

Course Title: Integrative Human Biology

Transcript Title: Integr Human Bio

Course Number: IB 77A (Fall Semester), IB 77B (Spring Semester)

Number of Credits: 1 Credit Pass/No Pass

Course Description: Each week a different Integrative Biology faculty member will give a one hour lecture on how their research field contributes to our understanding of human biology. Many human biology discoveries are inspired by experimental biology studies on non-human organisms. The disciplines of evolution, ecology, paleontology, biomechanics, comparative physiology, and comparative anatomy illuminates our understanding of human biology. During each presentation, the faculty member will also inform students about IB courses they teach, research in their lab, and which Berkeley Natural History Museum and/or research center they may be affiliated with. This course gives undergraduates an opportunity to learn about the spectrum of research and courses offered by the different IB faculty.

Course Logistics: The course will be offered from 5:00-6:00 PM on Wednesday in VLSB 2050. After the lecture, the faculty member will go to VLSB 2063 and be available to interact with students for 30 minutes. Light snacks and tea will be available in VLSB 2063. The IB undergraduate student organization, DIBS (Department of Integrative Biology Students) will play a vital role in hosting the seminars and the post-seminar interactions in VLSB 2063.

Course Format: The course is for one credit and is Pass/No Pass. Student attendance is required. Lecture pdfs may be loaded onto the bcourse site. Each faculty who presents a lecture will submit 3 multiple choice questions from their lecture for the final exam. The content of the final exam will be based on the material covered in the lectures during the semester.

Students Eligible for the Course: All integrative biology undergraduate majors from both tracks will be required to take one semester of either IB 77A in Fall semester or IB 77B in Spring semester as soon as they declare IB as their major. Students can take and get credit for both IB 77A and IB 77B. This course may also be taken by concurrent enrollment students as well as UC Berkeley undergraduates who have not yet declared a major and want to learn more about the IB major. There are no course prerequisites for this course.

**IB 77A Fall 2017 Semester lectures in 2050 VLSB on Wednesdays
from 5:00 – 6:00**

8-23-17 Robert Dudley: “The Drunken Monkey: understanding alcoholism within an evolutionary framework”

8-30-17 Rasmus Nielsen: “The genetic basis of human physiological adaptation”

9-6-17 Robert Full: “Curiosity, serendipity, and diversity: bioinspired designs from bouncing bugs, gripping geckos, and squished cockroaches”

9-13-17 George Brooks: “The regulation of energy substrate partitioning in humans: lessons from exercise physiology”

9-20-17 Rauri Bowie: “The role of birds in, and as models, of human diseases Part 1”

9-27-17 Rauri Bowie: “The role of birds in, and as models, of human diseases Part 2”

10-4-17 Kevin Padian: “How dinosaurs grew, and how it matters to human physiologists”

10-11-17 Eileen Lacey: “What can pigeons, penerines, and poop tell us about human behavior”

10-18-17 Tim White: “Human origins and evolution”

10-25-17 Tyrone Hayes: “Pesticide endocrine disruptor impacts on human health”

11-1-17 Noah Whiteman: “Wasabi, kohlrabi and human health”

11-8-17 Michael Shapira: “Shaping the gut microbiota by host genetics: lessons from *C. elegans*”

11-15-17 George Bentley: “The discovery of GnIH, a new reproductive hormone”

11-29-17 Final Exam

**IB 77B Spring 2018 Semester lectures in 2050 VLSB on Wednesdays
from 5:00 – 6:00**

1-17-18 Mike Boots: “Spread and evolution of infectious disease”

1-24-18 Daniela Kaufer: “The biology of brain plasticity”

1-31-18 Britt Koskella: “Phage therapy as an alternative to antibiotics”

2-7-18 Cindy Looy: “When conifers took flight: the evolution of wind dispersal”

2-14-18 Seth Finnegan: "Consequences of climate change: what does the fossil record tell us?"

2-21-18 Jimmy McGuire: "Hemoglobin and high-altitude adaptation in hummingbirds"

2-28-18 Mary Power: “Thirsty river food webs: salmon or cyanobacteria?”

3-7-18 Nipam Patel: “Hox genes: from humans to flies and back again”

3-14-18 John Huelsenbeck: "How Bayesian inference in phylogeny can illuminate our understanding of human biology"

3-21-18 Brent Mishler: “How evolution and the Tree of Life help us to understand human biology”

4-4-18 Carolyn Williams: “Evolutionary physiology as a tool for navigating a changing world”

4-11-18 Paul Fine: “Human ethnoecological management of trees for food”

4-18-18 Jose Pablo Vasquez-Medina: “Applications of marine mammal physiology to understanding human physiology”

4-25-18 Final Exam