the particular history of archaeological interpretation in Africa. Topics will include the archaeology of human origins and dispersal out of Africa, the development of farming and the use of metals, the archaeology of African kingdoms and state formation, the colonial encounter, and the archaeology of the African Diaspora. Also fulfills Global Core requirement. [Taught intermittently]

ANTH UN2028 **Think Like an Archaeologist.** 3 pts. *H. Chazen*
This course provides a comprehensive introduction to archaeology. We start with a critical overview of the origins of the discipline in the 18th and 19th centuries, and then move on to consider key themes in current archaeological thinking. These include: time and the past: what is the difference? What are archaeological sites and how do we "discover" them? How is the relationship between the living and the dead negotiated through archaeological practice? What are the ethical issues? How do we create narratives from archaeological evidence? Who gets written in and out of these histories? Archaeology, film and media. [Usually taught every spring]

ANTH UN2031 **Corpse Life** 4 pts. *Z. Crossland.*
This class explores the ways in which archaeologists use the dead body to explore past beliefs and social practices, critically assessing these approaches from the broader perspective of anthropological and sociological theories of the body's production and constitution. We'll look at the ways in which social status, gender and personhood are expressed through the dead body and through practices of body modification and display. In this context we'll also consider the social relations of archaeological exhumation, the conflict that can arise over the excavation of human remains, and their treatment as courtroom evidence in forensic archaeology.
[Generally taught every other year though recently intermittently]

ANTH UN3007 **Archaeology before the Bible** 3 pts. *B. Boyd*.
This course provides a critical overview of prehistoric archaeology in the Near East (or the Levant - the geographical area from Lebanon in the north to the Sinai in the south, and from the middle Euphrates in Syria to southern Jordan). It has been designed to appeal to anthropologists, historians, and students interested in the Ancient Mediterranean and Middle Eastern Studies. The course is divided into two parts. First, a social and political history of prehistoric and "biblical" archaeology, emphasizing how the nature of current theoretical and practical knowledge has been shaped and defined by previous research traditions and, second, how the current political situation in the region impinges upon archaeological practice. Themes include: the dominance of "biblical archaeology" and the implications for Palestinian archaeology; Islamic archaeology; the impact of European contact from the Crusades onwards; the development of prehistoric archaeology. [Note: This is not a course in Biblical Archaeology] [Taught intermittently]

ANTH UN3823 **Archaeology Engaged: Past in the Public Eye**. 4 pts. *T. D'Altroy*
15 max. This course provides a panoramic, but intensive, inquiry into the ways that archaeology and its methods for understanding the world have been marshaled for debate in issues of public interest. It is designed to examine claims to knowledge of the past through the lenses of alternative epistemes and a series of case-based problems that range from the academic to the political, legal, cultural, romantic, and fraudulent.
[Uncertain if taught every year or in alternate years] (Seminar)

ANTH GU4345 **Neandertal Alterities** 4 pts. *B. Boyd*
Using "The Neanderthals" partly as a metaphorical device, this course considers the anthropological, philosophical and ethical implications of sharing the world with another "human" species. Beginning from a solid grounding in the archaeological, biological and genetic evidence, we will reflect critically on why Neanderthals are rarely afforded the same reflexive capacities, qualities and attributes – agency – as anatomically modern humans, and why they are often regarded as "lesser" or nonhuman animals despite clear evidence for both sophisticated material and social engagement with the world's human and nonhuman phenomena. (Seminar) *Students can not take this course as well as the EEEB Neandertal Seminar [Typically taught every other year]

ANTH GU4481 **Science and Art in Archaeological Illustration 4pts.** *Z. Crossland*
Archaeology has provided a rich imaginative resource for many artists, who have found inspiration in the discipline's material engagement with the past, its evocation of absent presences, and its strange juxtaposition of practical activity and textual narrative. In this course we continue the exploration of art's intersections with archaeology, but we take an alternate starting point. Scientific illustration has been a key part of archaeological work since the discipline's origins in the antiquarian investigations of the 16th and 17th centuries. These antiquarian records drew upon techniques that were elaborated during the Renaissance and many of these illustrative forms remain relevant today. [Usually taught every other year]