

# Ethics in Life Sciences

## BI 399

### 1. Course Description

Research in the life sciences raises numerous ethical issues, about the use of human cells and animals in experiments; the potential harms associated with certain kinds of work (e.g. synthetic biology); the role of conservation biology in environmental debates; debates around genetically modified organisms, among many others.

In addition, this course will explore how recent findings emerging in microbial biology offer us new ways for understanding ourselves. Are our physiological capacities the single product of our evolution? Are our psychological states and emotions, in a word our personality, nothing else than the expression of our organic properties? Today, microbial biology calls into question the most traditional understandings of human beings and, thus has a direct impact on our ethical conceptions.

### 2. Class Meetings

Class will meet on **Tuesday** and **Thursday** from **2:00 to 3:50pm** in **123 MCK**.

### 3. Office Hours and Contact Information

Instructor: Nicolae Morar  
Office: 250B SCH  
Email: nmorar@uoregon.edu  
Office Hours: Wed 10:30am-12:30pm

### 4. Course Requirements and Grading

Grades on papers & the final grade will be given on the standard 0-100 point grading scale:

100-93:	A
92-90:	A-
89-87:	B+
86-83:	B
82-80:	B-
79-77:	C+
76-73:	C
72-70:	C-
69-60:	D
59-0:	F

Final grades will be determined as follows:

Participation/ Attendance	15%
Homework (12)	40%
Midterm	20%
Final Exam	25%

**Class Participation and Attendance.** You are expected to participate actively in this class, which includes attending class, reading all assigned material prior to class, and participating productively and professionally in class discussions. Missing THREE classes FOR ANY REASON will result in a full grade reduction. An additional full grade reduction will be made for each additional missed class after the third. Three late arrivals for class will count as one absence. Discussion is crucial to this class, and I will do my best to make you feel at ease and welcome to contribute to the class conversation.

Please feel free to contribute any question, objection, or other thought about the topic at hand when such occurs to you. Although no relevant remark is out of bounds in this class, you will be expected to treat all members of the class respectfully and professionally. The quality and quantity of your participation in the class discussion will be evaluated in assigning 15% of your final grade. Obviously, failure to attend class will negatively affect your participation grade.

**Homework** – During the following weeks (2, 3, 6, 7, 8, 9), before each lecture meeting (on Tuesday and Thursday), you will have to submit your homework via Canvas. Your homework will consist of a series of questions (of various formats: multiple choice, short answers, etc.) on a philosophical issue related to the reading for that day or questions key to understanding that week's topic. The homework is an opportunity to think critically and to engage with the material.

**One Midterm and One Final Paper Exam:** Midterm and Final Papers will be 4 – 5 pages (double spaced, Times New Roman 12, standard margins) and paper topics will be posted 1 week before they are due. Papers not turned in the day they are due are LATE, and will lose one letter grade for each calendar day that they are late.

If you are absent on an exam day, you *must* (1) have contacted me in advance to tell me of the absence, and (2) return with a written excuse (i.e. medical), in order to be permitted to make up the exam.

***Failure to complete any of the two exams will result in an automatic failure in the course (grade F).***

Grading rubric for exam essays (midterm and final):

A = Excellent. No mistakes, well-written, and distinctive in some way or other.

B = Good. No significant mistakes, well-written, but not distinctive in any way.

C = Okay. Some errors, but a basic grasp of the material.

D = Poor. Several errors. A tenuous grasp of the material.

F = Failing. Problematic on all fronts indicating either no real grasp of the material or a complete lack of effort.

## 5. Learning Outcomes

This course has a number of learning outcomes. The instructors are interested in working with you to develop a series of more general skills that you will need during your college education and even after graduation. These include the ability to:

- Explain and summarize different approaches to ethics in life sciences.
- Articulate and evaluate philosophical arguments
- Develop reading skills (from philosophical texts to philosophy of science-oriented texts)
- Develop communication and argumentation skills
- Develop writing skills and learn how to manage your thinking-process in a limited amount of time.

## 6. Course Policies

**Incompletes and extensions** will be given *only* in the event of documented emergencies.

**Emergencies:** In the event of a major campus emergency, course requirements, deadlines and grading percentages are subject to changes that may be necessitated by a revised semester calendar or other circumstances.

**Sexual Violence:** The UO is committed to providing an environment free of all forms of discrimination and sexual harassment, including sexual assault, domestic and dating violence and gender-based stalking. If you (or someone you know) has experienced or experiences gender-based violence (intimate partner violence, attempted or completed sexual assault, harassment, coercion, stalking, etc.), know that you are not alone. UO has staff members trained to support survivors in navigating campus life, accessing health and counseling services, providing academic and housing accommodations, helping with legal protective orders, and more.

Please be aware that all UO employees are *required reporters*. This means that if you tell me about a situation, I may have to report the information to my supervisor or the Office of Affirmative Action and Equal Opportunity. Although I have to report the situation, you will still have options about how your case will be handled, including whether or not you wish to pursue a formal complaint. Our goal is to make sure you are aware of the range of options available to you and have access to the resources you need.

If you wish to speak to someone confidentially, you can call 541-346-SAFE, UO's 24h hotline, to be connected to a confidential counselor to discuss your options. You can also visit the SAFE website at [safe.uoregon.edu](http://safe.uoregon.edu)

**Accessibility:** If you have a documented disability, please contact me in advance. If you need accommodations in this class, I will work with the Accessible Education Center to find a solution for you.

**Academic Misconduct:** With the advent of the Internet, plagiarism has become an increasingly serious problem at universities around the country, particularly in classes like this one, where papers determine a substantial part of the grade.

In order to avoid plagiarizing from a source, both direct quotations and paraphrases or summaries of material found in traditional print media or on the internet must be acknowledged. If you have any

questions about how this definition will be interpreted, please do not hesitate to discuss the matter with me.

Plagiarism and cheating on exams undermines the integrity of the academic community. When undetected, it gives the perpetrator an unfair advantage over students who are graded on the basis of their own work. In this class we will do our best to detect plagiarism and cheating. Students who are aware of violations by others should bring this to my attention. This is the right thing to do. It is also in your own self-interest.

**There will be zero tolerance for plagiarism in this course.** Plagiarized papers will receive a 0, the student will automatically fail the course, and their name will be given to the university authorities. For more on the University of Oregon policy on plagiarism, see the following website:

<http://libweb.uoregon.edu/guides/plagiarism/students/>

**External Sources:** Using sources not listed on the syllabus in researching and writing your papers is fine, as long as they are both to the point, and are properly cited. And at all times, when in doubt, cite your sources! It is the best way to avoid being accused of plagiarism.

This is probably the best place to make this point, too: Wikipedia can be valuable for getting a very broad grasp of positions and debates, but when it gets into details, especially on philosophic topics, it is very often horrible – sketchy, convoluted, misinformed, and often simply wrong. If you wish to consult online resources, I suggest you use some of the other, much better sites. Most prominent is the Stanford Encyclopedia of Philosophy, but others are useful as well:

Stanford Encyclopedia of Philosophy - <http://plato.stanford.edu/>  
The Internet Encyclopedia of Philosophy - <http://www.iep.utm.edu/>

## 6. Website

All the information about this course and other comments or events related to the class will be posted on Canvas, which can be reached at: <http://canvas.uoregon.edu/>

## 7. Textbook

**There is no textbook for this course.** All required readings are posted on Canvas as Pdf files. Supplemental readings (only recommended) may be posted on the course website as the term progresses.

## 8. Topics and Readings

Here is a tentative schedule of topics and readings. Amendments and alterations will be announced in class as we go, both in class and on the webpage. Students will have the opportunity to propose some topics they would like to cover in this course.

<b>Week 1</b>	<b>Introduction to Ethics in Life Sciences</b>
3/31	Nola & Sankey, "What is this thing called scientific method?" Science & Ethics: what is the relationship between science and ethics?
4/2	Introduction to Moral Theory (values, duties, actions, character) Timmons, "The Nature and Evaluation of Moral Theories"
<b>Week 2</b>	<b>The Stem Cell Debate &amp; Genetic Chimeras - The Moral Status of Human Embryos</b>
4/7	J. Noonan, "An Almost Absolute Value in History" M. A. Warren, "On the Moral and Legal Status of Abortion"
4/9	Karpowicz & al, "Is it ethical to transplant human stem cells into nonhuman embryos?" Cyranoski, "Embryo editing divides scientists" Robert & Baylis, "Crossing Species Boundaries"
<b>Week 3</b>	<b>The Case of Cloning: Moral Emotions &amp; Reproductive Technologies</b>
4/14	Leon Kass, "The Wisdom of Repugnance"
4/16	Daniel Kelly, "Yuck: The Nature and Moral Significance of Disgust" (excerpts)
<b>Week 4</b>	<b>Environmental Ethics and Sustainability</b>
4/21	Tom Seager, <i>Guest Visitor</i> (1 <sup>st</sup> session of the Pisces Game) Class time <i>rescheduled</i> from 12:00-12:50 pm in Willamette Hall #110.
4/23	Tom Seager, <i>Guest Visitor</i> (2 <sup>nd</sup> session of the Pisces Game) Class time <i>rescheduled</i> from 2:00-3:20 pm in Lawrence Hall #115.
<b>4/24</b>	Midterm Exam questions will be posted on Canvas.
<b>Week 5</b>	<b>The Ethics of GMOs</b>
4/28	Rauch, "Can Frankenfood save the planet?" Engel, "Hunger, Duty, and Ecology: On What we owe to Starving Humans"
4/30	Comstock, "Ethics and Genetically Modified Food"
<b>5/1</b>	Midterm Exams are <b>due</b> in the Main Office of the Department of Philosophy (SCH Hall).
<b>Week 6</b>	<b>How to think about Life? The Constituents of Life</b>
5/5	Dupré, <i>The Constituents of Life</i> (Spinoza Lecture 1)
5/7	Dupré, <i>The Constituents of Life</i> (Spinoza Lecture 2)
<b>Week 7</b>	<b>How to think about Life? Novelty and Limitations of Metagenomics</b>
5/12	O'Malley & Dupré, "Size does not matter: Towards a more inclusive philosophy of biology"
5/14	O'Malley & Dupré, "Philosophical Themes in Metagenomics"
<b>Week 8</b>	<b>Engineering Life? Climate Change and Geoengineering</b>
5/19	Gardiner, "Is Arming the future with Geoengineering Really the lesser evil?" Gardiner, "Geoengineering & Moral Schizophrenia: What is the question?" (recommended)
5/21	Class Cancelled (conference invitation)
<b>Week 9</b>	<b>Engineering Life? Climate, Human Life, and Microbiology</b>
5/26	Singh & al., "Microbes & Climate Change" (Guest Lecturer: Kyle Meyer, IEE)
5/28	Liao & al. "Human Engineering and Climate Change"

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<b>Week 10</b>	<b>Therapy and Autonomy in Medicine: Humans as Ecosystems</b>
6/2	Bohannon & Morar, "Be Pluralist! A 2 <sup>nd</sup> Manifesto in Microbial Biology" Thiel, "Old Dogma, New Tricks – 21 <sup>st</sup> Century Phage Therapy"
6/4	Beever & Morar, "The Porosity of Autonomy: Social and Biological Constitution of the Individual in Biomedicine"

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Final Exam	Final Papers are due during the finals week - <b>the day when the Registrar office schedules our final exam - before 4:00pm</b> in the Main Office of the Department of Philosophy (SCH Hall).
	Final Exam questions will be posted a week prior to the due date.

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