

Term Information

Effective Term Spring 2022
Previous Value Spring 2020

Course Change Information

What change is being proposed? (If more than one, what changes are being proposed?)

To add the option of teaching this course online.

What is the rationale for the proposed change(s)?

7080 is a 1-credit course that fulfills an ethics requirement for graduate students in Electrical and Computer Engineering. It is always taught in conjunction with 1332, a 3-credit engineering ethics course for undergraduates. Because 1332 is already approved for asynchronous distance learning and is often taught in that way, it would be desirable to be able to teach 7080 in the same way, so that the instructor who is teaching the two classes in conjunction can use the same mode of delivery for both. (When the two classes are taught in conjunction, the students in 1332 watch all the lectures and do all the readings from 7080, but they also watch additional lectures and do additional readings.) Moreover, ECE prefers an online format for 7080, since it allows us to expand enrollment in response to student demand without being limited by classroom sizes.

What are the programmatic implications of the proposed change(s)?

(e.g. program requirements to be added or removed, changes to be made in available resources, effect on other programs that use the course)?

We anticipate no programmatic implications as a result of this change.

Is approval of the request contingent upon the approval of other course or curricular program request? No

Is this a request to withdraw the course? No

General Information

Course Bulletin Listing/Subject Area	Philosophy
Fiscal Unit/Academic Org	Philosophy - D0575
College/Academic Group	Arts and Sciences
Level/Career	Graduate
Course Number/Catalog	7080
Course Title	Engineering Ethics
Transcript Abbreviation	Engineering Ethics
Course Description	Equip engineering grad students with skills for resolving moral issues that may arise in professional contexts. Includes an introduction to ethics, followed by contemporary issues in engineering ethics, such as the nature and moral status of technology; responsibility; privacy; honesty and integrity, safety and risk; environmental ethics; and the ethics of artificial intelligence.
Semester Credit Hours/Units	Fixed: 1

Offering Information

Length Of Course	14 Week, 12 Week, 8 Week, 7 Week, 6 Week, 4 Week
Flexibly Scheduled Course	Never
Does any section of this course have a distance education component?	Yes
Is any section of the course offered	100% at a distance
<i>Previous Value</i>	No
Grading Basis	Satisfactory/Unsatisfactory

Repeatable	No
Course Components	Lecture
Grade Roster Component	Lecture
Credit Available by Exam	No
Admission Condition Course	No
Off Campus	Never
Campus of Offering	Columbus

Prerequisites and Exclusions

Prerequisites/Corequisites	Prereq: Grad standing in ECE.
Exclusions	
Electronically Enforced	Yes

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code	14.1001
Subsidy Level	Doctoral Course
Intended Rank	Masters, Doctoral

Requirement/Elective Designation

Required for this unit's degrees, majors, and/or minors

Course Details

Course goals or learning objectives/outcomes

- To introduce engineering grad students to ethics and to equip them with skills for resolving moral issues that may arise in professional contexts.

Content Topic List

- Ethical Dilemmas, Moral choices, and Codes of Ethics
- Moral Theories: Utilitarianism
- Moral Theories: Deontology
- Engineering as Social Experimentation
- Safety and Risk
- Workplace Responsibilities and Rights
- Honesty
- Environmental Ethics
- Global Issues
- Big Data and Privacy
- Autonomous Vehicles
- Artificial Intelligence: Short-Term Issues
- Artificial Intelligence: Long-Term Issues

COURSE CHANGE REQUEST
7080 - Status: PENDING

Last Updated: Vankeerbergen, Bernadette
Chantal
08/29/2021

Sought Concurrence

No

Attachments

- PHILOS 7080 asc_distance_approval_cover_sheet 8.2021.docx: ASC Tech Cover Sheet
(Other Supporting Documentation. Owner: Shuster, Amy Lynne)
- PHILOS 7080 in asc_DL_syllabus_template 8.2021.docx: DL syllabus
(Syllabus. Owner: Shuster, Amy Lynne)
- PHILOS 7080 Syllabus in person 2020.pdf: In Person syllabus
(Syllabus. Owner: Shuster, Amy Lynne)

Comments

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Shuster, Amy Lynne	08/16/2021 04:08 PM	Submitted for Approval
Approved	Lin, Eden	08/16/2021 04:33 PM	Unit Approval
Approved	Vankeerbergen, Bernadette Chantal	08/29/2021 11:43 AM	College Approval
Pending Approval	Cody, Emily Kathryn Jenkins, Mary Ellen Bigler Hanlin, Deborah Kay Hilty, Michael Vankeerbergen, Bernadette Chantal Steele, Rachel Lea	08/29/2021 11:44 AM	ASCCAO Approval



SYLLABUS

PHILOS/7080

Engineering Ethics

Spring 2022 (full term)

1 credit hour

100% Asynchronous Distance Learning

COURSE OVERVIEW

Instructor

Instructor: **Eden Lin**

Email address: lin.2659@osu.edu (preferred contact method)

Office hours: **Wednesdays 1:00-2:00pm**

Grader

Instructor: **TBA**

Email address:

Office hours:

Prerequisites

Graduate standing in Electrical and Computer Engineering (ECE) required.

Course description

The purpose of this course is to equip engineering students with the skills necessary for resolving moral issues that are likely to arise in professional contexts. We will begin the course with a brief introduction to ethics and will then turn to contemporary issues in engineering ethics. We will discuss whistleblowing, conflicts of interest, diversity in the workplace, risk and uncertainty, privacy and surveillance, sustainability, and the ethics of artificial intelligence.

HOW THIS ONLINE COURSE WORKS

Mode of delivery: This course is 100% online and asynchronous. There are no required sessions when you must be logged in to Carmen at a scheduled time.

Pace of online activities: The class is divided into weekly modules. Each Monday, the lecture for that week is posted on Carmen. Students must watch the lecture, do the assigned reading, and complete a brief quiz on Carmen on that week's material (lecture and/or reading) by 11:59pm on Sunday. There are eight weeks during the semester in which, in addition to the aforementioned tasks, students must also turn in a homework assignment on Carmen by 11:59pm on Sunday. Students are expected to keep pace with weekly deadlines but may schedule their efforts freely within that time frame.

Grading: This course is graded on an S/U (i.e., satisfactory/unsatisfactory) basis.

Credit hours and work expectations: This is a **1-credit-hour course**. According to Ohio State policy (go.osu.edu/credithours), students should expect around 1 hour per week of time spent on direct instruction (watching the lecture) in addition to 2 hours of other work (doing the reading, completing the quiz, and—on weeks with a homework assignment—completing the homework assignment).

Attendance and participation requirements: Because this course is completely asynchronous, there are no class meetings that you must attend. However, I have the following expectations for everyone's participation:

- **Participating in online activities: AT LEAST ONCE PER WEEK**
Because the lectures, quizzes, and homework assignments are all on Carmen, and because you must watch a lecture and take a quiz each week, you must log in to the course on Carmen every week. (During most weeks you will probably log in several times.) If you have a situation that might cause you to miss an entire week of class, discuss it with me *as soon as possible*.
- **Zoom instructor office hours: OPTIONAL.**
You are encouraged to note my office hours in your weekly schedule and attend as you have questions, but these sessions are optional.

COURSE MATERIALS AND TECHNOLOGIES

Textbooks

Required

- *Ethics for Engineers* by Martin Peterson (ISBN: 978-0190609191). It can be purchased at the University Bookstore.
- Other course materials available on Carmen.

Course technology

Technology support

For help with your password, university email, Carmen, or any other technology issues, questions, or requests, contact the Ohio State IT Service Desk. Standard support hours are available at ocio.osu.edu/help/hours, and support for urgent issues is available 24/7.

- **Self-Service and Chat support:** ocio.osu.edu/help
- **Phone:** 614-688-4357(HELP)
- **Email:** servicedesk@osu.edu
- **TDD:** 614-688-8743

Technology skills needed for this course

- Basic computer and web-browsing skills
- Navigating Carmen (go.osu.edu/canvasstudent)

Digital Flagship

Digital Flagship is a student success initiative aimed at helping you build digital skills for both college and career. This includes offering an engaging collection of digital tools and supportive learning experiences, university-wide opportunities to learn to code, and a Design Lab to explore digital design and app development. Digital Flagship resources available to help Ohio State students include on-demand tutorials, The Digital Flagship Handbook (your guide for all things tech-related), workshops and events, one-on-one tech consultations with a peer or Digital Flagship staff member, and more. To learn more about how Digital Flagship can help you use technology in your courses and grow your digital skills, visit go.osu.edu/dfresources.

Required equipment

- **Computer:** current Mac (MacOs) or PC (Windows 10) with high-speed internet connection and speakers
- **Other:** a mobile device (smartphone or tablet) to use for BuckeyePass authentication

If you do not have access to the technology you need to succeed in this class, review options for technology and internet access at go.osu.edu/student-tech-access.

Required software

- **Microsoft Office 365:** All Ohio State students are now eligible for free Microsoft Office 365. Visit [the installing Office 365](https://go.osu.edu/office365help) (go.osu.edu/office365help) help article for full instructions.

Carmen access

You will need to use BuckeyePass (buckeyepass.osu.edu) multi-factor authentication to access your courses in Carmen. To ensure that you are able to connect to Carmen at all times, it is recommended that you do each of the following:

- Register multiple devices in case something happens to your primary device. Visit the BuckeyePass - Adding a Device help article for step-by-step instructions (go.osu.edu/add-device).
- Request passcodes to keep as a backup authentication option. When you see the Duo login screen on your computer, click **Enter a Passcode** and then click the **Text me new codes** button that appears. This will text you ten passcodes good for 365 days that can each be used once.
- Install the Duo Mobile application (go.osu.edu/install-duo) on all of your registered devices for the ability to generate one-time codes in the event that you lose cell, data, or Wi-Fi service.

If none of these options will meet the needs of your situation, you can contact the IT Service Desk at 614-688-4357(HELP) and IT support staff will work out a solution with you.

GRADING AND FACULTY RESPONSE

How your grade is determined

You will get a satisfactory (S) final grade if you score 60% or higher on the basis of your performance on the weekly quizzes and homework assignments, where those two categories are given the following weights: weekly quizzes (20%), homework assignments (80%). If you score less than 60%, you will get an unsatisfactory (U) final grade.

Descriptions of major course assignments

Weekly Quizzes

Description: Each week, by *11:59pm on Sunday*, you will need to complete a short quiz on Carmen on the lecture and reading for that week. The main point of these quizzes is to ensure that you are keeping up with the lectures and readings. Accordingly, they will consist of relatively easy multiple-choice or true-false questions, and you will have unlimited attempts on them until you get the questions right. This means that, as long as you take a few minutes each week to complete the quiz, you should get the full 20% of your final grade that is attributable to quizzes.

Academic integrity and collaboration: You may consult any materials you like when completing the weekly quizzes, but you may not work on it with other people.

Homework Assignments

Description: For eight out of the fifteen weeks of the semester, you will have a homework assignment, due on Carmen at *11:59pm on Sunday*, that requires you to write approx. 200-400 words (total) in response to 1-3 questions. Homework assignments will be graded “satisfactory” or “unsatisfactory.”

Any homework assignment that you submit late will receive an ‘unsatisfactory’ grade unless you have been granted an extension.

Academic integrity and collaboration: You may consult any materials you like when doing the homework, but you may not work on it with other people, and your answers must be written entirely by you. We will use TurnItIn to check for plagiarism on homework assignments.

Late assignments

You will not get any credit for quizzes or homework assignments that you submit late unless you have what the instructors deem a legitimate excuse. If you are dealing with anything in life that, in your opinion, justifies your getting an extension on quiz or homework assignment, please email me to request an extension.

Instructor feedback and response time

I am providing the following list to give you an idea of my intended availability throughout the course. (Remember that you can call **614-688-4357(HELP)** at any time if you have a technical problem.)

- Preferred contact method: If you have a question, please contact me first through my Ohio State email address. I will reply to emails within 24 hours on days when class is in session at the university.
- Class announcements: I will send all important class-wide messages through the Announcements tool in CarmenCanvas. Please check your notification preferences (go.osu.edu/canvas-notifications) to ensure you receive these messages.
- Grading and feedback: For assignments submitted before the due date, the graders will try to provide feedback and grades within seven days. Assignments submitted after the due date may have reduced feedback, and grades may take longer to be posted.

OTHER COURSE POLICIES

Communication guidelines

The following are my expectations for how we should communicate as a class, especially on the homework assignments. Above all, please remember to be respectful and thoughtful.

- **Writing style:** Use good grammar, spelling, and punctuation. A more conversational tone is fine for non-academic topics.
- **Tone and civility:** Let's maintain a supportive learning community where everyone feels safe and where people can disagree amicably. Remember that sarcasm doesn't always come across online. I will provide specific guidance for discussions on controversial or personal topics.
- **Citing your sources:** When we have academic discussions, please cite your sources to back up what you say. For the textbook or other course materials, list at least the title and page numbers. For online sources, include a link.
- **Backing up your work:** Consider composing your homework in a word processor, where you can save your work, and then copying into the Carmen discussion.

Academic integrity policy

See **Descriptions of major course assignments**, above, for my specific guidelines about collaboration and academic integrity in the context of this online class.

Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the university's [Code of Student Conduct](http://studentconduct.osu.edu) (studentconduct.osu.edu), and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must recognize that failure to follow the rules and guidelines established in the university's Code of Student Conduct and this syllabus may constitute "Academic Misconduct."

The Ohio State University's Code of Student Conduct (Section 3335-23-04) defines academic misconduct as: "Any activity that tends to compromise the academic integrity of the university or subvert the educational process." Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the university's Code of Student Conduct is never considered an excuse for academic misconduct, so I recommend that you review the Code of Student Conduct and, specifically, the sections dealing with academic misconduct.

If I suspect that a student has committed academic misconduct in this course, I am obligated by university rules to report my suspicions to the Committee on Academic Misconduct. If COAM determines that you have violated the university's *Code of Student Conduct* (i.e., committed academic misconduct), the sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the university.

If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact me.

Other sources of information on academic misconduct (integrity) to which you can refer include:

- Committee on Academic Misconduct web page (go.osu.edu/coam)
- Ten Suggestions for Preserving Academic Integrity (go.osu.edu/ten-suggestions)
- Eight Cardinal Rules of Academic Integrity (go.osu.edu/cardinal-rules)

Student Services and Advising

University Student Services can be accessed through BuckeyeLink. More information is available here: <https://contactbuckeyelink.osu.edu/>

Copyright for instructional materials

The materials used in connection with this course may be subject to copyright protection and are only for the use of students officially enrolled in the course for the educational purposes associated with the

course. Copyright law must be considered before copying, retaining, or disseminating materials outside of the course.

Creating an Environment Free from Harassment, Discrimination, and Sexual Misconduct

The Ohio State University is committed to building and maintaining a community to reflect diversity and to improve opportunities for all. All Buckeyes have the right to be free from harassment, discrimination, and sexual misconduct. Ohio State does not discriminate on the basis of age, ancestry, color, disability, ethnicity, gender, gender identity or expression, genetic information, HIV/AIDS status, military status, national origin, pregnancy (childbirth, false pregnancy, termination of pregnancy, or recovery therefrom), race, religion, sex, sexual orientation, or protected veteran status, or any other bases under the law, in its activities, academic programs, admission, and employment. Members of the university community also have the right to be free from all forms of sexual misconduct: sexual harassment, sexual assault, relationship violence, stalking, and sexual exploitation.

To report harassment, discrimination, sexual misconduct, or retaliation and/or seek confidential and non-confidential resources and supportive measures, contact the Office of Institutional Equity:

1. Online reporting form at equity.osu.edu,
2. Call 614-247-5838 or TTY 614-688-8605,
3. Or email equity@osu.edu

The university is committed to stopping sexual misconduct, preventing its recurrence, eliminating any hostile environment, and remedying its discriminatory effects. All university employees have reporting responsibilities to the Office of Institutional Equity to ensure the university can take appropriate action:

- All university employees, except those exempted by legal privilege of confidentiality or expressly identified as a confidential reporter, have an obligation to report incidents of sexual assault immediately.
- The following employees have an obligation to report all other forms of sexual misconduct as soon as practicable but at most within five workdays of becoming aware of such information: 1. Any human resource professional (HRP); 2. Anyone who supervises faculty, staff, students, or volunteers; 3. Chair/director; and 4. Faculty member.

Commitment to a diverse and inclusive learning environment

The Ohio State University affirms 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.

Land Acknowledgement

We would like to acknowledge the land that The Ohio State University occupies is the ancestral and contemporary territory of the Shawnee, Potawatomi, Delaware, Miami, Peoria, Seneca, Wyandotte, Ojibwe and Cherokee peoples. Specifically, the university resides on land ceded in the 1795 Treaty of Greenville and the forced removal of tribes through the Indian Removal Act of 1830. I/We want to honor the resiliency of these tribal nations and recognize the historical contexts that has and continues to affect the Indigenous peoples of this land.

More information on OSU's land acknowledgement can be found here:

<https://mcc.osu.edu/about-us/land-acknowledgement>

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.

ACCESSIBILITY ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES

Requesting accommodations

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. In light of the current pandemic, students seeking to request COVID-related accommodations may do so through the university's request process, managed by Student Life Disability Services.

Disability Services Contact Information

- Phone: 614-292-3307
- Website: slds.osu.edu
- Email: slds@osu.edu
- In person: [Baker Hall 098, 113 W. 12th Avenue](#)

Accessibility of course technology

This online course requires use of CarmenCanvas (Ohio State's learning management system) and other online communication and multimedia tools. If you need additional services to use these technologies, please request accommodations with your instructor.

- Canvas accessibility (go.osu.edu/canvas-accessibility)
- Streaming audio and video
- Collaborative course tools

COURSE SCHEDULE

Please remember the following key points about the course:

- Each week (with the exception of Spring Break and the week that begins on the last day of class, April 25), you will watch one pre-recorded lecture (released on Carmen on Monday) and do some assigned reading.
- Each week (with the exception of Spring Break and the week that begins on the last day of class, April 25), you will complete a quiz on that week's lecture and reading by *11:59pm on Sunday* on Carmen.
- For eight out of the fifteen weeks of the semester, you will also complete a homework assignment by *11:59pm on Sunday* on Carmen.

The weekly schedule below displays the reading assignments as well as the due dates for the homework assignments.

Jan. 10 – 16

Introduction

Peterson, ch. 1

Jan. 17 – 23

Codes of Ethics, Ethical Principles, and Ethical Theories

Peterson, ch. 2 and p. 63

Fred Feldman, “What Is Act Utilitarianism?” (pp. 18-20 – i.e., the section, ‘Evaluations of Normative Status’)

Homework #1 due at 11:59pm on Sunday

Jan. 24 – 30

Ethical Theories: Utilitarianism, Part I

Fred Feldman, “What Is Act Utilitarianism?”

Jan. 31 – Feb. 6

Ethical Theories: Utilitarianism, Part II

Fred Feldman, “Act Utilitarianism: Arguments Pro and Con” (pp. 36-41 – i.e., the sections, ‘The “Too High for Humanity” Objection’ and ‘The “Lack of Time” Objection’)

Peterson, pp. 71-73 (i.e., the section, ‘Some Objections to Utilitarianism’)

Homework #2 due at 11:59pm on Sunday

Feb. 7 – 13

Ethical Theories: Deontology

W. D. Ross, “What Makes Right Acts Right?” (excerpts)

Homework #3 due at 11:59pm on Sunday

Feb. 14 – 20

Whistleblowing

Peterson, pp. 55-61 and ch. 7

Ronald Duska, “Whistle-Blowing and Employee Loyalty”

Feb. 21 – 27

Conflicts of Interest

Peterson, ch. 8 (skip p. 114)

Michael Davis, “Introduction” (excerpts)

Homework #4 due at 11:59pm on Sunday

Feb. 28 – Mar. 6

Diversity and Affirmative Action

Roni Caryn Rabin, “Pulse Oximeter Devices Have Higher Error Rate in Black Patients”

David Boonin, *Should Race Matter?* ch. 4 (pp. 135-43; skip the two full paragraphs on p. 139 and the last paragraph on p. 143)
 David Boonin, *Should Race Matter?* ch. 5 (pp. 176-79, 188-94 – i.e., the sections, ‘The Right to be Judged on One’s Individual Merits’, ‘The Overgeneralizations Argument’, and ‘If Discrimination Was Wrong Then, Then It’s Wrong Now’)

Mar. 7 – 13

Risk and Uncertainty

Peterson, ch. 10 (pp. 129-31, 134-38)
 Harris et al., *Engineering Ethics: Concepts and Cases* (pp. 125-26)

Homework #5 due at 11:59pm on Sunday

Mar. 14 – 20

Spring Break

Mar. 21 – 27

Sustainability

Peterson, ch. 16 (pp. 201-08)

Mar. 28 – Apr. 3

Privacy and Surveillance

Nick Bostrom, “The Vulnerable World Hypothesis” (pp. 1-10, 17-19, 23-33)

Homework #6 due at 11:59pm on Sunday

Apr. 4 – 10

Autonomous Weapon Systems

Robert Sparrow, “Killer Robots” (stop just before the section entitled ‘Robot Warriors and Child Soldiers’)
 Ronald Arkin, “The Case for Ethical Autonomy in Unmanned Systems” (pp. 332-35, 338)

Apr. 11 – 17

Algorithmic Bias

Julia Angwin, Jeff Larson, Surya Mattu, and Lauren Kirchner (ProPublica), “[Machine Bias](#)”
 Rashida Richardson, Jason Schultz, and Kate Crawford, “Dirty Data, Bad Predictions” (pp. 192-203, 218-27)

Homework #7 due at 11:59pm on Sunday

Apr. 18 – 25

Artificial Superintelligence

Nick Bostrom, *Superintelligence* (excerpts)

Homework #8 due at 11:59pm on Sunday

Engineering Ethics

The purpose of this course is to equip engineering students with the skills necessary for resolving moral issues that are likely to arise in professional contexts. We will begin the course with a brief introduction to ethics and will then turn to contemporary issues in engineering ethics. We will discuss whistleblowing, conflicts of interest, risk and uncertainty, sustainability, surveillance and privacy, autonomous vehicles, and the ethics of artificial intelligence.

Course Number: PHILOS 7080/2194

Room: Orton Hall 110

Meeting Times: Monday, 10:20am – 11:15am

Professor: Eden Lin
328 University Hall
Office hours: by appointment
lin.2659@osu.edu

Grader: Tyler Cook
337E University Hall
Office hours: by appointment
cook.1627@osu.edu

Course Materials: The textbook for the class is *Ethics for Engineers* by Martin Peterson. It can be purchased at the University Bookstore. All other course materials will be available on Carmen or elsewhere online. Please do each assigned reading *before* the class meeting that it is listed next to.

Grading Information: You will be given a satisfactory (S) or unsatisfactory (U) final grade on the basis of your performance in two domains: attendance and 9 homework assignments (each of which will require you to write approximately 200-400 words in response to 1-3 questions). You will get an S for the course if (1) you don't miss more than 2 classes without a legitimate, documented excuse (e.g., an illness for which you have a doctor's note) *and* (2) you get a 'satisfactory' grade for at least 6 of the 9 homework assignments. You will get a U if you don't meet both of those requirements.

Late Homework: Any homework that you submit late will receive an 'unsatisfactory' grade unless you have what the instructors consider a legitimate excuse for submitting it late.

Academic Misconduct: It is the responsibility of the Committee on Academic Misconduct to investigate or establish 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. Instructors shall report all instances of academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct: <http://studentlife.osu.edu/csc/>.

Disability Accommodations: Students with disabilities (including mental health, chronic, or temporary medical conditions) that have been certified by the Office of Student Life Disability Services will be appropriately accommodated and should inform the instructor as soon as possible of their needs. The Office of Student Life Disability Services is located in 098 Baker Hall, 113 W. 12th Avenue; telephone (614) 292-3307, slds@osu.edu; <http://slds.osu.edu>.

[This version of the syllabus is from Feb. 17, 2020. Please check Carmen to make sure that it hasn't been superseded by a more recent version.]

Class Schedule

Monday, Jan. 6

Introduction

Peterson, ch. 1

Headshot due at 11:59pm on Wednesday, Jan. 8

Monday, Jan. 13

Codes of Ethics, Ethical Principles, and Ethical Theories

Peterson, ch. 2 and p. 63

Fred Feldman, "What Is Act Utilitarianism?" (pp. 18-20 – i.e., the section, 'Evaluations of Normative Status')

Homework #1 due at 11:59pm on Wednesday, Jan. 15

Monday, Jan. 27

Ethical Theories: Utilitarianism, Part I

Fred Feldman, "What Is Act Utilitarianism?"

Monday, Feb. 3

Ethical Theories: Utilitarianism, Part II

Fred Feldman, "Act Utilitarianism: Arguments Pro and Con" (pp. 36-41 – i.e., the sections, 'The "Too High for Humanity" Objection' and 'The "Lack of Time" Objection')

Peterson, pp. 71-73 (i.e., the section, 'Some Objections to Utilitarianism')

Homework #2 due at 11:59pm on Wednesday, Feb. 5

Monday, Feb. 10

Ethical Theories: Deontology

W. D. Ross, "What Makes Right Acts Right?" (excerpts)

Homework #3 due at 11:59pm on Wednesday, Feb. 12

Monday, Feb. 17

Whistleblowing

Peterson, pp. 55-61 (i.e., the section, 'Applied Ethics and Ethical Theories') and ch. 7

Ronald Duska, "Whistle-Blowing and Employee Loyalty"

Monday, Feb. 24

Conflicts of Interest

Peterson, ch. 8

Michael Davis, "Introduction" (excerpts)

Homework #4 due at 11:59pm on Wednesday, Feb. 26

Monday, March 2 **Risk and Uncertainty**

Peterson, ch. 10

Monday, March 16 **Sustainability**

Peterson, ch. 16

Homework #5 due at 11:59pm on Wednesday, March 18

Monday, March 23 **Privacy and Surveillance, Part I**

Peterson, ch. 11

New York Times, "[Twelve Million Phones, One Dataset, Zero Privacy](#)"

Monday, March 30 **Privacy and Surveillance, Part II**

New York Times, "[A Surveillance Net Blankets China's Cities, Giving Police Vast Powers](#)"

Nick Bostrom, "The Vulnerable World Hypothesis" (excerpts)

Homework #6 due at 11:59pm on Wednesday, April 1

Monday, April 6 **Autonomous Vehicles**

Patrick Lin, "Why Ethics Matters for Autonomous Cars"

Homework #7 due at 11:59pm on Wednesday, April 8

Monday, April 13 **Algorithmic Bias and Inscrutability**

Cathy O'Neil, *Weapons of Math Destruction* (excerpts)

Will Knight, "The Dark Secret at the Heart of AI" (excerpts)

Homework #8 due at 11:59pm on Wednesday, April 15

Monday, April 20 **Artificial Superintelligence**

Kelsey Piper, "[The Case for Taking AI Seriously as a Threat to Humanity](#)"

Nick Bostrom, *Superintelligence* (excerpts)

Homework #9 due at 11:59pm on Wednesday, April 22

Distance Approval Cover Sheet

For Permanent DL/DH Approval | College of Arts and Sciences

Course Number and Title: **PHILOS 7080: Engineering Ethics**

Carmen Use

Please consider using [ASC's distance learning course template](#). For more on use of Carmen: <https://teaching.resources.osu.edu/teaching-topics/carmen-common-sense-best-practices>

A Carmen site will be created for the course, including a syllabus and gradebook at minimum. **YES**

If no: **Enter additional details if you responded no...**

Syllabus

Proposed syllabus uses the ASC distance learning syllabus template, includes boilerplate language where required, as well as a clear description of the technical and academic support services offered, and how learners can obtain them. **YES**

Syllabus is consistent and is easy to understand from the student perspective. **YES**

Syllabus includes a schedule with dates and/or a description of what constitutes the beginning an end of a week or module. **YES**

If there are required synchronous sessions, the syllabus clearly states when they will happen and how to access them. **N/A**

Additional comments (optional):
N/A

Instructor Presence

For more on instructor presence: <https://teaching.resources.osu.edu/teaching-topics/online-instructor-presence>

Students should have opportunities for regular and substantive academic interactions with the course instructor. Some ways to achieve this objective:

- Regular instructor communications with the class via announcements or weekly check-ins
- Instructional content, such as video, audio, or interactive lessons, that is visibly created or mediated by the instructor
- Regular participation in class discussion, such as in Carmen discussions or synchronous sessions
- Regular opportunities for students to receive personal instructor feedback on assignments



Please comment on this dimension of the proposed course (or select/explain methods above):
 At the beginning of each week, the instructor will post a video lecture that was clearly created and recorded by him, and he will also send out an announcement on Carmen reminding the students of the tasks that they need to complete that week. The graders will provide written feedback on homework assignments.

Delivery Well-Suited to DL/DH Environment

Technology questions adapted from the [Quality Matters](#) rubric. For information about Ohio State learning technologies: <https://teaching.resources.osu.edu/toolsets>

The tools used in the course support the learning outcomes and competencies. **YES**

Course tools promote learner engagement and active learning. **YES**

Technologies required in the course are current and readily obtainable. **YES**

Links are provided to privacy policies for all external tools required in the course. **YES**

Additional technology comments:

Enter any additional comments about course technology...

Which components of this course are planned for synchronous delivery and which for asynchronous delivery? (For DH, address what is planned for in-person meetings as well.)

All activities are asynchronous. In a typical week, the lecture is made available on Carmen on Monday and the quiz and homework are both due on Sunday.

If you believe further explanation would be helpful, please comment on how course activities have been adjusted for distance learning:

The DL version of this course simply replaces the in-person version's weekly lecture with a weekly prerecorded lecture that is made available on Carmen. The quizzes and homework assignments are administered and collected on Carmen in the same way that they would be in the in-person version.

Workload Estimation

For more information about calculating online instruction time: [ODEE Credit Hour Estimation](#)

Course credit hours align with estimated average weekly time to complete the course successfully. **YES**

Course includes direct (equivalent of "in-class") and indirect (equivalent of "out-of-class") instruction at a ratio of about 1:2. **YES**

Provide a brief outline of a typical course week, categorizing course activities and estimating the approximate time to complete them or participate:

On Monday, the instructor posts a 1-hour prerecorded lecture, which students can then watch at any time. By the end of the day on Sunday, students must complete the assigned reading, take a multiple-choice quiz on the lecture and reading, and complete a brief homework assignment. The reading, quiz, and homework take 2 hours in total to complete.

In the case of course delivery change requests, the course demonstrates comparable rigor in meeting course learning outcomes. **YES**



Accessibility

For more information or a further conversation, contact the [accessibility coordinator](#) for the College of Arts and Sciences. For tools and training on accessibility: [Digital Accessibility Services](#)

Instructor(s) teaching the course will have taken Digital Accessibility training (starting in 2022) and will ensure all course materials and activities meet requirements for diverse learners, including alternate means of accessing course materials when appropriate. **YES**

Information is provided about the accessibility of all technologies required in the course. All third-party tools (tools without campus-wide license agreements) have their accessibility statements included. **YES**

Description of any anticipated accommodation requests and how they have been/will be addressed. Students have the option to turn on the transcript for all pre-recorded lectures.

Additional comments:

Enter any additional comments about accessibility...

Academic Integrity

For more information: <https://go.osu.edu/teaching-resources-academic-integrity>

The course syllabus includes online-specific policies about academic integrity, including specific parameters for each major assignment: **YES**

Assignments are designed to deter cheating and plagiarism and/or course technologies such as online proctoring or plagiarism check or other strategies are in place to deter cheating: **YES**

Additional comments:

The homework will be checked through TurnItIn.

Frequent, Varied Assignments/Assessments

For more information: <https://teaching.resources.osu.edu/teaching-topics/designing-assessments-student>

Student success in online courses is maximized when there are frequent, varied learning activities. Possible approaches:

- Opportunities for students to receive course information through a variety of different sources, including indirect sources, such as textbooks and lectures, and direct sources, such as scholarly resources and field observation
- Variety of assignment formats to provide students with multiple means of demonstrating learning
- Opportunities for students to apply course knowledge and skills to authentic, real-world tasks in assignments

Comment briefly on the frequency and variety of assignment types and assessment approaches used in this course (or select methods above):

Students will receive scholarly lectures on assigned readings. In addition to lecture, homework prompts will connect course concepts to real-world ethical situations experienced by engineers.



Community Building

For more information: <https://teaching.resources.osu.edu/teaching-topics/student-interaction-online>

Students engage more fully in courses when they have an opportunity to interact with their peers and feel they are part of a community of learners. Possible approaches:

- Opportunities for students to interact academically with classmates through regular class discussion or group assignments
- Opportunities for students to interact socially with classmates, such as through video conference sessions or a course Q&A forum
- Attention is paid to other ways to minimize transactional distance (psychological and communicative gaps between students and their peers, instructor, course content, and institution)

Please comment on this dimension of the proposed course (or select methods above):
Enter comments, 1-3 sentences...

Transparency and Metacognitive Explanations

For more information: <https://teaching.resources.osu.edu/teaching-topics/supporting-student-learning-your>

Students have successful, meaningful experiences when they understand how the components of a course connect together, when they have guidance on how to study, and when they are encouraged to take ownership of their learning. Possible approaches:

- Instructor explanations about the learning goals and overall design or organization of the course
- Context or rationale to explain the purpose and relevance of major tasks and assignments
- Guidance or resources for ancillary skills necessary to complete assignments, such as conducting library research or using technology tools
- Opportunities for students to take ownership or leadership in their learning, such as by choosing topics of interest for an assignment or leading a group discussion or meeting
- Opportunities for students to reflect on their learning process, including their goals, study strategies, and progress
- Opportunities for students to provide feedback on the course

Please comment on this dimension of the proposed course (or select methods above):
In Carmen announcement each week, instructor will explain the function of the quiz and how it differs from the function of the homework assignment.

Commented [SA1]: Anything that you want to say here?

Additional Considerations



Comment on any other aspects of the online delivery not addressed above:

The in-person version of this class already uses Carmen for every aspect of the course except the weekly in-person lecture. The DL version of the class will simply replace the weekly in-person lecture with a weekly prerecorded lecture made available on Carmen.

The course syllabus is clear and contains all required syllabus elements. There seems to be little consideration of student-interaction and community building in the course design (the "community building" section was left blank on this cover sheet).

Syllabus and cover sheet reviewed by Jeremie Smith on 8/16/2021

Additional resources and examples can be found on [ASC's Office of Distance Education](#) website.