

IB 169, EVOLUTIONARY MEDICINE, Spring 2015

Instructor: Tom Carlson tcarlson@berkeley.edu

Department of Integrative Biology, University of California, Berkeley

Office Hours: Tuesdays 3:40-4:30 PM, Wednesdays 11:10-12:00, Thursday 12:40-1:30 in VLSB 1098. This room is on the ground floor on the west side of the building. To get to the office, walk south from the feet of the T. rex dinosaur and enter the last door on the left (east) before reaching the south exit doors.

Lectures: 11:00-12:30 Tuesdays and Thursdays in 145 Dwinelle

GSIs Teaching Discussion Sections:

Dena Block denablock@berkeley.edu (Friday Sections)

Charlotte Jennings cjennings@berkeley.edu (Wednesday Sections)

Katya Mack katyamack@berkeley.edu (Monday Sections)

Midterm #1 on 2/19/15 at 11:00 AM (30% of grade) = 50 points

Midterm #2 on 4/2/15 at 11:00 AM (30% of grade) = 50 points

Final Exam: 5/14/15 at 8:00 AM (30% of grade) = 50 points

Discussion section: 10% of grade = 17 points

Total course points = 167 points

Required Text: Principles of Evolutionary Medicine, 1st Edition, Peter Gluckman, Alan Beedle, & Mark Hanson, Oxford University Press, ISBN: 9780199236398

Sequence of Lecture Topics:

PDFs of Carlson lectures will be loaded onto the course bcourse site

Lecture Topic #1: Overview of Evolutionary Medicine (Text pp. xiii-xv, 257-268, 272-275, 17; *Science* Ellison pdf; Nesse *PNAS* pdf; Stearns *PRSB* pdf)

Lecture Topic #2: Primate evolution & diversity (Text pp. 123-124)

Lecture Topic #3: Ape evolution & diversity (Text pp. 15, 123-124)

Lecture Topic #4: Hominin evolution & diversity (Text pp. 123-133)

Lecture Topic #5: Evolutionary theory (Text pp. 3-18, 21-49)

Lecture Topic #6: Human migration & evolution (Text pp. 128-147)

Lecture Topic #7: Genetics: Molecular Basis of Variation & Inheritance (Text pp. 51-75)

Lecture Topic #8: Evolution, Development & Phenotypes (Text pp. 77-85)

Lecture Topic #9: Epigenetics (Text pp. 85-96)

Lecture Topic #10: Life Histories (Text pp. 97-121)

Lecture Topic #11: Reproduction (Text pp. 151-177)

Lecture Topic #12: Culture, Psychology, Stress, & HPA Axis (Text pp. 211-215, 233-253)

Lecture Topic #13: Diet and Metabolism (Text pp. 179-208)

Lecture Topic #14: Host-Pathogen Interactions (Text pp. 216-228)

Lecture Topic #15: Cancer (Text pp. 268-272)

Human Clinical Case Presentations will be presented in lecture and integrated throughout the course Lecture Topics