Bioethics BME80G/PHIL80G  
Summer 2019 Session II Syllabus

Course Objective: The objective of this class is to build a foundation of ethical standpoints to apply to past and current bioethical issues. Through this practice, we will build an understanding of the qualities and values that build an ethical research practice. These skills will be useful in any students career, as an understanding of ethics and ethical research can help shape research questions and application of results. 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.

Instructors  
Dr. Sandra Dreisbach, dreisbach@soe.ucsc.edu  
Lecturer, Department of Philosophy & Department of Biomolecular Engineering  
Office Hours, by appointment, before and after class.

Paloma Medina, pamedina@ucsc.edu  
Ph.D Candidate, Department of Biomolecular Engineering  
Office Hours, Wednesday 12pm-1pm, Biomed Room 160.

By participating in and contributing to this class, you will…
- **Describe** and **recall** values of the bioethical theories covered in class and **apply** those theories in the context of biotechnology.
- **Reflect** on and distinguish the values and interests that drive your own educational pursuits, in order to let them guide your decisions as a student.
- **Evaluate** the ethics of biotechnology using bioethical frameworks to **develop** just scientific practices.
- **Create** a moral argument complete with premise, conclusion, counterargument, and a moral position in the context of a case study.
- **Evaluate** the validity and soundness of an argument.
- **Integrate** your learning in this class into you own sense of yourself through your interactions with others from a variety of socioeconomic, religious, educational, cultural backgrounds.
- **Identify** factual premises in a scientific article and **evaluate** their validity.
- **Develop** your approach to and sense of self as a student, through evaluating, debating, and forming moral arguments and through examining challenges that arise when honoring diverse values.

In-Class Activities and Online Discussion  
Canvas discussion submissions and class attendance will contribute to your grade. We aim to make our in-class time as active, dynamic, practical, and hands-on as possible. Each class has a theme and topics on which we’ll focus, and in addition to drawing from the readings, we will
embrace the knowledge and experience you bring. In order to give you the opportunity to
directly apply the readings to your own values, we ask that you contribute to the online
discussion questions (located in each module) before and after each class (named “Go Now”
questions and “Exit Ticket” questions on Canvas).

**Short Assignments:** 2-3 pages. Assignments can be found on Canvas. Assignments are due
on Canvas at the very beginning of class. See schedule for due dates. Tuesday 9am your first
draft is due. Wednesday 9am submit two peer revisions on Canvas. Thursday 9am submit a
revised edition of your assignment on canvas.

**Final Project:** Final Project

**Final Exam:** Final Exam will be part multiple-choice and part short-essays and/or long-essays.
You will need to bring a Scantron and Blue Book for the Final Exam. The Final Exam will take
place on the last Thursday of class.

**Late Assignments:** Assignments will not be accepted late.

**Student Evaluation:**
- 12% Class Attendance & Participation
- 18% Online Discussion Question Participation (2 Each Class, 18 Total, 1% Each, P/NP)
- 40% Short Assignments (Four Assignments, 10% Each)
- 8% Peer Evaluation of Short Assignments (8 Total, 1% Each, P/NP)
- 10% iGem Project
- 12% Final Reflection

**Readings**
*Most books are available as ebooks and some are available as audiobooks (ILHL)*

**Required Texts**
- Skloot, Rebecca; The Immortal Life of Henrietta Lacks (ILHL)
- Rachels, James; The Elements of Moral Philosophy, 6th or 7th Ed. (EMP)

**Canvas Readings & Multimedia:** additional required readings and multimedia materials will be
distributed or linked to via Canvas.

**Optional Resources**
- Nelson, Alondra; The Social Life of DNA
- Weston, Anthony; A Rulebook for Arguments, 4th Ed. (RA)
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<th>Date</th>
<th>Essential Question</th>
<th>Due</th>
<th>Class Topics</th>
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<td><strong>Week One</strong></td>
<td>EQ1: Why is the study of Bioethics important? If at all? (Bioethics)</td>
<td>- Order books, check out canvas. - Read through the course syllabus.</td>
<td>Moral theories. Scientific Method.</td>
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<td>Tuesday, 7/30/19</td>
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<td>Thursday, 8/1/19</td>
<td>EQ2: What do you value? What gives your life meaning/purpose? (Ethics Personal Values)</td>
<td>- Complete the pre-course survey. - Complete Canvas “Go Now” and “Exit Ticket” Questions - Read Weston CH 7, 8, 9, 10 (ArgumentativeEssays.pdf) - Read Case Study #1</td>
<td>Moral argumentation.</td>
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<td><strong>Week Two</strong></td>
<td>EQ3: How should you decide what is the best moral choice? (Normative Theory)</td>
<td>- Complete Canvas “Go Now” and “Exit Ticket” Questions - SA #1 due, submit on canvas, and bring two hard copies - Read Rachels CH 7, 8, 9, 10 (UtilitarianismKantianismRachels.pdf) - Read Case Study #6 Puberty Blockers</td>
<td>Autonomy and Informed Consent</td>
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<td>Tuesday, 8/6/19</td>
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<td>Wednesday, 8/7/19</td>
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<td>- Two Peer Reviews for SA #1 Due</td>
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<td>Thursday, 8/8/19</td>
<td>EQ4: Who decides what is the best moral choice? (Autonomy/paternalism &amp; Consent)</td>
<td>- SA #1 Revision Due - Complete Canvas “Go Now” and “Exit Ticket” Questions - Read Case Study #8 Havasupai - Read Case Study #15 Mauna Kea - Read Case Study #14 CRISPR Human Genome Editing</td>
<td>Jessi Lopez, Genetic Engineering, Guest lecture.</td>
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| Week Three  
Tuesday, 8/13/19 | EQ5: What should be given moral consideration when making a choice? (Personhood / nonhuman animal) | - SA #2 Due  
- Read case study #4 Non-human persons  
- Read ILHL Chapter 1-5 | Rebecca DuBois Guest lecture. |
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<td>Wednesday, 8/14/19</td>
<td>- Two Peer Reviews for SA #2 Due</td>
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| Thursday, 8/15/19 | EQ6: What is the purpose of science? (Ethical Science) | - SA #2 Revision Due  
- Complete Canvas “Go Now” and “Exit Ticket” Questions  
- Explore iGem webpage | iGem collaboration |
| Week Four  
Tuesday, 8/20/19 | EQ7: How do should ensure ethical research? (Ethical research) | - Assignment #3 Due  
- Complete Canvas “Go Now” and “Exit Ticket” Questions  
- Finish reading ILHL.  
- Read Case Study #5 Debug Fresno.  
- Read Case Study #9 Golden Rice  
- Read Case Study #2 De-extinction | David Bernick, HeLa Guest lecture. |
| Wednesday, 8/21/19 | - Two Peer Reviews for SA #3 Due |  |
| Thursday, 8/22/19 | EQ8: Should genetic engineering have any limitations? Who decides? (Genetic engineering) | - Complete Canvas “Go Now” and “Exit Ticket” Questions  
- Submit iGEM paper on canvas  
- Read case study #13 Reunification  
- Read Social Life of DNA Introduction and Chapter 1 | Review |
| Week Five  
Tuesday, | All of the above. | - Assignment #4 due |  |
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<td>Wednesday, 8/28/19</td>
<td>- Two Peer Reviews for SA #4</td>
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<td>Thursday, 8/29/19</td>
<td>- Final reflection paper due.</td>
<td>Final paper due</td>
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Accessibility
We aim to employ a Universal Design for Learning mentality, that is, we assume difference is the norm in any classroom and aim to make our class as accessible as possible. We aim to provide accessible materials and to create opportunities for different kinds of engagement in our classroom space. If you come across materials that are not accessible to you, or experience a barrier to your participation in a class or meeting, please bring this to our attention and we will gladly work with you to ensure accessibility.

Learning Support Services: Get feedback on your writing structure and grammar. Individual writing tutor appointments can be made at https://lss.ucsc.edu/.

Canvas: The day-to-day functioning of this course will rely heavily on Canvas (https://canvas.ucsc.edu/). Readings, videos, and assignments will be posted here. 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 waitlisted 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 oncampus 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.

Title IX: The university cherishes the free and open exchange of ideas and enlargement of knowledge. To maintain this freedom and openness requires objectivity, mutual trust, and confidence; it requires the absence of coercion, intimidation, or exploitation. The principal responsibility for maintaining these conditions must rest upon those members of the university community who exercise most authority and leadership: faculty, managers, and supervisors.

The university has instituted a number of measures designed to protect its community from sex discrimination, sexual harassment, sexual violence, and other related prohibited conduct. Information about the Title IX Office, the online reporting link, applicable campus resources, reporting responsibilities, the UC Policy on Sexual Violence and Sexual Harassment and the UC Santa Cruz Procedures for Reporting and Responding to Reports of Sexual Violence and Sexual Harassment can be found at titleix.ucsc.edu. The Title IX/Sexual Harassment Office is located at 105 Kerr Hall. In addition to the online reporting option, you can contact the Title IX Office by calling 831-459-2462.

Important Deadlines:

- **Drop**: August 5, 2019 (Mon)
- **Request for “W”**: August 16, 2019 (Fri)

Important Note: Neither Summer Session nor instructors drop students for non-attendance or non-payment. Students must drop themselves. Dropping results in full tuition reversal/refund. Withdraw posts a W for the grade and full tuition is charged (no refund).

For all dates and deadlines, including “change of grade option” (P/NP) and grades due, here is the summer academic calendar:

https://summer.ucsc.edu/studentlife/index.html

For questions about dropping, requesting a W grade for a course, or withdrawing from the summer quarter, email summer@ucsc.edu.