

## Term Information

Effective Term Summer 2021  
*Previous Value* Autumn 2018

## 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)?**

Our department wants to regularly offer a DL version of this class

**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	Undergraduate
Course Number/Catalog	1332
Course Title	Ethics in the Professions: Introduction to Engineering Ethics
Transcript Abbreviation	Engineering Ethics
Course Description	An examination of contemporary issues in engineering ethics in the context of major ethical theories.
Semester Credit Hours/Units	Fixed: 3

## 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>	<i>No</i>
Grading Basis	Letter Grade
Repeatable	No
Course Components	Recitation, Lecture
Grade Roster Component	Lecture
Credit Available by Exam	No
Admission Condition Course	No
Off Campus	Never
Campus of Offering	Columbus, Lima, Mansfield, Marion, Newark, Wooster

## Prerequisites and Exclusions

### Prerequisites/Corequisites

Exclusions Not open to students with credit for 1300.  
Electronically Enforced Yes

## Cross-Listings

Cross-Listings

## Subject/CIP Code

Subject/CIP Code 38.0103  
Subsidy Level General Studies Course  
Intended Rank Freshman, Sophomore

## Requirement/Elective Designation

General Education course:  
Culture and Ideas  
The course is an elective (for this or other units) or is a service course for other units

## Course Details

**Course goals or learning objectives/outcomes** • Students evaluate significant cultural phenomena and ideas in order to develop capacities for aesthetic and historical response and judgment; and interpretation and evaluation.

**Content Topic List** • Ethical theories of right and wrong  
• Ethical topics with application to engineering contexts  
• Legal versus moral decision making

**Sought Concurrence** No

## Attachments

- PHILOS 1332 In-Person Syllabus.pdf: syllabus in-person  
*(Syllabus. Owner: Brown,Michelle E.)*
- PHILOS 1332 GE Assessment Plan and Appendix.pdf: Assessment plan  
*(GEC Course Assessment Plan. Owner: Brown,Michelle E.)*
- PHILOS 1332 DL Syllabus.docx: syllabus DL  
*(Syllabus. Owner: Brown,Michelle E.)*
- PHILOS 1332 ASCTech Checklist.docx: ASC checklist  
*(Other Supporting Documentation. Owner: Brown,Michelle E.)*

## Comments

**COURSE CHANGE REQUEST**  
1332 - Status: PENDING

Last Updated: Haddad,Deborah Moore  
11/20/2020

**Workflow Information**

Status	User(s)	Date/Time	Step
Submitted	Brown,Michelle E.	11/20/2020 10:14 AM	Submitted for Approval
Approved	Downing,Lisa J	11/20/2020 10:22 AM	Unit Approval
Approved	Haddad,Deborah Moore	11/20/2020 10:28 AM	College Approval
Pending Approval	Jenkins,Mary Ellen Bigler Hanlin,Deborah Kay Oldroyd,Shelby Quinn Vankeerbergen,Bernadette Chantal	11/20/2020 10:28 AM	ASCCAO Approval

# Philosophy 1332 - Engineering Ethics

(100% Online)

Autumn Semester 2021

## Course Information

- **Course times and location:** This course is online and asynchronous. There are no required scheduled meetings. The course will be organized by weekly modules in Carmen that students may complete on their own schedules and at their own pace.
- **Credit hours:** 3
- **Mode of delivery:** Distance Learning

## Instructor

- **Name:** Kathryn McFarland
- **Email:** mcfarland.309@osu.edu
- **Office location:** Personal Zoom meeting room.
- **Office hours:** Tuesday and Friday 2-3 pm (via Zoom) and by appointment.
- **Preferred means of communication:**
  - My preferred method of communication for questions is **email**.
  - My class-wide communications will be sent through the Announcements tool in CarmenCanvas. Please check your **notification preferences** ([go.osu.edu/canvas-notifications](https://go.osu.edu/canvas-notifications)) to be sure you receive these messages.

## Course Description

Philosophy 1332 introduces students to a range of ethical issues that arise in the engineering profession, at both the individual and institutional level. Students will learn about and practice general moral reasoning, while also examining specific concepts of central importance to engineering ethics and analyzing specific case studies from the profession.

## Learning Outcomes

By the end of this course, the successful student will be able to:



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- Understand basic theories and concepts in philosophical ethics and their application to decision problems that may arise within the engineering profession.
- Understand the ethical importance of key topics in professional ethics, such as conflicts of interest, confidentiality, whistleblowing, risk assessment, and truthfulness and honesty.
- Conceptualize professional engineering not only as a practice in which ethical wrongdoing must be avoided but also as one to promote moral good and wellbeing.
- Identify professional situations and decisions that are morally relevant, and apply moral reasoning to evaluate the right course of action when examining particular case studies.
- Apply ethical concepts and philosophical argumentation in defending a morally correct course of action in situations that could arise in the engineering profession.

## General Education Expected Learning Outcomes

As part of the GE Culture and Ideas category of the General Education curriculum, Philosophy 1332 is designed to prepare students to be able to do 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.
- Students analyze and interpret major forms of human thought, culture, and expression.
- Students evaluate how ideas influence the character of human beliefs, the perception of reality, and the norms which guide human behavior.

In Philosophy 1332 students will critically analyze “the norms which guide human behavior” and the ideas beneath them with respect, especially, to a variety of case studies in engineering ethics (both real and fictional). Moreover, students will develop the capacity to interpret and evaluate actions and behavior within the framework of philosophical ethics.

## How This Online Course Works

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

**Pace of online activities:** This course is divided into **weekly modules** that are released one week ahead of time. Students are expected to keep pace with weekly deadlines but may schedule their efforts freely within that time frame.



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**Credit hours and work expectations:** This is a 3 credit-hour course. According to [Ohio State bylaws on instruction](https://go.osu.edu/credithours) (go.osu.edu/credithours), students should expect around 3 hours per week of time spent on direct instruction (instructor content and Carmen activities, for example) in addition to 6 hours of homework (reading and assignment preparation, for example) to receive a grade of C average.

**Participation requirements:** Research shows regular participation is one of the highest predictors of success. With that in mind, I have the following expectations for participation:

- **Completing comprehension-check quizzes: once per week**  
Short multiple-choice or T/F quizzes will be administered each week on Carmen to help guide your focus to key material in each week's readings and lectures.
- **Participating in discussion forums: two or more times per week**  
As part of your participation, each week you can expect to post at least twice as part of our substantive class discussion on the week's topics.
- **Completing reflection exercises on the week's topics: once per week**  
Each week you can expect one brief open-ended question inviting reflection on or application of a portion of the week's material.

## Course Materials, Fees and Technologies

### Required Materials and Equipment:

- **Readings:** all readings will be made available free of charge in Carmen.
- **Computer:** current Mac (MacOS) or PC (Windows 10) with high-speed internet connection
- **Microphone:** built-in laptop or tablet mic or external microphone
- **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](https://go.osu.edu/student-tech-access).

**CarmenCanvas Access:** You will need to use [BuckeyePass](https://buckeyepass.osu.edu) (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](https://go.osu.edu/add-device) (go.osu.edu/add-device) help article for step-by-step instructions.
- 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](http://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.

### Technology Skills Needed for This Course:

- Basic computer and web-browsing skills
- **Navigating CarmenCanvas** ([go.osu.edu/canvasstudent](http://go.osu.edu/canvasstudent))
- **CarmenZoom virtual meetings** ([go.osu.edu/zoom-meetings](http://go.osu.edu/zoom-meetings))

**Technology Support:** For help with your password, university email, CarmenCanvas, or any other technology issues, questions or requests, contact the IT Service Desk, which offers 24-hour support, seven days a week.

- **Self Service and Chat:** [go.osu.edu/it](http://go.osu.edu/it)
- **Phone:** 614-688-4357 (HELP)
- **Email:** [servicedesk@osu.edu](mailto:servicedesk@osu.edu)

## Grading and Faculty Response

### How Your Grade is Calculated

Assignment Category	Percentage of Course Grade
1. Discussion board posts (2 per week)	10%
2. Comprehension check quizzes (1 per week)	10%
3. Individual reflection exercises (1 per week)	10%
4. Midterms	40% (20% each)
5. "Take Home" Final Exam	30%
<b>Total</b>	<b>100%</b>



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## Descriptions of Major Course Assignments

Refer to Carmen for detailed descriptions and due dates for particular assignments.

### 1. Discussion Board Posts

**Description:** Each week, students will receive a grade of 0, 1 or 2 (maximum) for discussion board participation, depending on whether they have made 0, 1 or 2 relevant and substantive posts to contribute to that week's discussion (example of non-substantive posts include "I agree with previous commenters" or "I learned about confidentiality from this week's lectures"). The discussion will be open-ended, as long as comments remain relevant and topic to that week's course material. However, I will provide sample questions and issues to help guide discussion.

**Academic integrity and collaboration:** All of your written assignments for this course should be your own original work. This includes discussion posts. You are encouraged (and expected) to consult course materials when contributing to discussion forums. Lectures, lecture slides, and assigned readings do not need to be formally cited. When relevant and appropriate, you are encouraged to refer to outside sources (e.g. if introducing a new example or case study relevant to a week's topics). If referring to outside sources, you must provide a link/URL (if an online source) and otherwise provide other identifying information such as the title and author.

**Late Assignments:** Students are encouraged to continue discussion in online forums beyond the two required posts and after the posted deadlines. However, due to the collaborative nature of the discussion assignment, late posts will **not** receive credit toward the assignment grade.

### 2. Comprehension-Check Quizzes

**Description:** As part of each week's module, students must complete a 10-question quiz consisting of multiple choice and/or true/false questions (excepting the last week of the semester and the weeks in which midterms are given). Students will have two attempts to complete each quiz, with the highest score being graded. Students will be shown questions missed and correct answers only after the final attempt. Quizzes are graded automatically.

**Academic integrity and collaboration:** You **may** refer to any course materials while completing the comprehension-check quizzes. You should **not** consult with classmates or any other individuals when completing the quizzes, and you will be required to check a box confirming that you did not do so before submitting your quiz answers.





**Late Assignments:** Quizzes will be available for one week on Carmen. After this time, they will close and cannot be completed for credit. Students unable to access or complete a quiz during a certain week should contact me to arrange accommodations on a case by case basis.

### 3. Individual Reflection Exercises

**Description:** As part of each week's module, students must answer a short (1-2 paragraph) open-ended question or prompt (excepting the last week of the semester and the weeks in which midterms are given). In most cases, this will involve students' applying new course material to topics or cases that interest them or can relate to personally. Student responses will be submitted on Carmen as either text entry or file upload (pdf or doc). Each submission will be graded out of 5 points. Thoughtful answers that correctly apply course material will receive full credit. Students will receive 4 points for answers that display minor errors when invoking ideas or concepts from course materials, 3 points for answers that display greater and errors, and 2 points for answers that show some thoughtful engagement but fail to address the prompt.

**Academic integrity and collaboration:** You are allowed to use any course materials **and** to talk with fellow students or other individuals. However, your work must be your own, and Turnitin will be used to review each submission for plagiarism. Lectures and readings from the Carmen module do not need to be formally cited, but cite the author if using a direct quote or paraphrase. If you refer to outside sources, you must minimally cite an URL (if an online source) or other identifying information such as author, title, publication venue, and date of publication.

**Late Assignments:** Submission forms for reflection exercises will be available for one week on Carmen. After this time, assignments will not be accepted for credit. Students unable to fulfill this requirement should contact me to arrange accommodations on a case by case basis.

### 4. Midterms (2)

**Description:** Two midterm exams will be given in this course, via Carmen. The exams will consist of 20 multiple choice and true/false in addition to 5-6 free response questions in which students will explain and illustrate ethical concepts, theories, and arguments covered in lectures and readings. Each of the midterm exams will be open on Carmen for two full days, and each exam will have a 90-minute completion window. If you need more time due to a disability, you should contact SLDS (see below) to request appropriate accommodations, which will then be provided.

**Academic integrity and collaboration:** You are **not** permitted to use notes or any course materials while taking the midterms, nor are you permitted to "phone a friend" or consult with other students during the exams. Turnitin will be used to check for plagiarism in the free



response portion of the exams, and prior to submitting an exam for grading students will be required to check a statement confirming that they have worked alone on the exam.

**Late Assignments:** If you are unable to complete the exams within the scheduled time frame, you should contact me (mcfarland.309@osu.edu) to arrange alternative accommodations. Make-up exams will be permitted only in the case of serious and unforeseeable extenuating circumstances (e.g. personal injury or illness or family emergency).

## 5. "Take-Home" Final Exam

**Description:** The final exam will consist of approximately 10 free-response questions, in which students are asked to describe and illustrate major theories and concepts discussed throughout the course. Students will have one week to complete the assignment from the time it is posted. (No strict time constraints are given on this assignment in view of the fact that Philosophy 1332 students often differ in their prior familiarity with writing, especially philosophical writing, and their comfort with the English language.)

**Academic integrity and collaboration:** You are allowed to consult any course materials in preparing your responses for the discursive final exam. However, your work must be your own. You should **not** confer with classmates regarding the assignment or ask any other person to proofread your answers. You also must cite any sources used, and use quotation marks whenever quoting directly from another's work (which is discouraged). Note that you will need to describe concepts and theories in your own words in order to receive full credit for answers. Turnitin will be used to check exams for plagiarism.

**Late Assignments:** No late submissions of the final exam will be accepted. Contact me ASAP if you have extenuating circumstances that prohibit you from completing or submitting the final exam by the published due date.

## Instructor Feedback and Response Time

- **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](https://go.osu.edu/canvas-notifications)) to ensure you receive these messages.
- **Discussion board:** I will check and reply to messages in the pinned "Course Questions" discussion board once mid-week and once at the end of the week.



- **Grading and feedback:** I will grade all discussion board posts and provide feedback and grades on all individual reflection exercises within seven days. I will grade and provide feedback on midterms within fourteen days.

### Grading Scale

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

## Other Course Policies

### Discussion and Communication Guidelines

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

- **Writing style:** While there is no need to participate in class discussions as if you were writing a research paper, you should remember to write using 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. See assignment-specific details above.
- **Backing up your work:** Consider composing your academic posts in a word processor, where you can save your work, and then copying into the Carmen discussion.

### Ohio State's Academic Integrity Policy

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 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



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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.

*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](http://go.osu.edu/coam) (go.osu.edu/coam)
- [Ten Suggestions for Preserving Academic Integrity](http://go.osu.edu/ten-suggestions) (go.osu.edu/ten-suggestions)
- [Eight Cardinal Rules of Academic Integrity](http://go.osu.edu/cardinal-rules) (go.osu.edu/cardinal-rules)

## **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:



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1. Online reporting form at [equity.osu.edu](http://equity.osu.edu),
2. Call 614-247-5838 or TTY 614-688-8605,
3. Or email [equity@osu.edu](mailto: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.

## Your Mental Health

As a student you may experience a range of issues that can cause barriers to learning, 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 mental health resources](http://go.osu.edu/ccsondemand) ([go.osu.edu/ccsondemand](http://go.osu.edu/ccsondemand)) are available. You can reach an on-call counselor when CCS is closed at 614-292-5766. 24-hour emergency help is available through the [National Suicide Prevention Lifeline website](http://suicidepreventionlifeline.org) ([suicidepreventionlifeline.org](http://suicidepreventionlifeline.org)) or by calling 1-800-273-8255(TALK). [The Ohio State Wellness app](http://go.osu.edu/wellnessapp) ([go.osu.edu/wellnessapp](http://go.osu.edu/wellnessapp)) is also a great resource.

## Student Academic Services

Student academic services offered on the OSU main campus:  
<http://advising.osu.edu/welcome.shtml>.

## Student Support Services

Student support services offered on the OSU main campus: <http://ssc.osu.edu>.

## Accessibility Accommodations for Students with Disabilities



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## 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 (SLDS)**. 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](http://slds.osu.edu)
- Email: [slds@osu.edu](mailto: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 as early as possible.

- **CarmenCanvas accessibility** ([go.osu.edu/canvas-accessibility](http://go.osu.edu/canvas-accessibility))
- **CarmenZoom accessibility** ([go.osu.edu/zoom-accessibility](http://go.osu.edu/zoom-accessibility))

## Course Schedule

Refer to the CarmenCanvas course for recorded lectures, readings, assignments and due dates.

Week	Assignments	Topics
<b>1</b> Aug 24- Aug 27	<ul style="list-style-type: none"> <li>• Discussion board introduction posts</li> <li>• Syllabus quiz</li> </ul>	<p>Introduction to Ethics and Engineering Ethics</p> <p>Readings: None; all introductory information will be given in lecture.</p>



<b>2</b> Aug 30- Sep 3	<ul style="list-style-type: none"> <li>• Discussion board posts</li> <li>• Comprehension quiz</li> <li>• Reflection exercise</li> </ul>	<b>Professions and Codes of Ethics</b> Readings: Michael Davis, "Thinking Like an Engineer" Robert McGinn "Professional Engineering Society Codes of Ethics"
<b>3</b> Sep 7- Sep 10	<ul style="list-style-type: none"> <li>• Discussion board posts</li> <li>• Comprehension quiz</li> <li>• Reflection exercise</li> </ul>	<b>Consequentialist Ethics</b> Readings: Russ Shafer-Landau, "Consequentialism: Its Nature and Attractions"; Mark Dowie "Pinto Madness" (case study)
<b>4</b> Sep 13- Sep 17	<ul style="list-style-type: none"> <li>• Discussion board posts</li> <li>• Comprehension quiz</li> <li>• Reflection exercise</li> </ul>	<b>Deontological Ethics</b> Readings: Russ Shafer-Landau, "The Kantian Perspective: Autonomy Respect" and "The Kantian Perspective: Fairness and Justice" Charles Landers case study
<b>5</b> Sep 20- Sep 24	<ul style="list-style-type: none"> <li>• Discussion board posts</li> <li>• Comprehension quiz</li> <li>• Reflection exercise</li> </ul>	<b>Virtue Ethics and Aspirational Ethics</b> Readings: Charles Harris "From Preventive Ethics to Aspirational Ethics"; Michael Pritchard, "Focusing on the Exemplary" case studies
<b>6</b> Sep 27- Oct 1	<ul style="list-style-type: none"> <li>• Midterm exam 1</li> </ul>	<b>Ethics and Psychology of Risk Assessment + <b>Midterm 1</b></b> Reading: Excerpts from Jonathan Baron, <i>Thinking and Deciding</i>
<b>7</b> Oct 4- Oct 8	<ul style="list-style-type: none"> <li>• Discussion board posts</li> <li>• Comprehension quiz</li> <li>• Reflection exercise</li> </ul>	<b>Types and Causes of Accidents</b> Readings: Excerpts from Diane Vaughan, <i>The Challenger Launch Decision</i> and Henry Petroski, <i>To Engineer is Human</i> Robert McGinn, "The Union Carbide Pesticide Plant in Bhopal"
<b>8</b> Oct 11- Oct 13	<ul style="list-style-type: none"> <li>• Discussion board posts</li> <li>• Comprehension quiz</li> <li>• Reflection exercise</li> </ul>	<b>Honesty and Deception in the Engineering Profession</b> Reading: Charles Harris, Michael Pritchard and Michael Rabin, "Trust and Reliability"
<b>9</b> Oct 18- Oct 22	<ul style="list-style-type: none"> <li>• Discussion board posts</li> <li>• Comprehension quiz</li> <li>• Reflection exercise</li> </ul>	<b>Conflicts of Interest and Bribery</b> Readings: Paula Wells, Hardy Jones and Michael Davis, "Conflicts of Interest in Engineering"
<b>10</b> Oct 25- Oct 29	<ul style="list-style-type: none"> <li>• Discussion board posts</li> <li>• Comprehension quiz</li> <li>• Reflection exercise</li> </ul>	<b>Confidentiality and Intellectual Property</b> Readings: Sissela Bok, "Trade and Corporate Secrecy" and "Lies Protecting Peers and Clients"
<b>11</b> Nov 1- Nov 5	<ul style="list-style-type: none"> <li>• Discussion board posts</li> <li>• Comprehension quiz</li> <li>• Reflection exercise</li> </ul>	<b>Ethical Theories of Whistleblowing</b> Readings: Michael Davis, "Two Paradoxes of Whistleblowing" Mike Martin, "Whistleblowing"



<b>12</b> Nov 8- Nov 12	<ul style="list-style-type: none"> <li>• Midterm exam 2</li> </ul>	Harassment and Discrimination in Engineering + <b>Midterm 2</b> Reading: Danielle Boykin, "Bias in the Engineering Workplace"
<b>13</b> Nov 15- Nov 19	<ul style="list-style-type: none"> <li>• Discussion board posts</li> <li>• Comprehension quiz</li> <li>• Reflection exercise</li> </ul>	Design Ethics and Value-Sensitive Design Readings: Langdon Winner "Do Artifacts Have Politics?" Betya Friedman, Peter Kahn and Alan Borning, "Value Sensitive Design and Information Systems"
<b>14</b> Nov 22- Nov 23	<ul style="list-style-type: none"> <li>• Discussion board posts</li> </ul>	Critiques of Value-Sensitive Design Reading: Noemi Manders-Huits, "What Values in Design? The Challenge of Incorporating Moral Values into Design"
<b>15</b> Nov 29- Dec 3	<ul style="list-style-type: none"> <li>• Discussion board posts</li> <li>• Comprehension quiz</li> <li>• Reflection exercise</li> </ul>	Environmental Ethics and Sustainable Design Reading: Michiel Brumsen, "Sustainability, Ethics, and Technology"
<b>16</b> Dec 6- Dec 8	<ul style="list-style-type: none"> <li>• Take-home final (due Dec 15)</li> </ul>	Humanitarian Engineering + <b>Take Home Final Posted</b> Video: Bernard Amadei, "Technology with Soul"





# Philosophy 1332: Engineering Ethics

3 Units

## Spring Semester 2020

Tue/Thu, 5:30 pm - 6:50 pm

Journalism Building 375

## Dr. Kate McFarland

mcfarland.309@osu.edu

University Hall 372

Office Hours: Tue/Thu 4-5 pm and by appointment



## Course Description

Philosophy 1332 introduces students to a range of ethical issues that arise in the engineering profession, at the individual, institutional, and societal scales. Students will study and practice general ethical reasoning, while also examining specific concepts of central importance to engineering ethics and analyzing specific case studies from the profession.

## Reading Material

No textbook is required for this course. All readings will be available on Carmen.

## Course Requirements and Assessment

### Homework Activities (20%)

Homework activities will be due on Carmen **before 5:30 pm** on the days of most class meetings.

These short out-of-class assignments might consist of questions on assigned readings, short web-based research assignments related to a class topic, reflections on personal experiences, or the construction or analysis of an ethical argument relevant to the upcoming class.

The lowest 3 homework grades will be dropped.

### In-Class Group Discussions (20%)

Small group discussions will take place during most class meetings. Often these will build on the individual homework activities to encourage students to share their thoughts and experiences in order to deepen their critical engagement with ethical issues presented in readings and lectures.

Groups of 5 will be randomly assigned on Carmen and rotated once during the semester.

The lowest 3 group discussion grades will be dropped.

*If you plan to miss class, you should plan to treat the missed activity as one of your 3 dropped grades. If you need to miss more than 3 classes due to extenuating circumstances (e.g. serious illness, prolonged family emergency, academic or professional travel, etc.), contact me to arrange for make-up assignment(s).*

### **Midterm Exams (15% each, 30% total)**

This class requires two in-class midterm exams, on **Tuesday, February 18** and **Thursday, April 2**.

*If you have an unavoidable conflict on the date of an exam, you must contact me ASAP to make alternative arrangements. Make-up exams will be given only in the case of unforeseen extenuating circumstances, such as serious illness. Both exams must be completed in order to pass the course.*

### **Group Project and Presentation (15%)**

Students will work in 8 groups of 5 to prepare a presentation on either (a) a specific “real world” engineering ethics case study or (b) the ethical ramifications of a technology of their choice. The presentation will involve the identification of ethical issues, construction and analysis of ethical arguments, and assessment of the correct course of action for an engineer in a given situation.

A detailed description and rubric will be posted on Carmen at a later date.

Presentations will take place during class on the dates of April 7, 9, 14, and 16. In addition to the in-class presentation, groups will be required to have a topic approved by Friday, March 5, and to submit an outline and reference list at least one day prior to the presentation.

### **Final Written Assignment (15%)**

A “take home” written final exam will be due on Carmen by **Friday, April 24** at 11:59 pm.

This assignment will consist of open-ended questions inviting students to apply themes and concepts from Phil 1332 to situations that they might encounter in their own careers.

### **Grading Scale (Standard Ohio State grading scheme)**

Grade	Percent	Grade	Percent	Grade	Percent	Grade	Percent
A	93-100	B	83-86.9	C	73-76.9	D	60-66.9
A-	90-92.9	B-	80-82.9	C-	70-72.9	E	0-59.9

B+ 87-89.9      C+ 77-79.9      D+ 67-69.9

## Approximate Schedule of Topics

Exact dates of topics are subject to change depending on the progress of course (with exam coverage adjusted accordingly). Precise reading assignments will be announced at later dates, and additional required or supplemental content may be added. All will be available on Carmen.

### Week 1

Jan 7            Introduction to Engineering Ethics

Jan 9            Autonomous Vehicles as Case Study in Moral Dilemmas

Supplemental Reading:

“The social dilemma of autonomous vehicles” (Bonnenfon, Shariff, and Rahwan)

### Week 2

Jan 14           The Profession of Engineering and Code of Ethics

Readings:

Sections 2-3 in “Thinking Like an Engineer: The Place of a Code of Ethics in the Practice of a Profession” (Michael Davis)

“Professional Engineering Society Codes of Ethics” (Robert McGinn)

Supplemental Reading (Challenger Case Study):

*Truth, Lies, and O-rings* excerpts (Allan McDonald)

Jan 16           Consequentialism

“Consequentialism: Its Nature and Attractions” (Russ Shafer-Landau, *The Fundamentals of Ethics*, ch. 9)

“Consequentialism: Its Difficulties” (Shafer-Landau, ch. 10)

### Week 3

Jan 21           Deontology

“The Kantian Perspective: Fairness and Justice” (Shafer-Landau, ch. 11)

“The Kantian Perspective: Autonomy and Respect” (Shafer-Landau, ch. 12)

Jan 23           Virtue Ethics and Aspirational Ethics

“Virtue Ethics” (James Rachels, *The Elements of Moral Philosophy*)  
“Engineering Ethics: From Preventive Ethics to Aspirational Ethics” (Charles Harris)  
Case studies from “Professional Responsibility: Focusing on the Exemplary”  
(Michael Pritchard)

#### **Week 4**

Jan 28 Honesty and Deception  
  
Volkswagen and Paradyne case studies

Jan 30 Honesty and Deception, cont’d  
  
“Is Business Bluffing Ethical?” (Albert Carr)

#### **Week 5**

Feb 4 Conflicts of Interest  
  
“Conflicts of Interest in Engineering” (Wells, Jones, and Davis)  
Hydrolevel case study

Feb 6 Gifts, Bribes, and Contingency Fees  
  
“Bribery: The Concept” (Pritchard)  
“Bribery” (Noonan)

#### **Week 6**

Feb 11 Confidentiality  
  
“Trade and Corporate Secrecy” (Sissela Bok, *Secrets*)  
“Trade Secrets: What Price Loyalty?” (Michael Baram)

Feb 13 Confidentiality, cont’d; Review

#### **Week 7**

Feb 18 EXAM 1

Feb 20 Risk Assessment and Valuing Human Lives

“In Defense of GM” (Eric Posner)  
“Pinto Madness” (Mark Dowie)

### **Week 8**

Feb 25 Accidents and Normalizing Deviance

Summary of Diane Vaughan, *The Challenger Launch Decision*  
“Pinto Fires and Personal Ethics” (Dennis Gioia)  
“Special Report: Why the BP Oil Rig Blowout Happened” (*Popular Mechanics*)  
“Accidents Waiting to Happen” (from Henry Petroski, *To Engineer Is Human*)

Feb 27 Accidents in the International Perspective

“The Union Carbide Pesticide Plant in Bhopal” (McGinn)  
“International Ethics and Failures” (Norbert Delatte)

### **Week 9**

Mar 3 Whistleblowing

“Whistleblowing: Professionalism, Personal Life, and Shared Responsibility for Safety in Engineering” (Mike Martin)  
“Some Paradoxes of Whistleblowing” (Michael Davis)  
BART and Michael DeKort case studies

Mar 5 Designing for Safety

“Design Problems and Ethics” (Wade Robison)  
“What Really Brought Down the Boeing 737 Max?” (William Langewiesche)

### **Spring Break**

### **Week 10**

Mar 17 Value-Sensitive Design

“Value Sensitive Design and Information Systems” (Friedman, Kahn, and Borning)  
“What Values in Design? The Challenge of Incorporating Moral Values into Design” (Noëmi Manders-Huits)

Mar 19 Appropriate Technology and Humanitarian Engineering

Excerpts from *Small Is Beautiful* (E.F. Schumacher)  
“Appropriate Technology for Socioeconomic Development in Third World Countries” (Anthony Akubue)  
Case studies from “Some Examples of Appropriate Technology Equipment” (Peter Dunn)

**Week 11**

Mar 24 Introduction to Environmental Ethics

Reading TBD or lecture notes

Mar 26 Sustainable Design and Life Cycle Assessment

“Sustainability, Ethics, and Technology” (Michiel Brumsen)  
Cradle to Cradle case study

**Week 12**

Mar 31 Engineering and the Environment, cont’d; Review

Apr 2 EXAM 2

**Week 13**

Apr 7 Presentations 1 and 2

Apr 9 Presentations 3 and 4

**Week 14**

Apr 14 Presentations 5 and 6

Apr 16 Presentations 7 and 8

**Final Exam Week**

Apr 24 Final written assignment due on Carmen

## **Satisfaction of GE Requirements**

Philosophy 1332 satisfies the GE category Culture and Ideas. According to the College of Arts and Sciences, courses satisfying this GE requirement have the following goals:

Students evaluate significant cultural phenomena and ideas in order to develop capacities for aesthetic and historical response and judgment; and interpretation and evaluation.

And the following expected learning outcomes:

1. Students analyze and interpret major forms of human thought, culture, and expression.
2. Students evaluate how ideas influence the character of human beliefs, the perception of reality, and the norms which guide human behavior.

In Philosophy 1332, students will critically analyze “the norms which guide human behavior” and the ideas beneath them with respect, especially, to a variety of case studies in engineering ethics (both real and fictional). Moreover, students will develop the capacity to interpret and evaluate actions and behavior within the framework of philosophical ethics.

## **Academic Misconduct Statement**

The NSPE Code of Ethics states that “engineers shall be guided in all their relations by the highest standards of honesty and integrity” (§III.1). Correspondingly, plagiarism and other forms of cheating and academic misconduct will not be tolerated in Phil 1332.

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 alleged academic misconduct to the committee (Faculty Rule 3335-5-487).

For additional information, see the Code of Student Conduct <http://studentlife.osu.edu/csc/>.

## **Statement on Sexual Misconduct**

“[Members shall] never tolerate harassment.” - AIChE Code of Ethics, §10

Title IX makes it clear that violence and harassment based on sex and gender are Civil Rights offenses subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories (e.g., race). If you or someone you know has been sexually harassed or assaulted, you may find the appropriate resources at <http://titleix.osu.edu> or by contacting the Ohio State Title IX Coordinator, Kellie Brennan, at [titleix@osu.edu](mailto:titleix@osu.edu)

## **Statement on Diversity**

“[We agree] to treat fairly all persons and to not engage in acts of discrimination based on race, religion, gender, disability, age, national origin, sexual orientation, gender identity, or gender expression.” - IEEE Code of Ethics §8

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.

## **Disability Statement**

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](mailto:slds@osu.edu); 614-292-3307;  
[slds.osu.edu](http://slds.osu.edu); 098 Baker Hall, 113 W. 12th Avenue.

## **Mental Health Statement**



As a student you may experience a range of issues that can cause barriers to learning, 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. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing. If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life's Counseling and Consultation Service (CCS) by visiting [ccs.osu.edu](http://ccs.osu.edu) or calling 614-292-5766. CCS is located on the 4th Floor of the Younkin Success Center and 10th Floor of Lincoln Tower. 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 Suicide Prevention Hotline at 1-800-273-TALK or at [suicidepreventionlifeline.org](http://suicidepreventionlifeline.org).

Complete the following table to show how the faculty will assess the two expected learning outcomes. Then, in an appendix, provide one or more specific example(s) for each assessment method you will use.

<b>GE Expected Learning Outcomes</b>	<b>Methods of Assessment</b> <i>*Direct methods are required. Additional indirect methods are encouraged.</i>	<b>Level of student achievement expected for the GE ELO.</b> <i>(for example, define percentage of students achieving a specified level on a scoring rubric)</i>	<b>What is the process that will be used to review the data and potentially change the course to improve student learning of GE ELOs?</b>
<u><b>ELO 1</b></u> Students analyze and interpret major forms of human thought, culture, and expression.	<b>Direct:</b> pre/post test or final exam question evaluation  <b>Indirect:</b> student survey asking whether course achieved ELO1 for students	<b>Direct:</b> expect "excellent" or "good" from 80% or more of students.  <b>Indirect:</b> expect 85% or more "strongly agree" or "somewhat agree"	The instructor will meet with the chair of the assessment committee in the Department of Philosophy to review the assessment data and discuss the course. This will happen annually for the first 2 years, and then less frequently, in line with other GE assessments. Where problems appear, issues will be brought to the chair and faculty of Philosophy.
<u><b>ELO 2</b></u> Students evaluate how ideas influence the character of human beliefs, the perception of reality, and the norms which guide human behavior.	<b>Direct:</b> pre/post test or final exam question evaluation  <b>Indirect:</b> student survey asking whether course achieved ELO2 for students	<b>Direct:</b> expect "excellent" or "good" from 80% or more of students.  <b>Indirect:</b> expect 85% or more "strongly agree" or "somewhat agree"	

**\*Direct Methods** assess student performance related to the expected learning outcomes. Examples of direct assessments are course-embedded questions; pre/post test; standardized exams; portfolio evaluation; videotape/audiotape of performance; rubric-based evaluation of student work.

**\*Indirect Methods** assess opinions or thoughts about student knowledge, skills, attitudes, learning experiences, and perceptions. Examples of indirect measures are student surveys about instruction; focus groups; student self-evaluations.

After the second offering of the course, please submit an initial report summarizing the GE assessment results following the format of the "Assessment Report Requirements" in Appendix 11.

## APPENDIX TO ASSESSMENT RUBRIC FOR PROPOSED PHIL 1332

Two examples of direct measures:

- 1. Students will be given a pre-/post test to assess their improvement with respect to ELO 1 and ELO 2. Student answers will be evaluated on a scale of Excellent-Good-Satisfactory-Poor. Example questions include:**
  - a. *ELO 1 example question:* What is an example of theory or concept from philosophical ethics that can be applied in the context of the engineering profession? Describe with respect to a specific example.
  - b. *ELO 2 example question:* How might broader changes in society, culture, and/or technology influence the types of ethical issues engineers need to consider in their work? Give a specific example.
  
- 2. Questions from the final exam will be used to assess achievement of ELO 1 and ELO 2.** These questions will be assessed on a scale of Excellent-Good-Satisfactory-Poor.
  - a. *ELO 1 example question:* Choose one case study discussed in lecture, and explain how utilitarianism and Kantian ethics would differ in their approaches to evaluating whether the engineer in the case acted morally.
  - b. *ELO 2 example question:* State two examples of how engineering codes of ethics have been modified over time. What changes in professional norms and/or societal norms might have contributed to these changes?

One example of indirect measure:

**I. Students will be given a survey at the end of the semester asking them to evaluate whether they believe the course helped them to achieve the ELOs for the course.**

They will be given the options of: Strongly Agree-Somewhat Agree-Neutral-Somewhat Disagree-Strongly Disagree.

Thus, for example:

1. This course helped me analyze and interpret major forms of human thought, culture, and expression. (ELO 1)

Strongly Agree-Somewhat Agree-Neutral-Somewhat Disagree-Strongly Disagree  
(circle one)

2. This course helped me to evaluate how ideas influence the character of human beliefs, the perception of reality, and the norms which guide human behavior.  
(ELO2)

Strongly Agree-Somewhat Agree-Neutral-Somewhat Disagree-Strongly Disagree  
(circle one)

## Arts and Sciences Distance Learning Course Component Technical Review Checklist

**Course: Philosophy 1332**

**Instructor: Kathryn McFarland**

**Summary: Engineering Ethics**

Standard - Course Technology	Yes	Yes with Revisions	No	Feedback/ Recomm.
6.1 The tools used in the course support the learning objectives and competencies.	X			<ul style="list-style-type: none"> <li>• Office 365</li> <li>• Carmen</li> </ul>
6.2 Course tools promote learner engagement and active learning.	X			<ul style="list-style-type: none"> <li>• CarmenZoom</li> <li>• Asynchronous lectures</li> <li>• Carmen Discussion Board posts.</li> </ul>
6.3 Technologies required in the course are readily obtainable.	X			All tools are available via OSU site license free of charge.
6.4 The course technologies are current.	X			All are updated regularly.
6.5 Links are provided to privacy policies for all external tools required in the course.	X			No external tools are used.
Standard - Learner Support				
7.1 The course instructions articulate or link to a clear description of the technical support offered and how to access it.	X			Links to 8HELP are provided
7.2 Course instructions articulate or link to the institution's accessibility policies and services.	X			a
7.3 Course instructions articulate or link to an explanation of how the institution's academic support services and resources can help learners succeed in the course and how learners can obtain them.		X		Add statement b
7.4 Course instructions articulate or link to an explanation of how the institution's student services and resources can help learners succeed and how learners can obtain them.		X		Add statement c
Standard – Accessibility and Usability				
8.1 Course navigation facilitates ease of use.	X			Recommend using the Carmen Distance Learning "Master Course" template developed by ODEE and available in the Canvas Commons to provide student-users with a consistent user experience in terms of navigation and access to course content.
8.2 Information is provided about the accessibility of all technologies required in the course.	X			No 3 <sup>rd</sup> party tools are used.
8.3 The course provides alternative means of access to course materials in formats that meet the needs of diverse learners.	X			Instructions are provided to obtain materials in another format.
8.4 The course design facilitates readability	X			
8.5 Course multimedia facilitate ease of use.	X			All assignments and activities that use the Carmen LMS with embedded multimedia facilitates ease of use. All other multimedia resources facilitate ease of use by being available through a standard web browser

## Reviewer Information

- Date reviewed: 11/6/20
- Reviewed by: Ian Anderson

## Notes: This looks good!

<sup>a</sup>The following statement about disability services (recommended 16 point font):  
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](mailto:slds@osu.edu); [slds.osu.edu](http://slds.osu.edu).

<sup>b</sup>Add to the syllabus this link with an overview and contact information for the student academic services offered on the OSU main campus.

<http://advising.osu.edu/welcome.shtml>

<sup>c</sup>Add to the syllabus this link with an overview and contact information for student services offered on the OSU main campus. <http://ssc.osu.edu>. Also, consider including this link in the “Other Course Policies” section of the syllabus.