

PHIL 1332: ENGINEERING ETHICS

Summer 2023
(8 week, session 1)
The Ohio State University

Instructor	Jason DeWitt
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Office Hours	On Zoom: Tuesdays 1pm-2pm or by appt.
Class Time/Location	Asynchronous Online

Description Welcome! I'm very excited to do philosophy with you all. Philosophy is, fundamentally, a conversation about some of the deepest mysteries of the universe and of the human condition. In this class, we will be focusing on the sub-field of philosophy called "ethics." Ethics is concerned with questions like the following: What is the morally right thing to do? Are there definite moral truths? Where do moral truths come from: God, our fellow human beings, or something else? Why should I be a good person whether or not there is an afterlife? We will be addressing some of these more general ethical questions, but we will also focus on ethical questions that specifically arise in the context of professional engineering: should I whistleblow on a company I work for if the company is doing something unethical? Are the designs of certain devices and technologies contributing to social inequality, and if so, how can we stop this? Is social media addictive, and if so, how should we put an end to its addictive qualities? Is a surveillance state a good idea, or is a world full of privacy ethically better? Is it morally permissible to invent superintelligent AI? This is just a sampling of some of the engineering ethics questions we will address.

We will begin the course by examining what philosophy is and what ethics is. Then we will develop a logical toolkit so that we can argue persuasively and reason logically about ethical matters. We'll spend some time wondering whether ethics is objective or subjective and why one ought to be good. Then we'll examine major ethical traditions from across the history of philosophy so that we can apply these theories to topics in engineering. Each of these major ethical theories has different answers as to what they think we should focus on in living ethical lives. Should we focus on the consequences of our actions, like how much happiness an action brings about? Should we focus on certain rules like "don't lie"? Or should we focus on cultivating good habits like becoming and being more generous people?

In the second half of the course, we will apply ethical reasoning, using the theories we've studied, to a variety of ethical issues in the engineering profession. We'll look at the ethics of addictive technologies, artificial intelligence, climate change, etc. We will focus on these real-world ethical issues and try to think clearly about them. We will refine our critical thinking skills through philosophical writing. And we will refine our own moral commitments through philosophical conversation and argumentation. Via conversation and writing assignments, students will learn to construct and critically evaluate ethical arguments and acquire knowledge of ethical concepts of central importance to their engineering lives.

Hopefully, this sounds exciting. Whether you are completely new to philosophy or have some experience, I hope we can all engage in this 3000-year-old conversation together and make some philosophical progress.

General Education Information This course partially fulfills your legacy GE requirements by being part of the *Cultures and Ideas* category of the old General Education curriculum. The goals of *Cultures and Ideas* GE courses are the following: Students evaluate significant cultural phenomena and ideas in order to develop capacities for aesthetic and historical response and judgment; and interpretation and evaluation.

Expected Learning Outcomes:

- Analyze and interpret major forms of human thought, culture, and expression.
- Evaluate how ideas influence the character of human beliefs, the perception of reality, and the norms which guide human behavior.

How this course attains these goals and outcomes: In this course, you will develop your capacities to critically analyze, interpret and evaluate prominent historical and contemporary philosophical arguments and theories.

This course also partially satisfies your new GE requirements by being part of the *Cultural Studies* category of the new General Education curriculum. The goals of *Cultural Studies* GE courses are the following: Successful students will evaluate significant cultural phenomena and ideas to develop capacities for aesthetic and cultural response, judgment, interpretation, and evaluation.

Expected Learning Outcomes:

- Analyze and interpret selected major forms of human thought, culture, ideas, or expression.
- Describe and analyze selected cultural phenomena and ideas across time using a diverse range of primary and secondary sources and an explicit focus on different theories and methodologies.
- Use appropriate sources and methods to construct an integrated and comparative perspective of cultural periods, events, or ideas that influence human perceptions, beliefs, and behaviors.
- Evaluate social and ethical implications in cultural studies.

How this course attains these goals and outcomes: In this course, you will develop your capacities to critically analyze, interpret and evaluate prominent historical and contemporary philosophical arguments and theories.

Class Conduct This class will be heavily discussion based. And we will discuss very sensitive political and religious topics, so even if we disagree with someone else, we must voice that disagreement in a respectful manner and treat all the members of class with human dignity. If we want to, as a class, we may develop a list of conversational ground rules for our discussion posts.

Carmen All course content such as announcements, slides, assignments, grades and required readings (or videos) will be made available on Carmen (or be made available via an Internet link on Carmen). You are expected to do the readings *before* watching the lecture video for which the reading is assigned. Check Carmen regularly. What is assigned on Carmen takes precedence over the assignments/readings detailed on the syllabus. Contact me via *email*, *instead* of via the Carmen messaging for faster responses.

Materials All of the assigned reading/watching/listening material will be available for free on Carmen or available free through the Internet via a link on Carmen. There are no required textbooks for the class.

Requirements and Grading Your overall course grade will be assigned based on the following components (with the corresponding percentage of overall grade for the assignment given in parenthesis):

- Weekly quizzes (15%).
- Weekly discussion boards (20%).
- Midterm exam (30%).
- Final paper (35%).

Detailed assignment sheets for the midterm exam and the final paper will be distributed closer to the time of assignment, though some minimal detail for each portion of your grade can be found in the next section of this syllabus. Tentative due dates will be given below. There will be no extra credit in this class. Because this course is condensing what is normally a 15-week course into 8 weeks, the workload is fairly dense. However, I have tried to keep it manageable while also covering everything I would cover in a 15-week version.

Descriptions of Course Assignments

The **weekly quizzes** will start in the second week of the semester (May 15th-21st). There will be one quiz per week on the readings and lectures for that week. The link for each quiz can be found on the week's module on Carmen. Each quiz is open book, open note. But students are not permitted to work with other students or others on the quizzes. You do not need to (and should not) look at sources outside course lectures and readings for the quizzes. The quiz for the week's module will be due on the Sunday of each week by 11:59pm EST. There is no time limit on the quizzes but they will close at 11:59pm EST every Sunday. There will be no quizzes either on the week the midterm is due or the final week of the term when the final paper is due. Philosophy is a skill that requires practice just like any other. It is important to hone your philosophical skills often via careful reading and listening to philosophical texts/sources. These quizzes serve as an incentive to help you do that.

The **weekly discussions boards** are a place for you to hone other philosophical skills – critical thinking, analytical and clear writing, and arguing respectfully. Beginning the first week of the course, each week students will submit one original discussion post on the discussion board and reply with one comment to someone else's post. A link to each weekly discussion board can be found in the module for that week. You'll get full credit for the week's discussion board only if you complete *both* the original post *and* the reply. For these discussion boards, I'll post a question that is based on the week's topic for you to answer. After answering that question in your initial post, you must then respond to at least one other student's post for full credit. Your initial discussion board and reply for the week's module will be due on Sunday of each week by 11:59pm EST. There will be no discussion board on the following weeks: the week the midterm is due and the final week of the summer session.

You must submit your own thoughts on the topic questions. If you need to refer to course lectures or readings to answer the discussion board question, be sure to explain arguments and terms from these things in your own words. Additionally, here are some other things you need to know in order to make good posts and receive full credit:

Limit of 4 responses per post: If there have already been replies from four other students to someone's discussion board post, you will need to reply to someone else. This will ensure that there is plenty of interaction with everyone's comments.

"I agree" is not enough: Avoid postings that are limited to 'I agree' or 'great idea', etc. If you agree (or disagree) with a posting then say **why** you agree/disagree by supporting your statement with concepts from the readings or by bringing in a related example or experience. Respond, don't just add on.

Quote your sources: Take advantage of the asynchronous nature of the discussion forum to look up any source you quote and make sure to cite these sources by mentioning the last name of the author, the publication and the year. No need to use a particular style.

Stick to the point: Address the questions as much as possible (don't let the discussion stray).

Innovate, don't replicate: You sometimes have the choice between several questions. If you're late contributing to the initial posts, try to answer questions that have not been addressed yet, even if they would not have been your first pick.

Take it beyond the readings: Do quote the readings but don't stop there. Ask questions you really want to find answers to, discuss what you found intriguing, confusing, and share your top takeaways.

I'll be monitoring and adding to the discussion throughout the semester.

There will be a **midterm exam** due Sunday, June 4th at 11:59PM EST. The midterm will be made available a week before its due and a link for the exam will be found on the module for that week on Carmen. It is to be taken and submitted on Carmen. Once you start the exam, you will have 80-minutes to complete it as long as you begin the exam at least 80 minutes prior to June 4th at 11:59pm EST. For example, if you begin the midterm at 11pm EST, then you will only have 59 minutes to take the exam. Be sure to give yourself plenty of time!

The midterm will be open book and open note so that you can use lecture notes and course readings while you complete the exam. It will cover the topics we discuss in first half of the semester. It will consist of short answer questions and the student must also choose and complete one essay question from a few options. You are not permitted to work with other students or others on the midterm. You must submit your own work and should not use sources outside of class lecture notes and readings. More information on the exam will be given closer to the time of the exam.

The **final paper** will be due by July 2nd at 11:59pm EST. This assignment will allow students to connect what we've learned in class to their own lives as future engineers. Though it is not necessary, you are permitted to use some outside sources in the paper but you should focus on interacting with course lectures and readings. Submit your own original work, which will be submitted on Carmen and checked by Turnitin for plagiarism. The paper must be 1600-1800 words (bibliography and title information not included in the word count).

The final paper will focus on the topics we have covered in the second half of the class such as the ethics of artificial intelligence, addictive technologies, climate change, etc. The prompts and more instruction for the final paper will be available on an detailed assignment sheet closer to the end of the semester.

Late Assignments Extensions will only be granted in extraordinary circumstances (or, of course, if you have an accommodation from SDLS which involves an extension). That being said, please email me ASAP if you need an extension because of some emergency. Late submissions of assignments will lose 5 points per day. No credit will be given after 5 days.

Instructor Feedback and Response Time For every assignment, I will have grades returned to the students within 14 days of submission. If you need to contact me out of class, please

email me at dewitt.197@osu.edu directly. I have technical difficulties getting Carmen messages, so if you message me via Carmen do not expect me to receive your message quickly. I will respond to emails within about 24 hours on weekdays and around 48 hours on weekends.

Grading Scale We will use the OSU Standard Grade Scheme:

- 93-100: A
- 90-92.9: A-
- 87-89.9: B+
- 83-86.9: B
- 80-82.9: B-
- 77-79.9: C+
- 73-76.9: C
- 70-72.9: C-
- 67-69.9: D+
- 60-66.9: D
- Below 60: E

Disability Services The University strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including mental health, chronic or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. SLDS contact information: slds@osu.edu; 614-292-3307; slds.osu.edu; 098 Baker Hall, 113 W. 12th Avenue.

Academic Misconduct Academic misconduct is a serious offense. You are responsible for knowing what counts as academic misconduct. You are also expected not to commit it. In accordance with Faculty Rule 3335-5-487, all suspected cases of academic misconduct will be reported to the university's Committee on Academic Misconduct who will then be responsible for investigating or establishing procedures for the investigation of all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. For additional information, see the Code of Student Conduct <http://studentlife.osu.edu/csc/>.

We will discuss what and how to cite sources for philosophical writing as we go through our first set of writing assignments. We will also discuss which online resources are the most reliable sources for writing philosophy.

Commitment to a diverse and inclusive learning environment The Ohio State University arms the importance and value of diversity in the student body. Our programs and

curricula reflect our multicultural society and global economy and seek to provide opportunities for students to learn more about persons who are different from them. We are committed to maintaining a community that recognizes and values the inherent worth and dignity of every person; fosters sensitivity, understanding, and mutual respect among each member of our community; and encourages each individual to strive to reach his or her own potential. Discrimination against any individual based upon protected status, which is defined as age, color, disability, gender identity or expression, national origin, race, religion, sex, sexual orientation, or veteran status, is prohibited.

Your Mental Health As a student you may experience a range of issues that can cause barriers to learn, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. No matter where you are engaged in distance learning, The Ohio State University's Student Life Counseling and Consultation Service (CCS) is here to support you. If you find yourself feeling isolated, anxious or overwhelmed, on-demand resources are available at go.osu.edu/ccsondemand. You can reach an on-call counselor when CCS is closed at 614-292-5766, and 24-hour emergency help is also available through the 24/7 National Prevention Hotline at 1-800-273-TALK or at suicidepreventionlifeline.org. The Ohio State Wellness app is also a great resource available at go.osu.edu/wellnessapp.

Tentative Course Schedule

The schedule below is tentative. Any unexpected changes to the schedule will be announced on Carmen as the course proceeds. ****Do all assignments, readings and video viewings on or before the day assigned.**** All discussion board posts and quizzes are due by 11:59pm EST the day assigned (always on the Sunday of the week). Some of the assignments, clearly labeled as "RECOMMENDED" are recommended and not required.

Week One

May 9th Introduction
 | Read the Syllabus. Watch lecture 1.

May 10th Philosophy & Logic
 | Read "Introduction: On the Study of Philosophy" and "Logical Toolkit" by Perry, Bratman, and Fischer (2010). Watch lecture 2.

May 12th Ethical Questions & Codes
 | Read selections from chs. 1-2 of *Ethics for Engineers* by Peterson. Watch lecture 3.

May 14th
 | Complete week 1 discussion post.

Week Two

May 15th Meta-ethics
 | Read "The Challenge of Moral Relativism" by Rachels. Watch lecture 4.

May 17th Meta-ethics
 | Read "Ten Arguments Against Moral Objectivity" by Shafer-Landau. Read "Why I Am an Objectivist about Ethics (And So Are You)" by Enoch. Watch lecture 5.

May 18th Meta-ethics
 | Read *Euthyphro* by Plato. Watch lecture 6.

May 19th Why Be Good?

Read “Why Be Good? Plato” from Notre Dame. Watch “PHILOSOPHY - The Good Life: Plato” by Wireless Philosophy. Watch lecture 7.

May 21st

Complete week 2 quiz. Complete week 2 discussion posts.

Week Three

May 22nd Virtue Ethics (Intro)

Required: read selections from “Virtue Ethics” by Shafer-Landau. Read “The Good Engineer: Giving Virtue Its Due in Engineering Ethics” by Harris. Watch lecture 8.

RECOMMENDED, **but not required:** Watch “Confucius - How To Be Happy (Confucianism)” by Philosophies for Life. Watch “PHILOSOPHY - The Good Life: Aristotle” by Wireless Philosophy.

May 24th Virtue Ethics (Objections)

Read selections from “Virtue Ethics” by Shafer-Landau. Watch lecture 9.

May 26th Utilitarianism (Intro)

Read “What is Act Utilitarianism” by Feldman. Watch lecture 10.

May 28th

Complete week 3 quiz. Complete week 3 discussion posts.

Week Four

May 30th Utilitarianism (Objections)

Read selections from *Ethics for Engineers* by Peterson. Watch lecture 11.

May 31st Utilitarianism

Read “Famine, Affluence, and Morality” by Peter Singer. Watch lecture 12.

June 1st Deontology (Intro)

Read “Are There Absolute Moral Rules?” by Rachels. Watch “Kant & Categorical Imperatives: Crash Course Philosophy 35” by CrashCourse. Watch lecture 13.

June 2nd Deontology (Objections)

Read selections from *The Fundamentals of Ethics* by Shafer-Landau. Watch lecture 14.

June 4th

Complete midterm exam.

Week Five

June 5th Whistleblowing

Read ch. 7 of Peterson’s *Ethics for Engineers*. Read “Whistle-blowing and Employee Loyalty” by Druska. Watch lecture 15.

June 7th Whistleblowing

Watch lecture 16.

June 9th Technology & Inequality

Read “The Deadly Truth about a World Built for Men – From Stab Vests to Car Crashes” by Caroline Criado Perez. Read “Pulse Oximeter Devices Have Higher Error Rate in Black Patients” by Roni Caryn Rabin. Read selections from “Disability and Technology: Building Barriers or Creating Opportunities” by Gregor, Sloan, and Newell. Watch lecture 17.

June 11th

Complete week 5 quiz. Complete week 5 discussion posts.

Week Six

June 12th Technology & Inequality

- █ Read “The Appeal to Diversity” by Boonin. Watch lecture 18.
- June 14thAddictive Technologies
- █ Read excerpts from “Ethics of the Attention Economy: The Problem of Social Media Addiction” by Bhargava and Velasquez. Watch lecture 19.
- June 16thAddictive Technologies
- █ Read selections from “Addiction, Autonomy, and the Internet” by Hartford and Stein. Watch lecture 20.
- June 18th
- █ Complete week 6 quiz. Complete week 6 discussion posts.

Week Seven

- June 20thPrivacy & Surveillance
- █ Read “The Vulnerable World Hypothesis” by Bostrom. Watch lecture 21.
- June 21stPrivacy & Surveillance
- █ Read excerpts from “Privacy and the Limits of Law” by Gavison. Watch lecture 22.
- June 23rdArtificial Intelligence
- █ Read ch. 8 from *Superintelligence* by Bostrom. Watch lecture 23.
- June 25th
- █ Complete week 7 quiz. Complete week 7 discussion posts.

Week Eight

- June 26thArtificial Intelligence
- █ Read excerpts from *Superintelligence* by Bostrom. Watch lecture 24.
- June 28thSustainability
- █ Read ch. 16 from *Ethics for Engineers* by Peterson. Read “Volkswagen: The Scandal Explained” by Hotten. Read “How VW Tried to Cover Up the Emissions Scandal” by Leggett. Watch lecture 25.
- June 30thComplicity
- █ Read selections of “Responsibility in Engineering” by Harris, et. al. Watch lecture 26.
- July 2nd
- █ Submit final paper.

Important Assignment Dates (Also Tentative!)

- Midterm examJune 4th at 11:59pm
- Final paperJuly 2nd at 11:59pm