Bioethics in the 21st Century  
Philosophy 80G / Biomolecular Engineering 80G Summer 2017

Instructors:
Dr. Sandra Dreisbach, dreisbach@soe.ucsc.edu  
Kevin Hagy, khagy@ucsc.edu  
At least one of us will be available before and after class though you can also make an appointment to meet with us.

Reader:
Brett Gohre: bgohre@ucsc.edu

Class schedule: Tuesday/Thursday, 9:00AM-12:30PM, Social Sciences 1, 110

Course Goals & Structure: Bioethics in the 21st Century aims to give students a rigorous foundation for understanding the scientific and ethical issues raised by biotechnology. This course is designed to meet general education requirements, and will serve both science majors and non-science majors at all levels of experience. Interaction among students and faculty from both the humanities and the sciences is one of the strengths of this course. A typical week will include a guest speaker who will present a one-hour seminar from his or her background, particularly focusing on experiences related to the ethical questions addressed by the course. This one-hour talk will be followed by a discussion with the guest speaker. Attendance during the discussion is mandatory, and active student participation will be expected. In regular lecture the instructor from the Philosophy Department will lecture on bioethics including ethical issues raised by speakers, and the instructor from the Biomolecular Engineering Department will lecture on the basic science needed to understand the following guest speaker.

Required Readings:

Rachels, James; The Elements of Moral Philosophy, 6th or 7th Ed. (EMP)
Skloot, Rebecca; The Immortal Life of Henrietta Lacks (ILHL)
Weston, Anthony; A Rulebook for Arguments, 4th Ed. (RA)

Canvas Online Readings and Multimedia Assigned Regularly

The books are all available as ebooks and some are available as audiobooks (ILHL). Additional required readings and multimedia materials will be distributed or linked to via Canvas.
Canvas: The day-to-day functioning of this course will rely heavily on Canvas (https://canvas.ucsc.edu/courses/5661), including the quizzes, downloading required and suggested readings or online videos and distribution of the weekly assignments. Canvas can be accessed at the above address or via your my.ucsc.edu page. You must check Canvas regularly for new assignments and course information, meaning at least several times a week.

If you have any trouble with Canvas, you are expected to ask for help from the instructor(s) and/or campus technical support. Please note that in order for Canvas to function, your web browser must be supported and configured correctly, instructions for which are available at the above site. If you are already enrolled, Canvas will recognize you as such. If you are wait-listed or adding to the class, send an email to Dr. Dreisbach to be added as an auditor until you become officially enrolled.

Disability Resource Center: UC Santa Cruz is committed to creating an academic environment that supports its diverse student body. If you are a student with learning difference(s) and/or disability who requires accommodations to achieve equal access in this course, please submit your Accommodation Authorization Letter from the Disability Resource Center (DRC) to us privately during our office hours or by appointment, preferably within the first week of the quarter. At this time, we would also like us to discuss ways we can ensure your full participation in the course. We encourage all students who may benefit from learning more about DRC services to contact DRC by phone at 831-459-2089 or by email at drc@ucsc.edu.

Counseling and Psychological Services: All currently enrolled undergraduate and graduate students at the University of California at Santa Cruz are eligible to utilize on-campus counseling services. Situational and developmental problems frequently interfere with academic performance. Please make use of the campus resources available to support you. Services are confidential (831) 459-2628. http://caps.ucsc.edu/counseling/index.html

Academic Misconduct: By enrolling in the University, students are automatically agreeing to abide by University policies, including those on academic misconduct. Academic integrity and scholarship are core values that should guide our conduct and decisions as members of the UCSC community. Plagiarism and cheating contradict these values, and as such are very serious academic offenses. Penalties can include a failing grade in an assignment or in the course, and/or suspension or expulsion from the university. Students are expected to familiarize themselves with and follow citation practices. The instructors in this course will pursue disciplinary action in all instances of academic misconduct.
Student Evaluation:

20% CLASS Attendance and Participation

8% QUIZZES (Four quizzes, 2% Each)

22% FINAL EXAM

40% SHORT ASSIGNMENTS (Four Assignments, 10% Each)

10% CONNECT Learning Modules

Class Attendance and Participation: Students are expected to attend and participate in class including small group work. Participation will be primarily measured through the use of in-class participation worksheets, the question and answer period of guest lectures and overall quality of participation.

Quizzes: Four quizzes will be given on Canvas throughout the term and can be on class readings, class lecture, or on the last guest lecturer. Quizzes are open book, very short (10 questions), and can be a mix of multiple choice, matching, or true/false. Quizzes will be released each week on Thursdays and available until Sunday at midnight and there are no quiz make-ups.

Final Exam: The Final Exam will be part multiple-choice and part short-essays and long-essay. You will need to bring a Scantron and Blue Book for the Final Exam. If you have a known scheduling conflict with the Final Examination date, you must inform the instructors within the first week of class to make alternative arrangements. Otherwise, absence from the Final Exam will be granted for medical or family emergencies only. An incomplete grade or an opportunity to make-up the points will be assigned to the student at the instructors’ discretion. Excused absences will not be granted for non-emergency reasons.

Short Assignments: Each student is responsible for FOUR essays out of at least SEVEN paper topic assignments mostly short 2-3 page essays, due Tuesday at the very beginning of class by 9:05 AM. The new assignments will be posted on Canvas on the Tuesday prior to the due date. Do not come to class late and expect to turn in your assignment. Assignments will NOT be accepted late NO EXCEPTIONS. If you run into serious last minute problems or are ill, you can post your assignment to Canvas BEFORE the 9:05 AM deadline, but you must still submit a hard copy to the class reader as well before our next class meeting. Students can ONLY hand in four assignments.

Connect Learning Modules: On the Connect site each individual chapter of the Elements of Moral philosophy text will have learning module to complete on a pass/fail basis.
Overview of Course Schedule and Topics

**Final Readings, Speakers, Topics and Order are all subject to change due to the nature of having several guest speakers for the course.**

Week 1:
**Tuesday, August 1st**: Intro to Bioethics & Moral Reasoning and Intro to Properties & Origins of Life, Fields of Science, and Biotechnology
Assignment #1: Assigned

**Thursday, August 3rd**: Guest Lecturer - Jessie Lopez, Crispr/cas9
Quiz 1

Week 2:
**Tuesday, August 8th**: Guest Lecturer - David Bernick, iGem 2017 project;
Intro to Ethical Theory and DNA Sequencing & GMO Basics;
Assignment #1: DUE, Assignment #2: Assigned
Reading Deadline for EMP Book

**Thursday, August 10th**: Guest Lecturer – Logan Mulroney, Scientific Misconduct;
Moral Personhood and Stem Cell Biology;
Quiz 2

Week 3:
**Tuesday, August 15th**: Informed Consent and Infectious Diseases
Assignment #2: DUE, Assignment #3: Assigned

**Thursday, August 17th**: Guest Lecturer – David Bernick, HeLa
Reading Deadline for ILHL Book
Quiz 3

Week 4:
**Tuesday, August 22nd**: Guest Lecturer – Rebecca DuBois, Dual-Use Research
Assignment #3: DUE, Assignment #4: Assigned

**Thursday, August 24th**: Guest Lecturer – Logan Mulroney, DNA Forensics
Quiz 4

Week 5:
**Tuesday, August 29th**: Course Summary and final Guest Lecturer TBA
Assignment #4: DUE

**Thursday, August 31st**: FINAL EXAM