IB 35 AC: Human Biological Variation

FALL 2014

Lecture is held on Tuesdays and Thursdays, 2:00-3:30pm in room 105 Stanley Hall.

Discussion sections are held on Monday, Tuesday, or Wednesday and meet in room 1007 of Valley Life Sciences Bldg.

Faculty Instructor:

Christopher Schmitt, Postdoctoral Scholar, Human Evolution Research Center

Lecturer, Department of Integrative Biology Office: 5088 Valley Life Sciences Building

Office Hours: 10am-12pm Wednesday, or by appt.

Web: http://www.evopropinquitous.net

Twitter: @fuzzyatelin

Graduate Student Instructors:

Kurt Anthony, MPH candidate, School of Public Health
Bassel Bacha, MS candidate, Civil & Environmental Engineering
Karen Diepstra, MPH candidate, School of Public Health
Tesla Monson, PhD candidate, Integrative Biology
Whitney Reiner, PhD candidate, Integrative Biology

All GSIs are available for course content questions. GSI office hours TBA. If you need to meet with a specific GSI, or cannot make this time, please make an appointment through the course email (see below).

Course email address: ib35ac@berkeley.edu

Course Description: This course addresses modern human biological variation from historical, comparative, evolutionary, biomedical, and cultural perspectives. It is designed to introduce students to the fundamentals of comparative biology, evolutionary theory, and genetics.

Prerequisites: There are no prerequisites for this course.

Course Format: This is a 4 unit lecture course with discussion section. Lectures will be held twice a week for a total of 3 hours, and students will participate in the one-hour discussion section each week in which they are enrolled.

Grading: Performance will be based on a total of 510 possible points distributed across five assignments:

1)	Exam 1	100 points	Thursday, October 2, 2014, 2:00-3:30pm (105 Stanley)
2)	Exam 2	100 points	Thursday, November 13, 2014, 2:00-3:30pm (105 Stanley)
3)	Exam 3 (final)	100 points	Tuesday, December 16, 2014, 8-11am (location TBD)
4)	5 page paper	100 points	due Tuesday, November 25, 2014, 2:00pm (105 Stanley)
5)	Discussion section	110 points	(10 points earned each section meeting)

Final grades will be calculated as the total number of points earned divided by the total possible (510). Final grades are determined as:

98-100%	A+	83-87% B	78-79% C+	60-69%	D
93-97%	Α	88-89% B+	73-77% C	<60%	F
90-92%	A-	80-82% B-	70-72% C-		

Exams will be entirely scantron graded. If necessary, exams will be scaled but not curved (this is to your advantage). There will be NO extra credit.

The student community at UC Berkeley has adopted the following Honor Code:

"As a member of the UC Berkeley community, I act with honesty, integrity, and respect for others." The expectation is that you will adhere to this code, as your instructors pledge to do as well. For more information, please visit this website: http://asuc.org/honorcode/index.php

Policy on UC Berkeley's Code of Student Conduct: All students are expected to follow the University of California at Berkeley's Campus Code of Student Conduct, as is published at http://campuslife.berkeley.edu/code-of-conduct. Cheating, plagiarism, or any other form of academic dishonesty will not be tolerated (102.01).

Policy on plagiarism:

In academia ideas are our commodity. Taking direct text or ideas or data or results from someone else's work without properly giving credit is essentially stealing. Representing them as your own is unethical and disrespectful. This is unacceptable in a university and we take it very seriously here at UC Berkeley. We will pursue disciplinary action against students who plagiarize in this class. If you are unfamiliar with plagiarism you need to read the plagiarism information we have posted on the course bSpace site prior to writing your paper. See also the tutorial on the Biosciences Library website: http://www.lib.berkeley.edu/BIOS/media/bio1b_tutorial/module4.html

Required texts:

Immortal Life of Henrietta Lacks, by Rebecca Skloot (paperback) ISBN 978-1-4000-5218-9 Living Color, by Nina G. Jablonski, UC Press ISBN 978-0-520-25153-3 Salt, Sugar, Fat, by Michael Moss, ISBN 1400069807

Course website:

There is a web site for the course available to enrolled students through bSpace at https://bspace.berkeley.edu. Abbreviated class slides will be posted by 8pm the night before each class meeting. Reading assignments and required readings outside of the required texts will be posted on bSpace. Important announcements related to the course will be posted on the bSpace site. It is your responsibility to check this site. You can sign up to receive announcements by email or get in the habit of checking the site regularly.

Email policy:

In order to keep class queries as a priority, we have established a class-specific email address. The instructors will respond to emails within 24 hours from 8am on Monday through 5pm on Friday. You will not receive email replies over the weekend.

Although email is available to you 24 hours a day 7 days a week, we unfortunately cannot be. Please keep this in mind. ALL EMAIL RELATED TO THE CLASS MUST GO THROUGH THE **IB35AC@BERKELEY.EDU** ADDRESS. Given the vast amount of research and administrative-related email correspondence that Dr. Schmitt and GSIs face on a daily basis, WE CANNOT GUARANTEE A REPLY IF YOU EMAIL DR. SCHMITT OR THE GSIs DIRECTLY.

Please keep in mind that any of the GSIs and/or Dr. Schmitt will read **ib35ac@berkeley.edu** email. As such, ALL EMAILS must have your discussion section and name of your GSI in the subject heading. If you would like to discuss a confidential issue with only a particular GSI or Dr. Schmitt, please write to <u>ib35ac@berkeley.edu</u> to request a meeting or set up a meeting in person.

You must sign your email with the official name you use with the University and/or use your email address registered with the University. If we cannot tell that you are officially a student at Berkeley and enrolled in IB35ac this semester, we will not reply to your email. THIS INCLUDES MESSAGES SENT FROM CELL PHONES.

Please use proper grammar and complete sentences so that your request is clearly understandable.

Policy on accommodation of religious holidays and other scheduling conflicts: In compliance with Education code, Section 92640(a), it is the official policy of the University of California at Berkeley to permit any student to undergo a test or examination, without penalty, at a time when that activity would not violate the student's religious creed, unless administering the examination at an alternative time would impose an undue hardship which could not reasonably have been avoided.

All deadlines and exam dates are noted on this syllabus. It is your responsibility to note any conflicts with exams and due dates and let the instructor or GSIs know. If you have other scheduling conflicts, please see the guidelines at: http://tinyurl.com/schedconflictguidelines.

Policy on exams: We will not administer make-up exams. If you have to miss an exam for a valid, unforeseeable and urgent reason, one of your other exams will be counted twice. For example, if you have a valid family emergency and miss exam 1, you may choose either exam 2 or exam 3 to count twice. If you do find yourself facing an unforeseen emergency, please contact us as soon as possible to let us know. **Documentation will be required.** Please note: this policy is for valid emergencies (i.e., illness, death in the family, need to attend a legal proceeding, your apartment burned down, etc.). Students are otherwise expected to take all three exams.

While we will remind you about exam logistics, you are responsible for making sure that you complete every question and turn in the exam before you leave the room in which it is administered. We will not accept your exam after you have left the classroom.

If you decide to enroll in two courses that meet at the same time (which we strongly advise against), be aware that you will have two final exams scheduled for the exact same time. We will not make accommodations for you – you will be expected to take the final exam for IB35ac.

Policy on the paper assignment: Only a documented illness or some other unforeseeable emergency will allow us to grant you a later due date for the paper than what is posted on this syllabus. Anticipated events do not count as acceptable reasons for turning in your paper late (even if it is a University-approved one), as you can and should plan ahead and turn your paper in early.

Policy on attendance for lecture: We do not enforce attendance. That said, be advised that exam content will primarily derive from lectures. The reading material is additional information that supplements but does not repeat what is presented in class. You are responsible for both. It is *strongly* recommended that you do not skip lecture.

Policy on attendance for discussion section: Again, we do not enforce attendance. That said, be aware that there will be an activity in each section worth 10 points of your final grade. There are 12 discussion section meetings. Your lowest section score will be dropped, for a maximum discussion section score of 110 out of 110. Another way to think of it is that each section meeting is worth about 2% of your final grade, outside of the pedagogical value. Material presented in section will be included on the exams. It is *strongly* recommended that you do not skip your discussion section.

Policy on laptop use in class: We will NOT permit the use of laptops in this course. In years past, laptop use has lead to an abuse of the privilege and resulted in class disruption. For example, students who use class time to catch up on Facebook or to watch movies distract the students around them. This negatively impacts the learning environment. Recent research has strongly shown that note taking done by hand leads to better retention and learning outcomes. This is for the benefit and quality of your personal learning and the learning environment.

Policy on cell phones: All cell phones need to be silenced during class. We all understand that there may be occasional situations in which you need to receive or send a text, but keep in mind that excessive texting or other use of your phones is distracting to other people in the class. If your cell phone activity becomes disruptive, you will be asked to leave the class.

Cell phones must be turned off and put away during all exams. If you use your phone (even if it just rings) during an exam you will be asked to leave and you will receive a zero on the exam.

Policy on students with learning disabilities: In order to adequately accommodate students with learning disabilities that require additional services, we need to know who you are and what your needs are by **September 15**th. If you delay processing your paperwork, we will not be able to accommodate you for the semester. The Disabled Student Program (DSP) requires a significant amount of lead-time from us prior to each exam, and therefore we cannot accommodate last-minute or late paperwork. Do not delay in finalizing and confirming your accommodations.

Policy on recording lectures: Lectures may NOT be recorded using audio or photographic equipment without the prior written permission of Dr. Schmitt or by formal recommendation of the Disabled Students' Program. Video recordings are expressly prohibited by University of California policy. Lectures are comprised of copyrighted intellectual material, and the recording and sharing of that material without express permission is a violation of copyright and personal privacy. Additionally, the discussion of sensitive issues in this class requires that students feel safe to express their opinions without fear of future reprisal or exposure. Students caught recording course lectures using cameras, audio, or video equipment without prior notification and permission will be asked to leave the class.

Course Outline and Due Dates:

Exams and the paper assignment due dates are in **bold**. Discussion section topics are in *italics*.

** Reading assignments will be posted on the course website.**

Aug 28 Class 1: Introduction

Sep 1, 2, 3 Discussion Section: no section this week

Sep 2 Class 2: Evolution

Sep 4 Class 3: Scopes & the Skeleton

Sep 8, 9, 10 Discussion Section 1: Concepts of evolution

Sep 9 Class 4: Our place in nature

Sep 11 Class 5: The human diaspora as recorded in rocks

Sep 15, 16, 17 Discussion Section 2: Human cranial variation

Sep 16 Class 6: Genetics

Sep 18 Class 7: The human diaspora as recorded in our DNA

Sep 22, 23, 24 Discussion Section 3: Genetics

Sep 23 Class 8: Variation, speciation, & heritability

Sep 25 Class 9: Comparing Variation

Sep 29, 30, Oct 1 Discussion Section 4: review for exam during section meeting times

Sep 30 Class 10: Gene-culture evolution

Oct 2 Class 11: EXAM 1

Oct 6, 7, 8 Discussion Section 5: Topic 1 related to Living Color Oct 7 Class 12: Skin color Oct 9 Class 13: What we look like Oct 13, 14, 15 Discussion Section 6: Topic 2 related to Living Color Oct 14 Class 14: Thrifty genotypes & natural selection Oct 16 Class 15: Blood Discussion Section 7: Topic 1 related to Salt, Sugar, Fat Oct 20, 21, 22 Oct 21 Class 16: No lecture today Oct 23 Class 17: **Immunity** Oct 27, 28, 29 Discussion Section 8: Topic 2 related to Salt, Sugar, Fat Oct 28 Class 18: Fertility I: Biology Fertility II: The interface with culture Oct 30 Class 19: Nov 3, 4, 5 Discussion Section 9: Paper workshop 1 Nov 4 Class 20: Sociobiology (genetics of behavior) Class 21: Sex & Gender Nov 6 Discussion Section: no section, evening review session (date TBA) Nov 10, 11, 12 Nov 11 Class 22: Holiday, no lecture Nov 13 Class 23: EXAM 2 Nov 17, 18, 19 Discussion Section 10: Paper workshop 2 Nov 18 Class 24: The science of race, Part 1 (before 1900) Nov 20 Class 25: The science of race, Part 2 (1900-1960s) Discussion Section 11: Topic 1 related to Immortal Life of Henrietta Lacks Nov 24, 25, 26 Why race matters in America today (PAPERS DUE AT START OF CLASS) Nov 25 Class 26: Nov 27 No Class: Thanksgiving Dec 1, 2, 3 Discussion Section 12: Topic 2 related to Immortal Life of Henrietta Lacks The bioethics of human variation in the 21st century Class 27: Dec 2

Dec 8, 9, 10 Review sessions will be held during normally scheduled discussion section times and in the same room where all previous sections will have been held (1007 VLSB).

Dec 16 Tuesday, 8-11am EXAM 3 (final exam, location will be announced by the registrar's office)

Dec 4

Class 28:

The future