Fall 2024

PHIL 334-451-459-461: Engineering Ethics

Daniel Estrada

Syllabus

Phil 334: Engineering Ethics

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Zoom Meeting Link
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Class Discord Server: discord.gg/NxFvdH7

Fall 2024 Class Meetings:

PHIL 334-451	**ONLINE ONLY**
PHIL 334-459	**ONLINE ONLY**
PHIL 334-461	**ONLINE ONLY**

Course Description: In this course we'll examine the ethical dimensions of professional engineering. What ethical challenges might engineers face as professionals and as members of society? What considerations should inform our ethical choices? What obligations constrain these choices? How do engineering projects reflect the values and biases of the broader contexts in which they are developed? This course will introduce several practical and theoretical resources for thinking through the ethical challenges of engineering. Special emphasis is given to issues of integrity, whistleblowing, and automation. We'll apply ethical concepts and theories to a variety of real world cases in order to understand how ethical conflicts arise, how they might be resolved, and our role as professionals in the process.

All assignments, discussions, and grading will take place on Canvas (canvas.njit.edu). Students will participate in group discussions and activities on weekly lesson material, and will prepare short presentations on the material periodically. Students will conduct an extended research project where they investigate a historical case of their choosing pertinent to engineering ethics, and prepare a presentation on their findings to the class. Students will also meet for a regular group activity and lesson review. Detailed course information, including grading rubrics and late policies, can be found in the syllabus below.

Prerequisites: HUM 102 and one from among Hum 211, Hum 212, Hist 213 or Hist 214 or their equivalents, all with a grade of C or better.

Learning Outcomes:

By the end of the course, students will be able to:

- Identify ethical issues
- Describe different ethical decision-making approaches
- Analyze engineering ethics cases
- Apply different ethical decision-making approaches to engineering ethics cases
- Recognize the ethical responsibilities of engineers
- Evaluate the broader societal and environmental impacts of engineering
- Develop and defend positions about issues in engineering ethics

Main Text: Mike. W. Martin and Roland Schinzinger, *Ethics in Engineering*, **fourth edition** (McGraw-Hill, 2005). Available in the NJIT Bookstore and on Amazon. Thanks to your NJIT librarians, most core readings from this text are available digitally here. You will not need to purchase this text to complete the assignments, but you may find the additional material in the textbook useful. All other materials will be made available on Canvas.

Quick overview of the course:

- **Lesson Plan:**
    - Lesson 1: **Introduction to Engineering Ethics**
    - Unit 1: **Ethical Perspectives** Lessons 2-5
    - Unit 2: **Case Studies** Lessons 6-9
    - Unit 3: **Independent Research Project** Lessons 10 & 11
    - Unit 4: **AI Ethics** Lessons 12-14
    - Lesson 15: **Course Reflections**
- The course consists of **three subject units (Units 1, 2, and 4) and one independent research project (Unit 3).**
    - Lesson 1 and Lesson 15 are required assignments to introduce and wrap up the course. Don't skip these lessons!
    - Students are assigned unique **groups of 5-6 students** for units 1, 2, & 4.
- For each lesson, the instructor has a prepared **~1 hr lecture with slides and discussion material**. Students should watch the full lecture and review the discussion material on Canvas for every lesson.
- Each subject unit requires students individually complete the following assignments:
    - **Lesson Presentations:** One 10-15 minute recorded presentation with slides covering the material from one lesson in the unit. **Lesson Presentations must be completed individually.**
    - **Replies:** Students must complete two short (300+ word) replies to other student presentations.
        - If your group members fail to present one lesson, you can reply directly to the instructor's lecture and the lesson material.
- **Podcasts:** At the end of each unit, students must meet with their group members via video conference to **record an hour-long conversation or "podcast"**. In these conversations, students are asked to discuss the material from the lesson, and also to participate in the Ethics Simulation activity.
- An **Independent Research Project** in Unit 3 involves scholarly research into a case study on **one** recent historical (post-1950) case of the student's choosing. This project is completed over two weeks (Lessons 10 and 11), with essays due each week. The finished assignment will consist of **two 750+ word reports (1500+ words total) constituting a single case study.** Students will also complete an **annotated bibliography with at least 4 scholarly sources,** and a

Research Presentation of 5+ minutes on the case study. The research project accounts for 17% of your final grade.

- **Two Reflection essays** are short written or audio essays (~700 words or 5+ mins). One is completed at the end of the semester, where students reflect on their work for the semester. The other can be completed at any other time during the semester. See assignment details below.
- **Participation credit** requires introducing yourself in Lesson 1 and promptly coordinating a presentation schedule with your groups.
- That's it! No final exams or other tests.

These are the major assignments for the course. The overall grade for the class breaks down as follows:

Lesson 1 = 50 pts
3 Lesson presentations: 75 pts each x 3 = 225 pts
3 podcasts = 75 pts each x 3 = 225 pts
8 replies= 25 pts each x 8 = 200 pts
Research project = 150 pts
Reflection essays = 50 pts each x 2 = 100 pts
Participation = 50 pts

Total = 1000 pts

Final grades are calculated on the following scale:

A: 900+
B+: 850+
B: 800+
C+: 750+
C: 650+
D: 500+
F: < 500

There is a 5 point tolerance for bumping a grade to the next letter when calculating final grades. Note that on this grading scale, one missing assignment can easily swing one's final grade by a full letter.

~~***** **ACCELERATED SUMMER SCHEDULE:** Summer courses will complete all 15 lessons in just over 4 weeks. That means completing a full unit of material each week, or about 15 hours of work each week. This is a significant time commitment, and it can~~

~~be difficult for students to stay on top of this schedule with other summer obligations. Please put aside the time to complete the required work for this course! *********~~

~~**Honors Sections: See Honors addendum on Canvas**~~

The full syllabus below describes grading rubrics, late policy, and all other course matters in complete detail. **Please review this document!** It will answer almost any question you have.

The rest of the syllabus is organized as follows:

- Course policy details:
    - accessibility
    - late work & extensions
    - attendance
    - Students retaking the class
    - citation format
- Plagiarism policy
- Grading policy and Final Grades
- Detailed assignment instructions
- Full semester lesson plan with readings. The schedule of assignments for specific sections can be found on Canvas.

Course policy details

Accessibility policy

I want all students to succeed in this class, and I will gladly accommodate the special circumstances and needs of all students to make sure that happens. I understand that life doesn't happen on the semester schedule, and that school work can't always be a top priority. Students who find themselves in a family or medical emergency, or experiencing other forms of precarity or crisis should prioritize their own well-being! Talk to me when you are able to and we can work out a plan. All my lesson plans and reading materials are freely available online, and video lectures have automated captions. If you find that my lesson materials are inaccessible, or if you are struggling with the lesson plan and assignment schedule **for any reason**, please talk to me about your situation and we'll work something out. Even if you're behind on assignments, drop me a message, I'm sure we can figure something out =)

In most cases I recommend students in a crisis get in contact with the Dean of Students (DoS), who can offer support for students in a variety of ways. You can contact the Dean of Students directly at dos@njit.edu or through this form: Student Concern form. The form is not meant to get you in trouble. The Dean of Students is equipped to discuss medical reports and other personal issues in a confidential manner, to go over your needs and how NJIT can support you. The DoS will inform me (and all your instructors) directly on legitimate absences that excuse your late work. If you expect a Dean's excuse for your late work, contact the Dean when you are able to, and complete your missing work and turn it in when you can.

Participation

Students are expected to stay on top of course material, and are expected to regularly check in with their groups for each Unit. This means, at minimum:

- Preparing for the course by watching the lectures and reviewing the material for each lesson, and by reviewing the course page on Canvas on a regular basis (2-3 times/week)
- Completing all required assignments on time according to the schedule on Canvas
- Coordinating a presentation schedule with group members before the start of each unit
- Coordinating and participating in a group podcast

Students regularly struggle to effectively communicate with their groups to coordinate a schedule for each unit. Given that coordinating with your peers is a basic element of engineering ethics, performance at this task will be graded. Specifically, **students will receive 50 points for successfully coordinating a presentation schedule with group members before the start of each unit.** See the assignment schedule for details. Moreover, **students who fail to coordinate a schedule before the start of the unit will be penalized up to 50 points**. These lost points can be made up with extra credit opportunities.

Attendance

Online sections of the course have no attendance requirements. All material is available to work through on Canvas. **Online students must still arrange for a live group conversation at the end of each unit**, and students should do their best to accommodate each other's schedules to arrange for the podcast.

Students in sections with a scheduled meeting time are expected to attend class regularly. Typically, we will discuss material as a class for the first weekly meeting, and students will present on the material in the second meeting. Attendance will be taken at the start of class through the class Discord server. Students more than 10 minutes late will earn 80% credit for that day's attendance. Students can earn up to 50 points extra credit over the semester, which amounts to roughly 3 attendance points per day.

For the Group Discussion at the end of the unit, class will typically meet in the classroom on the first meeting of the week to discuss the assignment and the Ethics Scenario. Then students are expected to meet as groups during the second meeting of the week, instead of meeting in the classroom. This ensures that all students have that time available for the group meeting. Students should then upload the recorded meeting to the appropriate place on Canvas for credit on the assignment.

Students who are retaking the class should plan to complete all assignments from scratch. You can discuss the same topics, use the same case study and sources etc, but you should write your posts and replies from scratch. Presentations that are unchanged from previous semesters **must be explicitly marked as such** to receive credit, and earn a maximum of 2/3rds credit (50/75 pts). Replies from previous semesters will not be accepted for credit. This policy may be flexible for lesson presentations or podcasts from previous semesters that

demonstrate significant effort, but low effort work from prior semesters might not be accepted for credit. If you have questions, send me an email.

Late Policy and Extensions

Unless otherwise stated, assignments are <u>due at midnight</u> according to the assignment schedule on Canvas. There is a 30 minute grace period for late assignments. Assignments submitted after a deadline will be penalized by 10%. Late Replies and Lesson Presentations can be submitted with a late penalty until the end of the unit. See the schedule on Canvas for details. Note: Canvas posts due dates for the end of the Unit, but individual assignments are due before that day! Check the assignment schedule for details.

After a subject unit has concluded, no assignments from that unit will be accepted without explicit prior permission. The unit ends at midnight before the next unit starts (typically midnight Sunday). The module on Canvas will close the unit, making it inaccessible to students without explicit authorization for late work, so please submit your work before the unit concludes! See the schedule on Canvas for details.

In an emergency situation or unplanned special circumstances that disrupt your capacity for school work, please attend to the emergency situation as a top priority! When you are ready for school work again, contact the Dean of Students through the links above to schedule an appointment where you can explain your situation. You don't need to share doctors notes or other personal information with me; my policy is the same regardless of the details of your situation. When you contact me, I'll work with you to plan out a way to make up missing assignments and recover your grade. **When I hear from the Dean of Students, I will waive any late penalties that might have accrued.** Note: Technical failures (my laptop broke, I don't have wifi) including power outages typically do not constitute an emergency situation justifying an extension. If a storm is coming and your power might go out, make sure your work is done before that happens!

For any non-emergency events, such as athletic events, academic conferences, job fairs, military service, or busy schedules around midterms and finals, I ask that you contact me at least 2 days in advance of the event to reschedule your assignments. In other words, **extensions will not be granted on the day an assignment is due.** If you contact me at least 2 days ahead of an event (eg, by Wednesday for an assignment due Friday), we can arrange some rescheduling of assignments to accommodate your event.

Make up assignments

In general, you cannot make up assignments to get a better grade. If you earn a poor grade on an assignment because you misunderstood the assignment instructions, or because of plagiarism, you should accept the penalty, appreciate the lesson learned, and try to improve for the remaining assignments in the course. If you catch your own mistake before an assignment deadline and have time to resubmit before the deadline you can do so. After the deadline, you cannot make up or resubmit an assignment for a better grade.

If you missed the scheduled deadline on lesson presentations or replies, you can still turn the assignment in late with a small penalty **until the end of the unit**. When the next unit starts, **no late work will be accepted for the previous units** without explicit permission. Note: please do not submit a blank assignment before the deadline, expecting to edit in a completed assignment afterwards. Students found submitting blank assignments will receive zero credit on the assignment, and cannot make this credit up later. If your assignment will be late, just submit it when you've completed it and take the penalty.

If you can't meet with your group for the podcast, you can make up the credit once by writing a **Podcast Review:**

- Listen to your group's podcast
- (If you haven't already) watch the presentations from other students in the group
- Write a 700+ word (~2 pages) or 7+ minute recorded audio essay in which you:
    - Engage with each presentation discussed in the podcast, and share your thoughts on those issues
    - Discuss and evaluate the role play scenario from the other students
- Post this essay on Canvas in the Completed Podcasts thread for that unit.
- Post the essay to the plagiarism check for that unit.

See full instructions on Canvas. This make-up assignment is only available once a semester and is worth 50 points. If you miss multiple podcasts, you must make the additional points up with other extra credit assignments. **Note:** If you cannot make your group's podcast, **you must notify your group at least two days before the podcast due date.** Failure to notify your group of your absence in advance will result in a 25 penalty.

Extra credit

You can complete the following assignments for extra credit:

- Complete one additional reply (300+ words) per unit beyond the required two. Cannot earn extra credit on more than one additional reply per unit. Post the reply in the Group Discussion forum before the end of the unit. Maximum 15pts x 3 = 45 pts.
- Complete one additional reflection essay (700+ words). Cannot earn extra credit on more than one reflection essay. Post the additional essay in the Reflection Essays forum. Maximum 25pts.
- Complete one podcast review (700+ words). Cannot earn extra credit on more than one podcast review. Listen to a full podcast from one group, and write 700+ words (2 pages) engaging with their conversation and/or ethics scenario. Post the review in the Completed Podcasts threads. Maximum 25pts.
- For classes with live meeting times, regular attendance can earn up to 50 pts extra credit.
- For classes with live meeting times, students can present material from their presentations from that unit for up to 25 points of extra credit per unit.

Extra credit replies must be submitted before the end of the unit and must be submitted to the plagiarism check for that unit. All other extra credit assignments are due at the end of the semester and should be submitted with the relevant plagiarism check assignment. See the schedule on Canvas for details.

Note: the penalty for any case of plagiarism is that you lose all extra credit opportunities for the semester! These points are lost forever and cannot be recovered.

Citation format

Students must distinguish their own work from the work of others, including AI generators and online translators. Any material quoted directly from sources must be indicated with "double quotes" and given a full citation at the bottom of your essay. Citations must include author, date, title, and publisher (if any). I prefer APA style citations, but you can use any style as long as you are consistent.

The point of these assignments is to develop your own thoughts; quoted or paraphrased material will not count towards the minimum word count. Posts that consist mostly of quotes and paraphrases from other sources will not earn credit. Use quotes sparingly to establish context for specific terms and concepts you want to discuss, but you should be doing most of the talking yourself. For sources cited in the lesson lecture or reading material, the author name in parentheses is sufficient, with page numbers where appropriate. For instance, your essay might read:

> Turing said that the question "can machines think?" was "too meaningless to deserve discussion." (Turing, 4)

This citation format is only acceptable for material I've made available in the lesson. For any material that was not provided explicitly in lecture, you should *at a minimum* provide a link to the source at the bottom of your post. For instance, if you looked something up on Wikipedia or found a relevant news article as you wrote your essay, *even if you don't quote it directly*, throw a link to the page at the bottom of your post. If you do quote directly from another source, **clearly mark the passage with "quotation marks"** and use inline author/page number citations (as above). Even if you don't quote from a source, any material used in preparing your essay should be cited. Failure to cite sources properly may result in point deductions on assignments, and may trigger the plagiarism penalties discussed above. **Note:** Full citations are required for your annotated bibliographies in research project weeks 10 and 11.

NJIT Plagiarism Policy

"Academic Integrity is the cornerstone of higher education and is central to the ideals of this course and the university. Cheating is strictly prohibited and devalues the degree that you are working on. As a member of the NJIT community, it is your responsibility to protect your educational investment by knowing and following the academic code of integrity policy that is found at:

http://www5.njit.edu/policies/sites/policies/files/academic-integrity-code.pdf.

Please note that it is my professional obligation and responsibility to report any academic misconduct to the Dean of Students Office. ***Any student found in violation of the code by cheating, plagiarizing or using any online software inappropriately will result in disciplinary action. This may include a failing grade of F, and/or suspension or dismissal from the university.*** *If you have any questions about the code of Academic Integrity, please contact the Dean of Students Office at dos@njit.edu"*

Copying and pasting from the web is a form of plagiarism. **Using AI text generators like chatGPT or Grammarly is a form of plagiarism. Failing to provide adequate citations is a form of plagiarism. Copying from your own work (including work from previous semesters) without acknowledgement counts as plagiarism. Changing a few words in an extensively quoted passage may constitute plagiarism.** In general, you should never copy large blocks of text from any other source and present it in your own essay as if it were your own words. That includes copying text from online text generators or translators. Check this link for a detailed explanation of legitimate paraphrase and illegitimate plagiarism. Any work you use should be given adequate citation so your readers can find and review your sources. Just as in mathematics, you need to show your work! If you use any source in your research, (including dictionaries, Wikipedia and other encyclopedias, and translation tools) *even if you don't quote it directly*, provide a citation.

To avoid plagiarism, you must clearly distinguish your work from the work of others. Any work taken from others must be identified with "quotation marks" and explicit citation. Changing a few words in a quote does not make it your work. If you use online text generators (like chatGPT or Grammarly), you must explicitly identify that text as not being your own work. You must also cite the explicit generator used, including the version and dates it was used. You must also supply the full prompt history generating that text as an appendix to your assignment. If you read a script in any presentation, you must include the text of that script to the plagiarism detection software on Canvas. If you translate your essay from another language, you must include the original untranslated text for comparison. Failure to do so will not earn credit.

Suspected cases of plagiarism will be given zero credit for the assignment with a final warning about the plagiarism policy. Students found plagiarizing will also forfeit all extra credit opportunities for the semester on the first offense. Repeated or extreme instances of plagiarism will be reported directly to the Dean of Students as a violation of the Student Code of Academic Integrity, with a recommendation to fail the course. **Note:** the research project is a honeypot for cheaters, and typically results in multiple instances of plagiarism in each section. I won't hesitate to fail students who cheat in my ethics course. Consider this your first warning.

I have substantially reorganized my class around group discussions and presentations to discourage the use of AI text generators. None of the writing assignments in class are "busy work". They all ask you to demonstrate direct engagement with the readings and with the ideas and perspectives of your fellow students. Please take this opportunity to engage your peers in discussions on ethics seriously!

See these Plagiarism Slides with detailed information on the NJIT and course policies on plagiarism, including examples of legitimate and illegitimate paraphrases, to help you understand the plagiarism policy.

Detailed Assignment Instructions

Overview of assignments

Each content unit consists of three weeks of lesson material and one week of group discussion. Lesson material consists of a recorded lecture with accompanying slides, along with several articles, videos, and other reading material. In the lecture, I will introduce that lesson's major themes, and I will briefly introduce the reading material for each lesson. The lectures will organize this material into three distinct "tracks" designed to help students explore the themes and readings. Students should watch the lecture videos entirely, and engage with the readings they find interesting.

Students are organized into groups of 5-6 people for each unit. At the beginning of each unit, students must choose one lesson in the unit to prepare a Lesson Presentation, where they engage more deeply with the readings and themes for that lesson. Students must select lessons so that every lesson has at least one student presenting, and no more than two students are presenting on any lesson. Students must coordinate this schedule before the start of the unit. Lesson Presentations are described in detail below.

In lessons where students are not presenting, they are still expected to engage with instructor lectures and lesson materials. They are also expected to watch the presentations from other students in the group, and to leave Replies on Canvas that engage with those student presentations on the lesson themes and readings. These replies should raise questions for the group discussion at the end of the unit. See assignment details below.

After three weeks of lesson material, students are expected to arrange a recorded group conversation, typically using Zoom. The group should designate one person to be responsible for recording the conversation and uploading the finished recording. Part of this conversation will review the lesson themes and cases discussed in the Lesson Presentations. The other part of the conversation will involve an Ethics Scenario that the students will play out and discuss. The full conversation should take around an hour, and should involve substantive contributions from every person in the group. An evenly distributed conversation among 6 people for an hour implies each person is contributing about 10 minutes to the conversation.

Specific assignments are discussed in detail below:

Lesson Presentations

Lesson Presentations are 10-15 minutes in length. They should include slides and audio recordings, and they should be embedded as playable media in the Canvas group discussion thread. One or two slides a minute means at least 5 content slides, plus a title, end slide, and citations slide means the full deck should be between 10-20 slides. Recordings should be uploaded to Panopto and embedded directly in the Canvas group discussion forum for that unit. See instructions for uploading your recording on Canvas.

Lesson presentations should engage deeply with some aspects of the lesson themes and reading material. I will briefly cover the themes and readings in my lectures for the lesson. Your Lesson Presentation should explain these themes in your own words, as well as give your own views on the themes and case studies for the lesson. The Lesson Presentation should also cover some subset of the reading material for the lesson, diving into more detail than is covered in my general lecture. You can dive deeply into one or two sources or cases, or you can touch on a few sources and relate them to the lesson theme. **You should not feel obligated to cover all the readings**; students are encouraged to focus on one of the thematic “tracks” which organize the readings. You don’t even have to cover all the readings in a single track. Covering material in multiple tracks is fine, but *please* don’t try to cover everything! Stick to just a few sources and readings and go deep, rather than saying a few general things about all the readings. You are also encouraged to incorporate other cases and sources you are familiar with through personal experience or independent research relevant to the themes for the lesson.

Other students in your group will watch and reply to your presentation, so you should be taking your group members as your primary audience for this assignment. Assume your group members also watched the lecture, but maybe didn’t look closely at the specific sources you are engaging. The podcast will involve discussing each other’s presentations, so this is your chance to clearly lay out your perspective on these issues in preparation for the group discussion.

Replies

Replies are short written responses to other student presentations of 300+ words, or about one page of typed, double-spaced writing in a standard font. Replies should engage with the lesson

themes and readings, and must explicitly engage with the content of other student presentations. In the Podcast recording at the end of the unit, students will ask questions and raise conversation about each other's presentations. You can think of your Reply assignment as preparation for that discussion. Replies are also a way for students to check in and stay on top of lesson material in weeks where they are not themselves presenting. Replies are due after the lesson, giving students a couple of weekdays to watch their peer's presentations before finishing their replies. See the assignment schedule on Canvas for details.

If two students are presenting on the same lesson, students can (but are not required to) divide their replies between the two presentations. You can ask a quick question on one presentation and a longer reply on the other, or you can divide your replies evenly between presentations. What matters to me from a grading perspective is that the total word count of engaged writing is over 300 words per lesson; in other words, what matters is that students are writing about a page a week engaged with peers on the issues and material from the lesson. Students should label their replies clearly for grading purposes in each Group Discussion thread with **Lesson ___ Reply** (with the specific lesson . If replies are divided between two lessons, label them Lesson ___ Reply a and Lesson ____ Reply b. Replies should not be divided further for credit; there should not be a Reply c, or a Reply 3. Only flag replies you want graded for credit. If you've completed your graded replies, you can continue using the group discussion forum without flagging further replies.

If students are in groups where no one has produced a Lesson Presentation by the deadline, they should write a reply on the lesson material and instructor's lecture directly. Please say explicitly in your replies that no presentations were finished when writing the reply. Otherwise, **replies must make explicit reference to other student presentations in your group.** You don't have to focus your reply entirely on their work. You can take something they mention in their presentation as a jumping off point for discussing your own views and ideas on the lesson themes and material. But there should be some explicit evidence in your reply that you watched their presentation and are considering the things they say in it.

Replies are graded on the following criteria:

- Is the reply appropriate for the lesson and classroom? Off topic or inappriopriate replies will not earn credit.
- Was it completed on time? Late replies earn a 10% penalty (-2 pts) until the end of the unit.
- Is the reply sincerely engaged with the material from other student presentations? Replies that are not engaged with other student presentations may lose credit (unless no group presentations were produced).

Group Discussion Podcast (Active Learning)

Your Group Discussion Podcast is a recorded 1-hour conversation among a Unit group discussing the lesson themes and case studies for the unit. **For classes with scheduled class times,** you should plan to meet with your group for the podcast during the Thursday class period for that week's lesson. There will not be a regular class meeting at that time to ensure

everyone has a free schedule for the podcast. **Online classes must arrange for a live one-hour meeting with their groups that fits the schedules of all members.** If a common schedule cannot be arranged, one student might agree to the make-up podcast assignment for that unit with a Podcast review; see instructions on Canvas for details. Groups should agree to a recording schedule explicitly in the group discussion thread for that unit. One person in the group should also volunteer to lead the meeting, and one person should agree to record the conversation and to upload the recording for the group. These should not be the same person. **Make sure to test your recordings and do mic checks before starting the conversation, you don't want to lose an hour of conversation!**

The easiest way to record the conversation is by arranging a WebEx meeting with group members. The student recording the podcast can host the WebEx meeting and record to their computer, and can then upload the file to Panopto and embed the video in the Completed Podcasts thread on Canvas as usual. The group can arrange other ways to record the conversation; as long as everyone in the group can participate and the finished product is an audio/video recording that is embedded directly on Canvas it will meet the requirements. Students must participate through a live audio contribution to the conversation. Video is fine but not required. Some simulations benefit from sharing a screen to coordinate the activity.

In a 6 person group, equal contributions to an hour-long conversation means each person should be speaking for around 10 minutes over the course of the conversation. A 5 person group would mean that each person speaks for 12 minutes. This can fluctuate a bit, but anyone speaking for less than five minutes is below expectations for this assignment, and may result in a lower grade on the podcast assignment for all participants in the group. The full hour conversation should involve direct engagement with the material. You should not spend significant time (more than 5 minutes total) explaining the assignment instructions to each other, discussing off-topic issues, or reading the material silently. Everyone should be prepared for the conversation before it starts, and should stay focused for the full hour. If more than 5 minutes of the conversation is off-topic, I ask that you either explicitly edit this material out of your recording, or at least flag it when you submit the recording so I know which parts to skip for grading purposes.

The person leading the meeting is responsible for keeping the conversation on track, for monitoring the time, and for making sure that all group members are contributing to the conversation equally, and that their contributions are being heard by the group. Otherwise, they should contribute to the conversation like other students. The conversation should move explicitly between the following segments:

Before Recording Checklist

- Before recording the podcast, make sure everyone is connected to the call and their microphone is working
- **Test the recording software.** Take note of where the saved file is located. Check the test recording to make sure it works and everyone's audio can be clearly heard in the recording.

- Make sure everyone understands the assignment and is prepared for the conversation.
- **Decide on roles in the Ethics Simulation.** Make sure everyone understands the simulation before beginning! You may want to brainstorm as a group before recording to make sure everyone understands their role in the scenario. You should not choose roles during the live recording! Your recorded conversation should jump straight into the Ethics Simulation after lesson presentation discussions.

Part 1: Introductions.

- Your group has been interacting for three weeks, so you know each other already. You should still say your names explicitly to link your voice with your name. You should also remind the group of which lessons you presented on, and any notable contributions you've made to the group discussions.
- **Do not start discussing presentations before introducing everyone in the podcast!**
- **No more than 5 minutes total on Introductions.**

Part 2: Lesson Presentations & Discussion

- Go through each lesson for the unit in order. The students who presented on those lessons should review the material and themes from that lesson, reminding the group of issues they raised in their presentations. The group should have a short discussion on this material. Ideally, everyone would say something about each other's presentations. Getting into a deeper discussion on the lesson themes and readings is also great. Ask each other questions and share your knowledge, experiences, and perspectives. You should NOT just read your replies to each other, but you can refer to what you wrote in the discussion board to develop some questions or analysis for the group.
- **No less than 25 minutes and no more than 40 minutes on Lesson Presentations & Discussion.** That means spending a minimum of 7-8 minutes reviewing and discussing each lesson with the group.

Part 3: Ethics Simulation (Active Learning)

- Your group is asked to engage in a simulated scenario relevant to engineering ethics. Each student will play some role in the case, and the group is asked to play through the scenario in your role, attempting to come to some resolution. Students should start the conversation already familiar with the scenario, and already having agreed on roles to play in the scenario. You should not spend more than 5 minutes of the recorded conversation coordinating these roles. Students should try to take the simulation aspect of the activity seriously for as long as they can. When a resolution is reached, students can drop the role-play aspect and discuss the broader ethical issues and implications raised by the scenario from their own perspective. See assignment details on Canvas.
- **No less than 20 minutes and no more than 35 minutes of the podcast should be spend on the Ethics Simulation.** Anticipate 15-20 minutes for the simulation itself, with another 5 minutes of post-simulation analysis and reflection. When the discussion has concluded the conversation leader should explicitly end the podcast to signal the end of the recording.

Both segments can go a bit longer, but they should not total fewer than 60 minutes of genuine conversation between the group members. If you finish the ethics simulation and still have 20 minutes on the clock, you should go back to discuss more material from the lessons. Groups should also be mindful of each other's time and not go significantly over 60 minutes. Podcasts that run less than 55 minutes of total content will begin to lose points in grading.

Full description of the Ethics Simulation scenarios can be found on Canvas.

Reflection Essays

You are responsible for two Reflection Essays over the course of the semester. All Reflection Essays should be posted in the Reflection Essays thread on Canvas.

Reflection Essays are 700+ words or 5+ minutes of recorded audio/video essays in which you explore some issue, theme, reading, or case study from the course in more detail. Other assignments in class (presentations, podcast, etc) have a focus on group interactions. Your Reflection Essay should be focused on expressing your own views and ideas on the course material. Reflection Essays earn 50 pts, and must be submitted to Canvas by the final day listed in the Assignment Schedule. It is strongly suggested that you submit your first Reflection Essay before the end of Unit 2 to avoid getting overloaded at the end of the semester. That said, there will not be a late penalty on this assignment if it is submitted by the end of the semester. See the Assignment Schedule for details.

You can treat the first Reflection Essay as a free writing assignment. Your audience is your instructor and other students in class; your goal is to educate us and to express yourself in a way that helps us appreciate your perspective. You can write about any issue related to engineering ethics and the class lessons, themes, and readings. Anything clearly related to course themes that you are motivated to write about for two pages is fine for this assignment. The only specific requirement is to demonstrate some explicit engagement with the course material. Mention case studies or readings we've discussed in class, or things your group has mentioned in conversation. As long as your essay is explicitly engaged with course material, meets the minimum word count, and is otherwise appropriate for the class, you will earn full credit on this essay. You will not lose credit for grammatical mistakes, although essays without sufficient formatting and editing so that I cannot understand what is being said might not earn credit. Essays that are not explicitly engaged with course material (perhaps due to AI generated text), or that fall significantly below the expected word count, or otherwise fail to meet the expectations for this assignment will receive partial or no credit.

The Final Reflection essay is completed at the end of the semester. This assignment asks you to reflect on your work this semester, what lessons stood out to you, and how this class might impact your future. You are also asked to respond to the Engineering Ethics skeptic, who doubts the value of this course. See full instructions on Canvas.

You can complete one additional Reflection Essay for 50 pts extra credit. This third essay is optional and not required. Please label your extra credit essay with the words **Extra Credit Reflection Essay in bold**.

If you're struggling to think of what to write about, consider one of the writing prompts below. You are not required to respond to any of these prompts, these are just to help students who aren't already motivated.

- **Personal reflection on ethics**: Write a personal essay about your own views on ethics and value. If you have cultural or religious traditions that inform your views that you are comfortable sharing with class, you might elaborate on those aspects of your perspective on the class material here. Similarly, if you have secular beliefs about the role of ethics and values in society, write a short essay on the philosophical basis for your views.
- **Expanded Lesson Discussion:** If there's some issue that came up in group discussion on some lesson or topic and you're just itching to say more about it, this is the appropriate outlet! Sometimes writing it out helps. Explain the issue as it relates to the class material, and work out your ideas in this essay. Provide some research to support your perspective.
- **NSPE Board of Ethical Review:** Select two recent (after 1980) cases from the NSPE Board of Ethical Review. Be sure to give a link to the specific case so others can read your analysis. Do not copy the analysis directly from the BER reports! Your analysis should describe the case and offer analysis in your own words. You may want to discuss the relevant precedent cases discussed in the BER analysis, but you should give primary analysis to two distinct cases.
- **Historical case study:** If you love putting together case studies, you can put together another short case study on some historical case relevant to class. It can't be a case covered in lectures or in your independent research project. Discuss the case in detail and give the case an informed ethical analysis. Put together an informative bibliography to support your analysis.
- **Conceptual analysis:** Pick some important term or concept that has come up repeatedly in our ethics discussions, and give the concept a thorough explanation and analysis with scholarly research. Terms like "virtue", "integrity", "duty", "responsibility", and "whistleblower" are good candidates for such analysis, but there are many others; pick a term you find interesting and worthy of careful analysis. Look up some scholarly sources that offer theories and explanations of the concept, and discuss how it is applied in engineering ethics cases and discussion.
- **Technical analysis:** Pick some recurring feature of the engineering workplace that has some major safety, security, or other ethical significance, and give it a thorough analysis. If you're not an engineer, pick some relevant ethical issues related to your field. Issues like corruption and sexual harassment are also appropriate for this topic. What are the major concerns, and how are these concerns addressed? Are these specific historical cases that exemplify these concerns?
- **Ethics of your field:** We've mostly talked about the ethics of engineering in class, but not everyone in class is planning to be an engineer. Even within engineering, there are many sub-fields (mechanical, chemical, etc) with specific ethical and safety issues that require specialized expertise. Write a reflection essay on the specific ethical challenges related to your field, and which might have been neglected in the general class

discussion. What issues do you anticipate in your career path that other engineering students might not appreciate?

Appendix A: Full Reading List

Lesson 1: Engineering Social Systems

Lecture slides

General Resource:

- Winner, 1986 "Do Artifacts have Politics?"

Track A: Challenger Disaster (1986) case study

- Textbook pg 11: Herbert Hoover, 1951 "The great liability of the engineer"
- Textbook (pg 106-113): Challenger Case Study
- Rogers Commission Report
- Documentary: Challenger: A rush to launch
- Documentary: ASCE Challenger Case Study
- Talk: Roger Boisjoly at MIT 1989 - Engineering Ethics: Constructive Responses to Difficult Situations

Track B: The Scope of Consideration

- Textbook (pg 12-15): Citicorp Tower (1978) Case Study video wiki
- NSF (2019) Report on Women, Minorities, and Persons with Disabilities in Science and Engineering
- AAUW (2010) Why so few?
- Leopold (1949) The land ethic
- Wallace (2004) Consider the lobster
- Wallace (2005) This is Water Full text

Track C: Engineering Ethics as a Social Coordination Problem

- Textbook pg 88-100: Engineering as social experimentation
- (Video) Case study: Millennium Bridge, London wiki
- (Video) Strogatz, "How things in nature tend to sync up"
- Loren Carpenter's 1991 Pong experiment, TwitchPlaysPokemon, r/place
- Nicky Case, Parable of the polygons, Evolution of trust
- Norbert Wiener, 1956 "I am a mathematician" (Read this excerpt from pg 324)

Lesson 2: Ethics and Consequences

Lesson 2 slides

General Resources:

- Dowie (1977) Pinto Madness

Track A: Pinto (1977) Case Study

- Ford Pinto: video, wiki, Textbook 3.1 (page 54-59)
- Gioia (1992): Pinto Fires and Personal Ethics
- Milgram obedience experiment (video)
- First Follower

Track B: Consequentialism

- Thomson (1984) The Trolley Problem
    - video, wiki, kym
- Consequentialism: video, wiki, SEP
- SEP: Doing vs allowing harm
- Awad et al (2018) The Moral Machine, website
    - Jacques (2019) Why The Moral Machine is a Monster

Track C: The banality of evil

- Textbook 6.1.1 (pg 146-172): Workplace rights and responsibilities
- Arendt (1962) Eichmann in Jerusalem
- (Video, Great Books Prof) The Banality of Evil, Eichmann in Jerusalem
- Katz (2011) The Nazi Engineers: Reflections on Technological Ethics in Hell
- Rosenblatt (1994) How do tobacco executives live with themselves?

Lesson 3: Duties and Obligations

Lecture slides

General Resources:

- Textbook 6.1.1 (pg 146-172): Workplace rights and responsibilities
- Textbook section 6.4 (pg 172-180) Whistleblowing

Track A: Hyatt-Regency Walkway Collapse (1981) case study

- (video) The disaster that changed everything
- (video) ASCE Hyatt Regency Walkway Collapse case study
- Investigation of the Kansas City Hyatt Regency Walkway Collapse (full report)
- Moncarz et al (2000) Engineering Process Failure - Hyatt Walkway Collapse

Track B: Deontology

- Textbook section 3.2 (pg 60-66): Loyalty and obligations
- De George (1981) Ethical Responsibilities of Engineers in Large Organizations
- Douglas Birsch (1994) Whistleblowing, ethical obligation, and the Ford Pinto case
- Deontology video/SEP/Wiki
- Categorical Imperative video/SEP/Wiki

Track C: Whistleblowing cases

- Textbook pg 173-174: Two cases: Ernest Fitzgerald and the C-5A; Dan Applegate and the DC-10
- Textbook pg 179 Q2: Virginia Edgerton
- Other cases
    - Marsha Coleman-Adebayo video NJIT talk wiki
    - Chelsea Manning video wiki
    - Edward Snowden video wiki
    - (Wiki) List of Whistleblowers
- (Video) OIG: Whistleblower 101
- (Video) OSHA Inspection Process / How to file an OSHA complaint
- Khan (2018) Whistling in the Wind: Why Federal Whistleblower Protections Fall Short of their Corporate Governance Goals

Lesson 4: Honesty and Integrity

Lecture Slides

General Resources:

- Textbook page 66-72: Competence and loyalty. Community and the Golden Mean.
- Textbook Chapter 7 (pg 189-216): Virtues of engineering

Track A: VW Dieselgate

- (epa.gov) Learn about the Volkswagon violations
- (caranddriver.com) Everything you need to know about the VW diesel emissions scandal
- (Wiki) VW Emissions Scandal
- Donut (Youtube, 2021) The Emissions Cheating Scandal goes Deeper than You Think
- Mujkic & Klingner (2018) Dieselgate
- Bovins (2016) The ethics of Dieselgate

Track B: Ethical Codes

- NSPE Code of Ethics
- NSPE Board of Ethical Review
    - Read and evaluate any BER cases after 1980
- Davis (1991) Thinking like an engineer
- Warford (2018) Towards a more caring code of engineering ethics

Track C: Honesty and Integrity

- Harris (2008): The Good Engineer
- Paine (1994): Managing for Organizational Integrity
- Chun (2016): What Aristotle can teach firms about Corporate Social Responsibility (CSR)
- Rea et al (2016): Corporate ethics can't be reduced to compliance
- (Crash Course) Aristotle and Virtue Theory
    - Aristotle's ethics SEP/Wiki
    - Golden Mean SEP/Wiki
    - Moral Luck SEP/Wiki
- (TED) Who was Confucius?
    - Confucius SEP/Wiki
    - (Crash Course) 2000 years of Chinese History! The mandate of heaven and Confucius

Lesson 5: Podcast Week (no lecture)

Lesson 6: Nuclear ethics

Lesson 6 Slides

General resources:
JS Nye (2023) Nuclear ethics revisited

Kyle Hill (Youtube) Half-life histories
WNA: Radiation and Health Effects
XKCD: Radiation

Track A: Fukushima
Fukushima Nuclear accident WNA / Wiki
Japan NAIIC (2012) Official Report
Kastenberg at al (2015) Ethics, risk and safety culture: reflections on Fukushima and beyond (Ch 9)
Bromit (2015) Emotional consequences of nuclear power plant disasters
Oughton (2016) Societal and Ethical Aspects of the Fukushima Accident
Frontline (2012, documentary) Inside Japan's Nuclear Meltdown
Kyle Hill (2021, Youtube) The Fukushima Nuclear Disaster, Should Fukushima release radioactive waste water?

Track B: Nuclear energy
Taebi et al. (2012) The ethics of nuclear power
Taebi (2010) How to Understand Sustainability in the Nuclear Debate
Parkins & Haluza-DeLay (2011) Social and Ethical Considerations of Nuclear Power Development
Chernobyl Nuclear disaster WNA / Wiki
    Kyle Hill: The Elephant's Foot, Chernobyl Awakens, Chernobyl has fallen
Three Mile Island disaster WNA / Wiki
    Kyle Kill: TMI What really happened
The Goiânia Accident Wiki / Kyle Hill
SL-1: Wiki / Kyle Hill

Track C: Nuclear weapons
Fuhrmann and Lupu (2016) Do arms treaties work?
Kehler (2023) Nuclear Weapons and Nuclear Use
Williams (2018) A nuclear babel: A nuclear babel: narratives around the Treaty on the Prohibition of Nuclear Weapons
Every Nuclear Explosion since 1945

Kyle Hill:
- The Castle Bravo Disaster - A "Second Hiroshima"
- Oppenheimer's "Terrible Possibility" - Atmospheric Ignition
- The Time We Nuked Five Men to Prove a Point
- The demon core
- ZAPORIZHZHYA: Will War Trigger a Nuclear Disaster?

Lesson 7: Fossil Fuel Ethics

Lesson 7 Slides

Track A: Deepwater Horizon Oil Spill

- Wikipedia: Deepwater Horizon Oil Spill
- Ingersoll BP and the Deepwater Horizon Disaster of 2010
- BBC Horizons (video, 1 hr): BP Oil Spill: The Untold Story
- BBC In Focus (video, 1hr): Profit Pollution and Deception: BP and the Oil Spill
- Klein: A hole in the world
- Houke: Worst Case and the Deepwater Horizon Blowout: There Ought to Be a Law
- Smith et al: Analysis of Environmental and Economic Damages from British Petroleum's Deepwater Horizon Oil
- Konopka "Public, Ecological, and Normative Goods: The Case of Deepwater Horizon"

Track B: Fossil Fuel ethics

- Frontline (documentary, 2022): The power of big oil Part 1 Part 2 Part 3
- Grasson (2020) Confronting the oil industry with morally relevant facts
- Hove et al (2002) The oil industry and climate change: strategies and ethical dilemmas
- Wood and Roelich (2019) Tensions, capabilities, and justice in climate change mitigation of fossil fuels
- Asselt et al (2023) COP26 and the dynamics of fossil fuel norms

Track C: Ethics under capitalism

- Wisecrack (2022, Youtube) Ethical capitalism: is it possible?
- Practical Engineering (2023, Youtube) Why there's a legal price for a human life
- Adam Conover (2023, Youtube) Chokepoint capitalism (with Cory Doctorow)
- Halliday and Thrasher (2020) The ethics of capitalism, an introduction
- Nail (2022) What is COVID capitalism?
- Crouch (2012) Sustainability, Neoliberalism, and the Moral Quality of Capitalism
- Hughes (2017) Energy without conscience (ch3: The myth of inevitability)
- Graeber (2012, lecture) Debt: the first 5000 years
- Fisher (2009) Capitalist realism: is there no alternative?

Lesson 8: Geoengineering

Lesson 8 Slides

Track A: Climate and Temperature

- Baez: Temperature
- Bloomberg: What's really warming the world? (free version)
- IPCC 6th Assessment Report (2021)
- climate.nasa.gov
- FT: Climate Change Calculator (Paris agreement)

Track B: Geoengineering

- Hank Green (2023, Youtube) A messy and unhinged introduction to geoengineering
    - ClimateAdam (2023, YouTube) Climate Scientist reacts to Hank
    - Is geoengineering going to save or destroy us?
    - Hank Green on RadioLab
- Pamplany et al (2020) The ethics of geoengineering: A literature review
- Adelman (2017) Geoengineering: rights, risks, and ethics
- Robock (2012) Is geoengineering research ethical?
- Rosen (2018) Biosequestration
- Lawhead: Climate Change by Design (Prezi)

Track C: Climate change ethics

- Textbook Ch 8 pg 219- 225, 232-237: Environmental ethics
- Peeters et al (2019) Moral disengagement and the motivational gap in climate change
- Thompson (2009)Responsibility for the end of nature
- Fragnière (2016) Climate change and individual duties
- Hormio (2023) Collective responsibility for climate change
- Fisher and Nasrin (2021) Climate activism and its effects

Lesson 9: Podcast week (no lecture)

Lessons 10 & 11: Independent Research project (no lectures)

Lesson 12: AI Ethics

Lecture Slides

Track A: History of AI
Mullaney et al (2021) Your Computer on Fire (Intro, Ch 1, 2, 6, 7, 8, 9)
Virginia Eubanks (2018) Automating Inequality (Intro, Ch 1, 2, 5)
Benjamin (2019) Race after technology (Intro, Ch 1, 3)
BobbyBroccoli (2022, YouTube) The image you can't submit to journals anymore

Track B: Intro to AI Ethics
Coded Bias (2020) documentary
Buolamwini and Gebru (2018) Gender Shades
Angwin et al (2016) Machine bias in sentencing
Asaro (2006) What should we want from a robot ethic?
Crawford (2021) *The atlas of AI* Intro, Ch 2, 3, 4
Whittaker (2021) The steep cost of capture
Bender (2022) Resisting dehumanization in the age of AI

Track C: Can computers think?
Mitchell & Krakauer (2022) The Debate Over Understanding in AI's Large Language Models
Baria and Cross (2021) The brain is a computer is a brain
Bender et al (2021) On the dangers of stochastic parrots
Chalmers (2022) Could a large language model be conscious?
Turing (1950) Computing Machinery and Intelligence
Haugeland (1981) Semantic Engines: Introduction to Mind Design

(Supplemental) Generative models & Demos

- Marcus (2018) Deep Learning: A critical appraisal
- Tensorflow Playground (demo)
- Tensorflow Embedding Projector (demo)
- 3blue1brown: Neural Networks. video series (S3 E1-4)
- Computerphile: Neural Networks video series
    - How AI image generators work
    - Stable Diffusion in code
    - How GPT3 works
    - AI Language models and transformers

Lesson 13: AI and autonomy

Lecture Slides

Track A: Autonomous weapons
Roff and Moyes (2016) Meaningful Human Control, Artificial Intelligence, and Autonomous Weapons
Amoroso & Tamburrini (2020) AWS and Meaningful Human Control
Sharkey (2018) AWS, Killer Robots, and Human Dignity
Asaro (2016) Autonomous weapons

Track B: Autonomous vehicles
Lin (2016) Why Ethics Matters for Autonomous Cars
Koopman and Wagner (2017) Autonomous Vehicle Safety
MIT: Moral Machine (2017 Publication)
Jacques (2019) Why The Moral Machine is a Monster
NHTSA Topic Overview: AV Safety

Track C: Robot rights
Estrada (2017) Robot rights: cheap, yo!
Danaher (2017) Should Robots have Rights? Four perspectives
Gunkel (2016) Can and should robots have rights?
Gunkel (2018) Robot Rights
Gunkel (2023) Person, Thing, Robot
Darling (2015) "Who's Johnny?" Anthropomorphic framing in human-robot interaction, integration, and policy
Darling (2016) Extending legal protection to social robots
Bryson (2010) Robots should be slaves
Bryson (2017) Of by and for the people: the legal lacuna of synthetic persons

Lesson 14: Future of work

Lecture slides

(Readings and lectures posted soon)

Track A: Technological unemployment
Biographics (2023, Youtube) The Luddites: Raging against the machines
CGP Grey (2014, Youtube) Humans need not apply
Frey and Osborne (2013) The Future of Employment
Lima et al (2021) Understanding Technological Unemployment

Track B: Post-work
Danaher (2015) Demanding a post-work future
Graeber (2018) Bullshit Jobs (ch 1)
Graeber (2018, Youtube) On bullshit jobs

Odell (2019, Youtube) How to do nothing
Danaher (2017) Will Life Be Worth Living in a World Without Work?

Track C: Attention and value
Matsuda (2010, Youtube) Augmented (hyper)reality
Matsuda (2016, Youtube) Hyper-reality
RSA (2010, Youtube) The surprising truth about what motivates us
Veritasium (2023, Youtube) What the longest running study on happiness reveals
Watterson (2013) A cartoonist's advice

Lesson 15: Course wrap up (no lectures)

Appendix B:

Comics used on Canvas

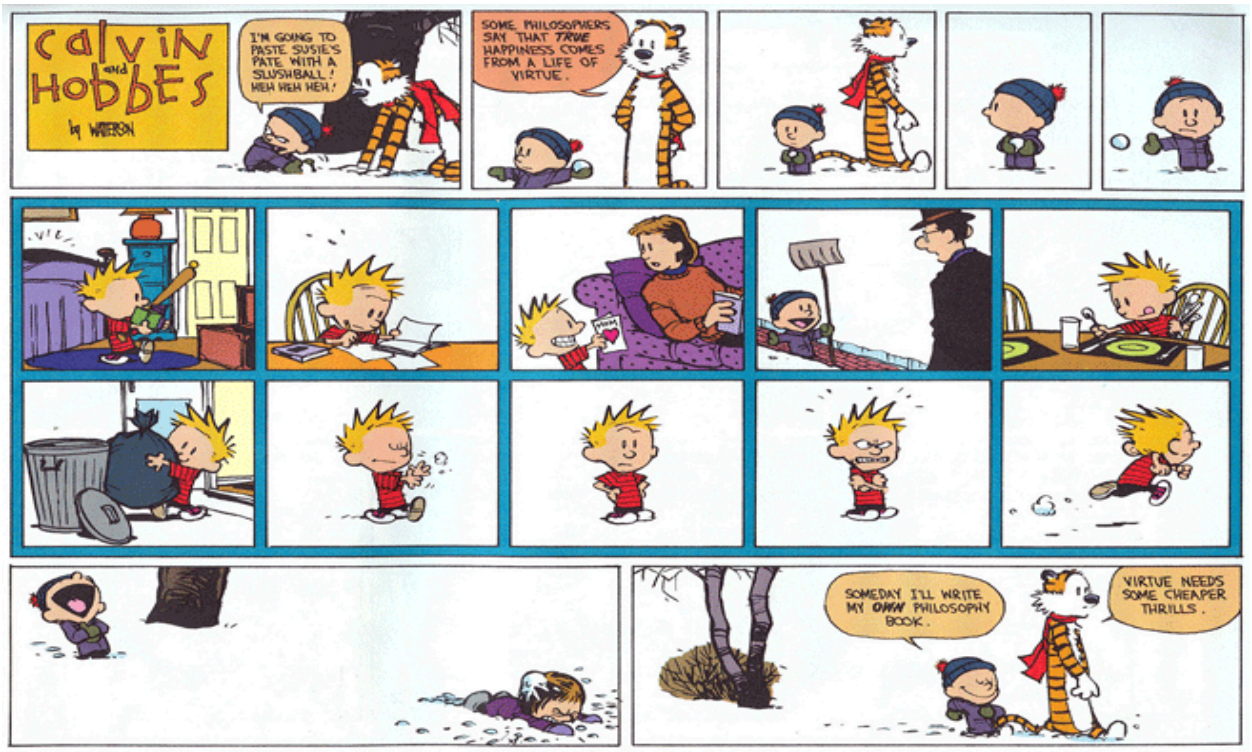
For the Lesson 1/Introductions thread:

Alt text: A Calvin and Hobbes comic. Calvin and Hobbes walk through the woods. Calvin: "Today at school, I tried to decide whether to cheat on my test or not. I wondered, is it better to do the right thing and fail... or is it better to do the wrong thing and succeed! On the one hand, underserved success gives no satisfaction... but on the other hand, well-deserved failure gives no satisfaction either. Of course, most everybody cheats some time or other. People always bend the rules if they think they can get away with it. ...then again, that doesn't justify MY cheating. Then I thought, look, cheating on one little test isn't such a big deal. It doesn't hurt anyone. ...but then I wondered if I was just rationalizing my unwillingness to accept the consequence of my not studying. Still, in the real world, people care about success, not principles. ...then again, maybe that's why the world is in such a mess. What a dilemma!" Hobbes: "So what did you decide?" Calvin: "Nothing. I ran out of time and had to turn in a blank paper." Hobbes: "Anymore, simply acknowledging the issue is a moral victory." Calvin: "Well, it just seemed wrong to cheat on an ethics test."

For the Unit 1 Discussion Board:

Alt text: Whenever I need to do some serious thinking, I go for a walk in the woods. There are always a million distractions out here. I don't believe in ethics any more. As far as I'm concerned, the ends justify the means. Get what you can while the getting's good - that's what I say! Might makes right! The winners write the history books! It's a dog-eat-dog world, so I'll do whatever I have to, and let others argue about whether it's

Unit 2 discussion board:

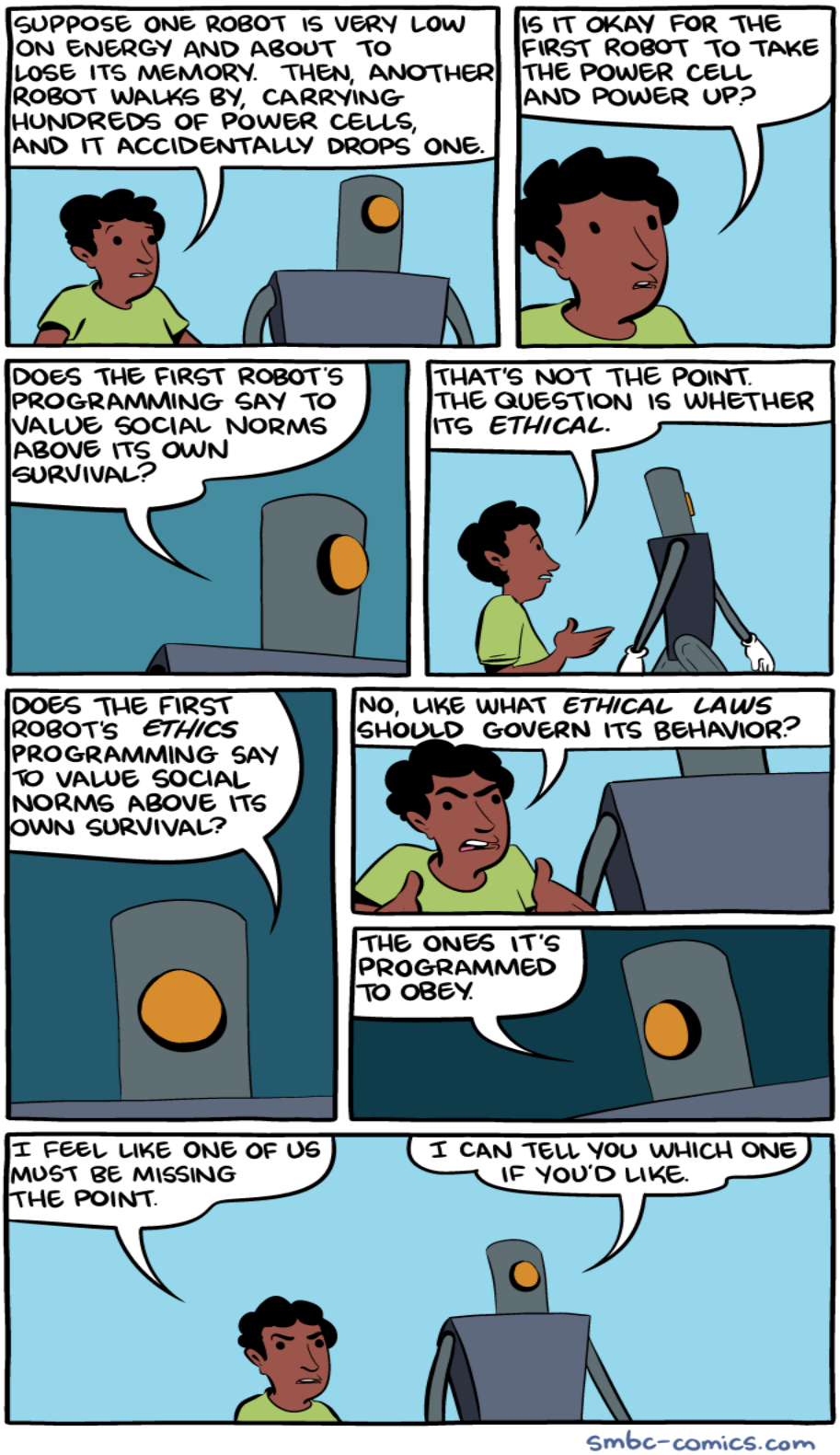


I don't know why we're wired this way, but we are.

Alt text: I'm going to paste Susie with a slushball! Heh heh heh! Some philosophers say that TRUE happiness comes from a life of virtue! Someday I'll write my OWN philosophy book. Virtue needs some cheaper thrills.

Unit 3 discussion board:

Unit 4 discussion board:



smbc-comics.com

Canvas Boilerplate

Introductions thread
Hello class! This is the first discussion thread for the semester. **You should complete the following three assignments for this thread:**

1. **Set your Canvas avatar** (**5 pts**)
2. **Introduce yourself to the class** (**5 pts**). You'll also want to introduce yourself to your Unit 1 group and arrange a presentation schedule in the Unit 1 Group Discussion thread, but in this thread you can introduce yourself to the entire class.
3. **Discuss the Lesson 1 lecture and reading material** (**15 pts**).

Leave your introductions in this thread. Completing introductions will earn 10 points of extra credit. Be sure to select an avatar for full credit!

This class depends heavily on your engagement in these forums, so it is important that we all get acquainted. Pick an avatar in your Canvas profile so we can recognize each other (it doesn't have to be your picture, just some unique, classroom appropriate image), and get comfortable with the format of these discussion forums because this is where we'll be doing most of our work. Introduce yourself below (preferred name, pronouns, etc), and be sure to answer:

- What is your major, year, career goals etc?
- Do you have any background in philosophy or ethics? If so, what did you study?
- What do you expect to learn from this class?
- Why do you think this class is a requirement at a technical school? Why is ethics important for engineers?
- We'll return to your expectations at the end of the semester. Any comments to your future self reading this intro in a few weeks?

You'll introduce yourself again to smaller groups a few times over the semester, so you might want to craft a short bio you can easily copy into future group discussions. I'll start: You can call me Dan, I use he or they pronouns, and I've been teaching this course at NJIT since 2014. I completed my PhD in Philosophy from the University of Illinois, Urbana-Champaign in 2014, and I also hold a BS in Computer Science from the University of California, Riverside from 2003. The philosophy of technology is my passion, and I love teaching this course online! I have strong opinions on these issues, and my biases will probably come through the in the lectures. That's why it’s important for us to hear from differing points of view. This class allows for a lot of diverse interaction, and I love watching the dynamics of these classes develop over the semester.

The format for this course is completely new for this Fall 2023 semester, and I'm not sure it will totally work, so your feedback will be important! I hope you all enjoy the course, I have a lot of fun putting it together!

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