Notes for Pre-Concentrators Considering Human Evolutionary Biology (HEB)

Evolutionary theory provides a powerful framework for investigating questions about why humans are the way they are. Human evolutionary biologists are driven to understand how evolutionary forces have shaped us--our biology, our patterns of behavior, and our culture. Research in human evolutionary biology is increasingly influencing medical science, through the nascent field of evolutionary medicine, and other areas such as economics, linguistics, psychology, and political science.

This is an exciting time to tackle questions of how evolution made us human. Research opportunities in HEB are quite varied and may involve work in the high-tech labs in the Peabody Museum, field-based research in the rainforests of Western Uganda, or a combination of field- and lab-based research.

Examples of questions in which we are interested:

- Why do humans walk upright?
- Are humans adapted to eating cooked food?
- How does human culture influence our biological evolution?
- How are humans different from non-human primates?
- What are the genetic bases for these uniquely human traits?
- When, where, how and why did *Homo sapiens* evolve?
- What is the role of hormones in behavior and development?

Research opportunities include:

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

Contact Information and Advising:
During the freshman year, we encourage you to enroll in courses that will enable you to determine if you are interested in HEB and will help prepare you for future semesters. Advisors in HEB are happy to meet with you to answer your questions about the concentration, including course selection.

Assistant Director of Undergraduate Studies, Concentration Advisor	Associate Concentration Advisor	Head Tutor
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Course Sequence Recommendations for Students Considering Human Evolutionary Biology

Required Courses:

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

Life Sciences: HEB concentrators are required to take LS 1a or LPSa in the fall, which provide an introduction to chemistry and molecular and cellular biology, and LS 1b in the spring, which covers genetics, genomics, and evolution. There are no prerequisites for either class. These courses are normally completed by the end of the fourth semester.

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 2015:

- Life Sciences 2: Evolutionary Human Physiology and Anatomy
- HEB 1290: Cultural Evolution

SPRING 2016:

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

HEB sub-field courses: Students must take five HEB sub-field courses, three of which must include one approved course in each of the following areas: evolution; physiology/anatomy; and behavior (either human or primate). Students must also take a Junior Research Seminar in their Junior year. See the course list (http://lifesciences.fas.harvard.edu/heb-course-list) for more details.

Related Science Courses: HEB concentrators must take four courses in related fields. These can include up to three courses from Physical Sciences 1-3; up to two courses of Math and/or Biostatistics; one course of organic chemistry; and up to two approved courses in HEB, OEB, MCB, Psychology or Archaeology (see an advisor for approved courses).

Senior Thesis: Not required, but Honors candidates may choose a thesis (or non-thesis) track.

Advanced Placement Credits: AP credits may not be used to fulfill concentration requirements in HEB.