

IB 35 AC: Human Biological Variation

FALL 2013

Lecture is held on Tuesdays and Thursdays, 9:30-11am in room 295 (Anderson Auditorium) of the Haas Business School.
Discussion sections are held on Monday, Tuesday, or Wednesday and meet in room 1007 of Valley Life Sciences Bldg.

Faculty Instructor:

Leslea Hlusko, Associate Professor, Department of Integrative Biology

Office: 5085 Valley Life Sciences Building

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

Graduate Student Instructors:

Theresa Grieco, PhD candidate, Dept of Integrative Biology

Ashley Poust, PhD candidate, Dept of Integrative Biology

Whitney Reiner, PhD candidate, Dept of Integrative Biology

Andrew Rush, PhD candidate, Dept of Integrative Biology

Melinda Yang, PhD candidate, Dept of Integrative Biology

All GSIs are available for course content questions. GSI office hours will be held on Fridays from 1-3pm in room 1007 VLSB. 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:

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|-------------------------------|-----------------|---|
| 1) Exam 1 | 100 points | Thursday, October 3, 2013, 9:30-11am (295 Haas) |
| 2) Exam 2 | 100 points | Thursday, November 14, 2013, 9:30-11am (295 Haas) |
| 3) Exam 3 (final) | 100 points | Tuesday, December 17, 2013, 3-6pm (location TBD) |
| 4) 5 page paper | 100 points | due Tuesday, November 26, 2013, 9:30am (295 Haas) |
| 5) Discussion section | 110 points | (10 points earned each section meeting) |
| 6) <i>Extra credit option</i> | <i>5 points</i> | <i>(Teaching Biology Project)</i> |

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%	A	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).

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://sa.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 web site:

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. Hlusko and the GSIs face on a daily basis, WE CANNOT GUARANTEE A REPLY IF YOU EMAIL DR. HLUSKO OR THE GSIs DIRECTLY.

Please keep in mind that any of the GSIs and/or Dr. Hlusko will read **ib35ac@berkeley.edu** email. If you would like to discuss a confidential issue with only a particular GSI or Dr. Hlusko, please write to ib35ac@berkeley.edu 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 start the semester allowing the use of laptops in class SOLELY for the purpose of taking notes. In years past this has sometimes 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. Therefore, laptops will be allowed only if everyone follows these rules: 1) You are not allowed to run a power cable across the steps in the classroom or to sit on the stairs in order to have your laptop plugged in. This is a safety hazard. 2) You are only allowed to use your laptop for the purpose of taking notes. 3) I encourage students who are

distracted by the laptop activities of other students to let one of the instructors know. If laptop use starts to impinge on the classroom experience, they will be banned for the remainder of the semester for everyone.

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 15th**. 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.

Extra credit project: Your one and only opportunity to earn extra credit for this course will introduce you to the pedagogy of biology, i.e., teaching biology. For 5 extra points, you are invited to either respond to an article about science education or participate in a study directed by Diane Lam, a PhD candidate in the Graduate School of Education (dianelam@berkeley.edu). She will be coordinating all of the logistics around this extra credit opportunity. More details will be posted on bSpace and announced in 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 29 Class 1: Introduction

Sep 2, 3, 4 Discussion Section: no section this week

Sep 3 Class 2: Evolution

Sep 5 Class 3: Scopes & the Skeleton

Sep 9, 10, 11 Discussion Section 1: Concepts of evolution

Sep 10 Class 4: Our place in nature

Sep 12 Class 5: The human diaspora as recorded in rocks

Sep 16, 17, 18 Discussion Section 2: Human cranial variation

Sep 17 Class 6: No lecture today

Sep 19 Class 7: Genetics

Sep 23, 24, 25 Discussion Section 3: Genetics

Sep 24 Class 8: The human diaspora as recorded in our DNA

Sep 26 Class 9: Variation, speciation, & heritability

Sep 30, Oct 1, 2 Discussion Section 4: review for exam during section meeting times

Oct 1 Class 10: Comparing variation

Oct 3 Class 11: **EXAM 1**

- Oct 7, 8, 9 *Discussion Section 5: Topic 1 related to Living Color*
- Oct 8 Class 12: Skin color
- Oct 10 Class 13: Gene-Culture evolution
- Oct 14, 15, 16 *Discussion Section 6: Topic 2 related to Living Color*
- Oct 15 Class 14: What we look like
- Oct 17 Class 15: Thrifty genotypes & natural selection
- Oct 21, 22, 23 *Discussion Section 7: Topic 1 related to Salt, Sugar, Fat*
- Oct 22 Class 16: Blood
- Oct 24 Class 17: Genetics in medicine
- Oct 28, 29, 30 *Discussion Section 8: Topic 2 related to Salt, Sugar, Fat*
- Oct 29 Class 18: Fertility I: Biology
- Oct 31 Class 19: Immunity
- Nov 4, 5, 6 *Discussion Section 9: Paper workshop 1*
- Nov 5 Class 20: Fertility II: The interface with culture
- Nov 7 Class 21: Sex & Gender
- Nov 11, 12, 13 *Discussion Section: no section, evening review session (Nov 12, Tues, 6-8pm, rm 100 GPB)*
- Nov 12 Class 22: Sociobiology (genetics of behavior)
- Nov 12 6-8pm *Exam 2 review session in room 100 GPB*
- Nov 14 Class 23: EXAM 2**
- Nov 18, 19, 20 *Discussion Section 10: Paper workshop 2*
- Nov 19 Class 24: The science of race, Part 1 (before 1900)
- Nov 21 Class 25: The science of race, Part 2 (1900-1960s)
- Nov 25, 26, 27 *Discussion Section 11: Topic 1 related to Immortal Life of Henrietta Lacks*
- Nov 26 Class 26: Why race matters in America today (PAPERS DUE AT START OF CLASS)**
- Nov 28 No Class: Thanksgiving
- Dec 2, 3, 4 *Discussion Section 12: Topic 2 related to Immortal Life of Henrietta Lacks*
- Dec 3 Class 27: The bioethics of human variation in the 21st century
- Dec 5 Class 28: The future
- Dec 9, 10, 11 *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 17 Tuesday, 3-6pm EXAM 3 (final exam, location will be announced by the registrar's office)**