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, our physiology, and our patterns of behavior. Research in human evolutionary biology profoundly influences medical science and 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 uniquely human?
- What are the genetic bases for uniquely human traits?
- When, where, how and why did *Homo sapiens* evolve?
- What has been the impact of environmental change on our human ancestors?

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, ranging from research in the high-tech labs in the Peabody Museum, to field-based research in the rainforests of Western Uganda, to work requiring sample collection in the field and analysis in the lab. Our faculty work closely with undergraduates on research projects of all kinds, for senior theses, research seminars, and tutorial classes. 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 interesting in addressing questions about 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:

Co-Head Tutor / Advisor	Associate Concentration Advisor	Co-Head Tutor
Dr. Carole Hooven hooven@fas.harvard.edu Peabody Museum 52F (617) 496-3809	**Dr. Bridget Alex** balex@fas.harvard.edu Peabody Museum 53B (617) 495-5703	**Professor Richard Wrangham** wrangham@fas.harvard.edu Peabody Museum 50B (617) 495-5948

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 Freshman year. Concentrators are required to complete the Sophomore Tutorial in HEB, usually taken during Sophomore Spring. In the Junior year, students 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 detailed 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**

Portal courses in HEB: A number of introductory courses in HEB are appropriate for freshmen, and will help to focus your interests:

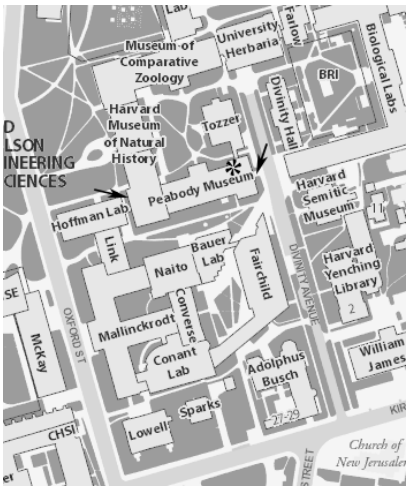
- Freshman Seminars taught by any HEB faculty member

FALL 2017:

- Life Sciences 2: Evolutionary Human Physiology and Anatomy
- HEB 1310: Hormones and Behavior

SPRING 2018:

- HEB 1330: Primate Social Behavior
- SLS 16: Human Evolution and Human Health



Directions to the HEB advisors' offices (Peabody Museum):

- If entering from 24 Oxford St, take elevator to the 5th floor, turn left (passing through Archaeology) and left again through the open door that leads down a long hallway to the HEB lounge.
- If entering from 11 Divinity Ave, take elevator or stairs to the 5th floor and turn left into the HEB lounge.
- Dr. Carole Hooven's office is Peabody Museum 52-F, and Dr. Bridget Alex's office is 53-B, both located off of the lounge area.