Human Evolutionary Biology (HEB)

Evolutionary theory is a pillar of modern science and provides a powerful framework for investigating questions about why humans are the way they are. Human evolutionary biologists seek to understand how evolutionary forces have shaped our anatomy, physiology, and behavior. Research in human evolutionary biology influences the practice of medicine, and also impacts economics, psychology, political science, religion and literature.

Examples of questions in which we are interested:

- Why do humans walk upright?
- Are humans adapted to eating cooked food?
- What is the role of the gut microbiome in energy metabolism?
- How did human societies expand from small hunter-gatherer bands to vast nation-states?
- Are culture and language unique to our species?
- What are the genetic bases for human traits?
- When, where, and how did *Homo sapiens* evolve?
- How has the environment influenced humans in the past and present?

Research: This is an exciting time to tackle questions of how evolution made us human, and research in HEB provides you the opportunity to learn and contribute. HEB faculty lead projects spanning a spectrum of interests and methods, including analyses of Peabody Museum skeletal collections, fieldwork in the rainforests of Uganda, and lab work in our cutting edge facilities. Professors work closely with undergraduates for senior theses, research seminars, and other projects. Examples of research opportunities in HEB include:

- human and primate nutrition
- human cognition
- reproductive and behavioral endocrinology
- cultural evolution
- evolutionary genetics and phylogenetics
- human anatomy
- primatology
- paleoanthropology
- human behavioral ecology

Options: HEB provides a general foundation in human and organismic biology as part of the Life Sciences cluster of concentrations. Students interested in human and non-human primate cognition from the perspective of human evolutionary biology may pursue a Mind/Brain/Behavior (honors thesis) track.

We offer students three degree options: the basic non-honors degree, thesis honors, and non-thesis honors. All students take the LS 1a / LPS A, LS 1b sequence (or LS 50ab), a sophomore tutorial, and a junior research seminar.

Contact Information and Advising:

Associate Concentration Advisor	Associate Concentration Advisor	Director of Undergraduate Studies
Dr. Bridget Alex balex@fas.harvard.edu Peabody Museum 53B	**Dr. Neil Roach** ntroach@fas.harvard.edu Peabody Museum 46	**Professor David Pilbeam** pilbeam@fas.harvard.edu Peabody Museum 51B

Course Sequence Recommendations for Students Considering the Human Evolutionary Biology Concentration

Required Courses:

Fall Semester Freshman	Spring Semester Freshman	Spring Semester Sophomore	Junior Year
Life Sciences 1a or LPS A, or LS 50a	**Life Sciences 1b, or LS 50b**	**Sophomore Tutorial**	**Research Seminar**

Students should aim to complete either the LS 1a/LPS A and LS 1b sequence, or LS 50ab, during their first year. Concentrators are required to complete the Sophomore Tutorial in HEB, usually during Sophomore Spring. Junior year, students normally take a Junior Research Seminar that aligns with their interests (see website for course listings).

Along with the required courses above, students must take a minimum of nine additional courses. Five of these must be HEB courses*, and the remaining four are approved courses in either HEB or related fields, such as Math/Statistics, Physical Sciences, Chemistry, Archaeology, Psychology, Organismic & Evolutionary Biology, Molecular & Cellular Biology, etc. See the HEB website (below) for more information on qualifying courses.

*Note: three of the HEB courses must fulfill distribution requirements for Evolution, Anatomy/Physiology, and Behavior. Qualifying courses can be found on the HEB website.

Freshmen should take the online Biology and Chemistry placement exams for placement recommendations.

See the HEB section of the Life Sciences website for more information: **http://lifesciences.fas.harvard.edu/heb**

Gateway courses in HEB: Intro-level courses that give you a good idea of what HEB courses are like:

FALL 2019:

- Life Sciences 2: Evolutionary Human Physiology and Anatomy
- HEB 1280: Human Nature

SPRING 2020:

- HEB 1330: Primate Social Behavior
- SLS 16 or HEB 1386: Human Evolution and Human Health
- HEB 1420: Human Evolutionary Anatomy