

EEB 460b Studies in Evolutionary Medicine. Also EMD 695b.

Applications are due by midnight January 15th, 2017; they should be emailed to stephen.stearns@yale.edu. Early applications are encouraged.

Your application should consist of a one page CV, a statement of no more than 250 words explaining why you are interested in the course and where you see it fitting in your career plans, an unofficial academic transcript reporting your grades, and a brief statement of your preliminary ideas for a potential summer research project, including potential mentors/hosts.

Class meets TTh 4:00-5:15; it only meets on Thursdays when we have a visitor.

Faculty: From E&EB – Steve Stearns, Paul Turner.
From YSPH – James Childs, Virginia Pitzer.

The course is capped at 15.

Seminar with student presentations; attendance at guest seminars required

Prerequisites: A course in evolutionary biology and a course in genetics or equivalents; at least junior standing.

This two-term course begins in January. Students apply the principles of evolutionary biology to issues in medical research and practice by presenting and discussing original papers from the current research literature. Students develop a research proposal based on one of their own questions in spring term, spend the summer on a research project related to their research proposal, and write a paper based on the results of their research in fall term. Credit and grades are awarded for each term. Only students who have engaged in summer research projects may enroll in the fall term. Admission is by competitive application only. This course is intended as an orientation to the field for beginning PhD students in FAS and YSPH and as a capstone course for highly qualified undergraduate and MPH students, primarily those interested in going on to graduate school, medical school, and MD/PhD programs. Covering those areas of medical research and practice where evolutionary biology sheds useful new light, it brings students to the leading edge of research by having them present and discuss papers from the current literature, attend and discuss lectures by prominent scientists, carry out a summer research project, and write up their research results as a scientific paper with the support and feedback of the course instructors.

Special features:

1. 3 visiting seminars per semester. Students are required to attend the seminars, participate in discussion, and attend dinner with the speaker in a college. Visitors in Spring 2017: Gregg Gonsalves (YSPH, infectious disease), January 26th. Paul Schmid-Hempel (ETH Zurich, host-parasite interactions), February 17th. Rick Bribiescas (Yale Anthropology, reproduction), March 2nd. Michael Hochberg (Montpellier, cancer), March 30th. Gunter Wagner (Yale, reproduction), April 20th.
2. Summer research projects hosted in labs at Yale and as arranged by students anywhere else in the world with approval of the instructors. Students have done internships at the University of Oxford, the Pasteur Institute in Paris, Durham (England), Southampton, Yale, and in the field in Brazil, the Caribbean, Tanzania, South Africa, Thailand, and Australia.