BIO 128S. Bioethics: Frameworks and Applications

Summer 2026
Tu/Th 10:30 – 12:20 PM
Location TBD

Instructor

Dr. David Armenta | darmenta@stanford.edu | Office hours Wednesdays 2:00 - 3:00 PM, STLC 213

Office Hours

Please come see me at office hours (or make an appointment) to chat about the class, ask questions, or just say hi! If you want to speak with me privately, just let me know in advance and we can make an appointment. Office hours will be in STLC213.

Course description

In the last several decades, we have made great strides in the fields of biology and medicine. However, science alone cannot guide us in the ethical application of our knowledge and discoveries to the world around us. In comes the field of bioethics. Bioethics combines medicine, law, philosophy, and policy to help us deal with some of the most pressing and challenging ethical dilemmas in our modern society. This course is designed for students with no prior background in ethics, medicine, or biology, providing a foundational understanding of key principles and concepts that are essential to bioethics. It is intended to arm students with tools and understanding to help them navigate a complex and ever-changing world.

This course will explore the ethical and social issues that arise in medicine and biology. We will discuss a range of topics, starting with predominant ethical theories and frameworks and moving to medical and research ethics, genetic modification, end-of-life care, public health and policy, and finally, potential future issues and directions in bioethics. From this course, students will learn to analyze and apply ethical theories and frameworks such as utilitarianism, deontology, virtue ethics, and principlism to real-world and hypothetical scenarios. An essential part of this course will be to engage in analysis and discussions, generating and assessing arguments that consider multiple perspectives within the field of bioethics.

Learning goals

In this course, students will:

- Learn to critically evaluate logical, scientific, and philosophical arguments

- Understand basic theories and principles in ethics
- Analyze and articulate ethical issues in biomedical contexts
- Apply ethical reasoning to real-world cases and scenarios
- Synthesize and defend ideas verbally and in writing

Course expectations and attendance policy

1. This course is designed to help you better understand ethics and biomedical ethics from a variety of perspectives.
2. For this to be successful, you need to **come to class prepared**. This means reading and thinking about the assignment course materials and completing the written assignments by their due dates. Late work will not be accepted for credit, barring extenuating circumstances.
3. You should also be **participating** in class discussions, which is only possible **if you are in attendance.** Please attend every section, unless you are unwell. However, I will allow a 2 absence "pass"—no questions asked—which can be made up with alternative work (usually writing/speaking). Arriving > 5 minutes late will result in you losing your participation for the day and arriving very late for the class (more than 10 minutes) will count as an absence.
4. Because discussion is an essential part of this class, you cannot miss any more than 5 sessions and pass this class.

Course structure

1. Most of the **reading** assignments can be accessed through this syllabus, either as links or PDFs.
2. Required texts are given in the next section
3. Announcements will be made through the Canvas site. Homework should be submitted via Canvas Assignments.

Required texts

Most course preparation materials will be available through this syllabus, but some extra sources will be required. Namely,

- Boone, B. (2017). *Ethics 101: From Aristotle and Immanuel Kant to Altruism and Utilitarianism, an Exploration of the Concepts of Right and Wrong*. Adams Media Corporation.
    - Referred to as: "*Ethics 101*" in the reading list

- Aas, S. D., O'Neil, C., & Lepora, C. (2024). *Bioethics: 50 puzzles, problems, and thought experiments*. Routledge.
    - Referred to as: "*Bioethics*" in the reading list

Assignments

Each week, students will be assigned a short weekly assignment based on the important concepts of the week.

Grading

Grading Item Category	Total Points	Category Description
Section Attendance & Participation	**16**	Attend and participate in sections (1 pt per session)
Weekly Assignments	**40**	Complete and submit 8 Weekly Assignments to Canvas (5 pts each)
Midterm Essay	**20**	An essay due Week 5
Final Essay	**24**	An essay due Week 8
Total	**100**	

Final grades will be assigned according to the below scale.

A+	98–100 points
A	94–97 points
A−	90–93 points
B+	87–89 points
B	83–86 points
B−	80–82 points
C+	77–79 points
C	73–76 points
C−	70–72 points
D+	67–69 points

D	63–66 points
D−	60–62 points
F	0–59 points

The Honor Code

The Stanford Honor Code was composed by students in 1921 (updated in 2023), and expresses the university's expectations for academic integrity. Please read it here. Together with the Fundamental Standard, these documents lay out the rights and responsibilities of Stanford students, in particular with regard to their academic behavior. Some key points:

- Students cannot submit the same written work for different classes.
- Plagiarism (copying passages from other people's work without attribution) is forbidden.
- Having someone else complete an assignment for you is forbidden.
- The use of or consultation with generative AI will be treated analogously to assistance from another person. It should be clearly noted if generative AI was used in the completion of any assignments, including how it was used.

Classroom Behavior

I consider the classroom to be a place where you will be treated with respect, and I welcome individuals of all ages, backgrounds, beliefs, ethnicities, genders, gender identities, gender expressions, national origins, religious affiliations, sexual orientations, abilities, and other visible and nonvisible differences. All members of this class are expected to contribute to a respectful, welcoming, and inclusive environment for every other member of the class.

Please attend to all university policy and classroom etiquette procedures. Those not heeding the policies will be asked to leave the classroom immediately to maintain the learning environment. Students failing to respect classroom norms and behavior may suffer a reduction in their final class grade through a withdrawal of attendance and participation points.

While in class, only use electronics for the purpose of taking notes or referring to this course's readings and projects. Please do not pack up to leave until the end of the time period or until otherwise released (it's quite rude and disruptive otherwise). If you must leave early, please pack up and leave quietly to cause minimal disruption.

Stanford recognizes the inherent dignity of all individuals and promotes respect for all people. Hostility toward other students will not be tolerated. Free speech does not permit harassment, intimidation, threats, or other behaviors that impede the learning of other students or the work of faculty and staff. Please refer to the Stanford Policies and Guidance.

Preferred Pronouns

I will gladly honor your request to address you by your chosen name and/or gender pronouns. Please advise me of this preference early in the quarter so that I may make appropriate notes on my records.

Access and Accommodations

Stanford is committed to providing equal educational opportunities for disabled students. Disabled students are a valued and essential part of the Stanford community. We welcome you to our class.

If you experience disability, please register with the Office of Accessible Education (OAE). Professional staff will evaluate your needs, support appropriate and reasonable accommodations, and prepare an Academic Accommodation Letter for faculty. To get started, or to re-initiate services, please visit oae.stanford.edu.

If you already have an Academic Accommodation Letter, I invite you to share your letter with me. Academic Accommodation Letters should be shared at the earliest possible opportunity so we may partner with you and OAE to identify any barriers to access and inclusion that might be encountered in your experience of this course.

Students who are immunocompromised should register with the OAE as soon as possible.

Student athletes who anticipate challenges in being able to participate in class or submit assignments on time should email us as soon as possible about available alternatives or allowances.

Current Circumstances

We are each starting this class in unique circumstances and may be facing a variety of uncertainties, responsibilities, and emotions. We appreciate your participation in our course, and we will do everything we can to support you. There are also campus resources, such as accommodations, the Summer Academic Resources Center, the Vaden Health Center, psychological counseling, and confidential support, for broader needs you might have. If there are additional ways we can support you in the course, please feel encouraged to reach out to us. Without requesting or expecting details of your situation, we will do everything we can to ensure your course learning is productive and enjoyable.

Course Overview

Week 1: Introduction to arguments and ethics

- Topics
    - Argument generation and support

    - Logical and scientific claims
    - Ethical frameworks: utilitarianism, deontology, virtue ethics, and care ethics
- Readings
    - Evaluating Scientific Claims
    - Model UN Guide to Logical Arguments
    - Care Ethics
    - Ethical Decision making
    - *Ethics* 101: pp. 57 - 138

Week 2: Bioethical frameworks and medical ethics

- Topics
    - Principlism: autonomy, beneficence, non-maleficence, and justice. Utility?
    - Patient rights and informed consent
    - Confidentiality and privacy
    - Organ transplantation
- Readings
    - *Bioethics*: Chapter 19 & 30
    - Patient rights and ethics

Week 3: Research ethics

- Topics
    - History and regulations in research ethics
    - Animal research
    - Human subject research and clinical trials
- Readings
    - *Bioethics*: Chapter 29 & 32
    - What is ethics in research
    - Optional: Watch Spielberg, S. (Director). (1993, June 11). *Jurassic Park* [Video recording]. Universal Pictures, Amblin Entertainment.

Week 4: Genetic selection and modification

- Topics
    - Pre-implantation genetic diagnosis
    - Genetic manipulation of crops, animals, and humans
- Readings
    - *Bioethics*, Chapter 6

    - Ethical considerations of gene editing and genetic selection
    - Optional: Watch Niccol, A. (Director). (1997, October 24). *Gattaca* [Video recording]. Columbia Pictures, Jersey Films.

Week 5: End-of-life care

- Topics
    - Euthanasia and medical aid in dying
    - Hospice and palliative care ethics
- Readings
    - *Bioethics*: Chapter 3, 18, 24
    - Ethical decisions at the end-of-life care
    - Watch: Wang, L. (Director). (2019, August 9). *The Farewell* [Video recording]. Big Beach, Depth of Field, Kindred Spirit.

Week 6: Resource allocation and healthcare access

- Topics
    - Ethics of resource distribution in healthcare
    - Global and domestic health disparities
- Readings
    - *Bioethics,* Chapter 35 & 37
    - Resource allocation
    - The shared ethical framework to allocate scarce medical resources: A lesson from COVID-19
    - The moral problem of health disparities

Week 7: Ethics in public health

- Topics
    - Vaccines and public health mandates
    - Health promotion and disease prevention
    - Pandemic response ethics
- Readings
    - *Bioethics,* Chapter 39 & 41
    - Ethics and COVID-19
    - Ethical values and principles to guide the fair allocation of resources in response to a pandemic: a rapid systematic review
    - Individual Freedom or Public Health? A False Choice in the Covid Era

Week 8: Emerging issues and future directions

- Topics
    - AI in healthcare
    - Personalized medicine and genetic information privacy
    - Synthetic biology
- Readings
    - Ethical challenges and evolving strategies in the integration of artificial intelligence into clinical practice
    - Health equity and ethical considerations in using artificial intelligence in public health and medicine
    - Ethical, legal, and social implications of incorporating personalized medicine into healthcare