

SYLLABUS

ENGINEERING ETHICS- PHIL 334

PHIL 334 - ENGINEERING ETHICS

Section	CRN	Days	Times	Location	Delivery Mode
005	95611	MW	11:30 AM - 12:50 PM	CKB 124	Face-to-Face
007	95612	TR	4:00 PM - 5:20 PM	CKB 120	Face-to-Face
009	95613	T	1:00 PM - 2:20 PM	KUPF 211	Face-to-Face
		R	1:00 PM - 2:20 PM	CKB 106	

Please note: This syllabus applies to multiple sections. In cases where the day/time is mentioned, correct it for yourself to reflect the section to which you are registered.

Instructor: Dr. Gareth A Edel, Department of Humanities and Social Sciences, SCLA, NEW JERSEY INSTITUTE OF TECHNOLOGY

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My Office Location: Cullimore Hall Rm 317

Preferred Form of Contact/Communication: Email within Canvas, Class chat in Discord.

Non-urgent messages via Office phone, Campus ext.: 5616 / (973) 596-5616.

Urgent text/call: (646) 479-3236 (Please note, Absence or lateness does not constitute an emergency)

Professor Edel will aim to respond to emails on canvas within 24 hours, other communication may take longer.

DESCRIPTION From the Course Catalogue: PHIL 334. Engineering Ethics and Technological Practice: Philosophical Perspectives on Engineering. 3 credits, 3 contact hours (3;0;0). Prerequisites: [HUM 102](#) [Links to an external site.](#) with a grade of C or higher, and one History and Humanities GER 200 level course with a grade of C or higher. A philosophical examination of the nature of engineering practice and applied technology. Considers such questions as: How do the societal functions of engineers and the practical application of technologies relate to basic moral and intellectual values? What moral obligations are implied by the uses of technology? What are the ethical duties of engineers in the practice of their careers? How are technological practice and engineering related to questions about knowledge and reality? This course satisfies the three credit 300 GER in History and Humanities.

PROFESSOR'S SPECIFIC COURSE DESCRIPTION: As individuals and members of society, we are called on to make decisions. The study of ethics is traditionally the mechanism to reach better decisions/actions. This course presents a philosophical examination of the nature of engineering practice and applied technology as ethically loaded. This loading, that each decision has ethical ramifications, means that one must make engineering and technical decisions to the best of one's ability. The course considers such questions as: How do the societal functions of engineers and the practical application of technologies relate to basic moral and intellectual values? What moral obligations are implied by the uses and creation of technology? What are the ethical duties of engineers in the practice of their careers?

By introduction to a socially scientific perspective, and traditional philosophical ethics students will be introduced to active ethical thinking in professional settings. The course focuses on the way that professional decision making often fails to meet held ethics and are often not intentional. Thinking of 'business is business' without reference to ethical thinking means engineers and professionals may not be producing the effects and actions that they intend, nor may they be aware of the implications of their decisions and actions. The course is based on the premise that the use of humanities and social scientific observation and perspective allows improved attention and self-determination, which in turn produces better technological innovation and professional outcomes. Rather than leaving ethics to be an afterthought student learn a language and framework of attention towards both formal and informal systems of ethics placed on engineers and other professionals.

Through written work and directed readings students will work to develop ethics as a reflexive and direct mechanism so they will improve their ability at 'decision-making' and directing their actions to the goals and aims they accept by joining a professional field such as engineering. Readings of specific case studies as well as general framework seeks to develop the ability to interpret and find ethical elements and consequences within technologies and their social effects. In the end students should know 'what you are signing up for' in joining a professional body, particularly engineering, and what a profession is. Additionally, the expectation is that students will practice and develop communication, writing and researching skills which will enrich future professional and engineering practice. This is a reading and writing heavy course.

Student 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
- Develop fluency with basic language of ethical evaluation and perspectives, including the STS perspective that technology is not neutral and that technical decisions are inherently ethical and important.
- Learn to use theory/concepts to allow the expansion of available choices and perspectives.
- Increase ability to recognize, evaluate, and articulate ethical aspects of technical choices and to frame how technical choices should be better made.
- Improve ethical decision-making skills through practice at intentional decisions and through familiarizing oneself with available ethical theories and established case studies.
- Generally develop reading and communication skills in the Humanities and Social Sciences through course work.

FLIPPED CLASSROOM FORMAT WORKLOAD

This Class is a departure from previous semesters. I'll be providing the lecture in recorded format, to be listened to before or as you do the readings, and to be completed BEFORE the in-class discussions and activities. It becomes particularly important that you are able to keep up with work, completely listening/watching the lecture, and reading prior to class- because the classroom format is for asking questions and discussion, not to repeat the lecture.

This class is a full credit course - it expects 6+ hours of reading and 'homework' done outside of class each week of the semester. This will include a weekly 1hr pre-recorded lecture, as well as reading and writing.

The work to be completed each week/weekend before the Monday/Tuesday Morning class thus Includes listening to the lecture, academic readings, note taking if needed, research and writing for the final paper, and time you will spend thinking/analyzing and interpreting what we've read and talked about. At the end of each week you'll be submitting a response writing, that you'll have begun in class-sessions, explaining your interpretations of the weeks material, and submitting the in class-activities when there is one.

You are strongly recommended to schedule and develop a routine so that work is manageable.

Each Week Students need to arrive in the first meeting on Tuesday at class having listened to the lecture and COMPLETED ALL ASSIGNED READING. Students must have completed reading before class time of the first class of the week. This means each week's readings should be completed over the weekend prior to class.

The reading response writing will no longer be submitted by the class time on Monday/Tuesday to be on-time. They will be worked on during both classes, and completed for submission at the end of the week. They will record impression, interpretation, and notes or include the product "in-class exercises" where those take place. With this method more feedback can be given on writing, research, and class progress directly. I always provide longer/detailed feedback and comments on submitted work in office hours, otherwise, grades will be posted when available on Canvas.

In class students should be prepared to respond to and understand the Lecture for the week which will refer to content from the readings. The central part of each class of the week is dedicated to discussion of the course concepts and cases, and will have both open and structured opportunity for student participation. Participation is required- but even simply asking questions, can satisfy this requirement.

Readings: There will be between 40+ pages of reading some weeks. Students should have completed the readings *prior* to the first meeting of the week and must be prepared to discuss them. **Completion of readings prior to class meeting is fundamental to understanding lecture material, and being able to participate in discussion.** All selections and readings will be made available on the course Canvas as PDF documents, some will also be ordered at the bookstore for students who prefer to buy hard copy.

OFFICE HOURS

- My job is to help you learn and understand and I want to help, please come- Direct communication is often the best way to help.

Students from any section should come to office hours. There is no reason to feel awkward or uncomfortable about asking for support and assistance from professors in understanding and engaging with course materials and assignments. Office hours are your best mechanism of determining course standing and having questions answered in direct and one-on-one format to guarantee your progress. Students often feel 'shy' about taking up faculty time and embarrassed about not getting everything and needing help, it is a good thing to practice working past this, pre-write questions or prepare if it is more comfortable, or simply visit and say "I am confused" the meeting time is to be of use to you. It is informal to the extent that that allows open dialogue, but please maintain the standards of contact and communication you'd use when talking to anyone you aren't friends with.

WHILE APPOINTMENTS At OTHER TIMES ARE AVAILABLE- THE PRIMARY MODE IS “ DROP-IN HOURS” During Which NO appointment is necessary, please come, speak, have questions answered. I’m just going to be sitting there in my office CULLIMORE 317 with zoom open, waiting for Students to join me either in person or online.

Monday: 1:30- 3:30 pm

Tuesday and Thursday 3:00- 3:30pm

Wednesday 1:30- 2:30pm

So, Please- come seek answers, assistance, discussion, You can come ask one question, or many, want to know how your writing is, want help with research on your paper? I’ll be there.

Topic: Professor Edel- OFFICE HOURS - Time: This is a recurring meeting Meet anytime TO Join Zoom

Meeting: <https://us02web.zoom.us/j/85793660316?pwd=MGdabjBDSdJ3Njdsak9GQVdhNWhtQT09Links to an external site.>

Meeting ID: 857 9366 0316 Passcode: 876742

One tap mobile +19292056099,,85793660316#,,,,*876742# US (New York)

Dial by your location +1 929 205 6099 US (New York)

Meeting ID: 857 9366 0316 Passcode: 876742

Note- The invitation to Office hours will be posted to the Canvas. Students may choose to have cameras on, but Prof. Edel will never require camera view, and students may choose to use “Chat” Text function in Zoom rather than Speaking with voice.

Class- DISCORD ‘channel’

Strictly ‘optional’ this is an alternative, and extremely useful platform to both add to your discussion and participation in class, as well as to receive aid and have question answered. A link is provided on the canvas, and invitations will be sent to all students. If you don’t use, or can’t use Discord, please discuss an alternative if you wish to have an option for communication among students, or to ask questions outside of open discussion in class.

CANVAS LMS & TEXTS/READINGS

All readings are provided by the professor in pdf/digital format Via the CANVAS page for the class. Students have responsibility to find these readings and to complete them in the scheduled timing. All homework, including specific assignments and weekly response write-ups are due on canvas in the folders provided. Please speak to me about permission to submit late work in office hours , please speak to me about specific circumstances.

If you are aware of a student who does not have access to adequate computing equipment, or high speed internet access, please direct them to the [Office of the Dean of StudentsLinks to an external site.](#)

PLEASE NOTE: All readings listed are required except where marked specifically as recommended and will be referenced and required for exams. The semester research project will be somewhat self-scheduled, but preliminary deadlines are set. It is strongly recommended that you not let it slide to the end of the semester, the deadlines on the course outline below are required for Both online and in person and work should be submitted in Canvas by Friday of the week listed.

ACCOMODATIONS:

Different students need different things, more time? Extension? Different format of work? Talk to me, come before the problem becomes unmanageable, I do not require but strongly recommend seeking Student support from the campus- they have resources to meet your needs, either Technological or accommodation Please talk to the professor and or contact Students who need an accommodation should be directed to the [Office of Accessibility Resources and Services -Links to an external site.](#) (OARS). **Students in need of accommodations or with disabilities** - I don’t strictly require students to conform to official policy, any student who requests extra time on exams, or a reasonable accommodation of their needs to perform or be comfortable in class, I will attempt to assist or meet your needs. To be accommodated seek to express your needs to the professor as early in the process as possible and be open about any limits or preferences that may need to be considered in your performance in class. Officially and Additionally- **Any student requiring accommodations due to one or more disabilities should also make sure to contact the Office of Accessibility Resources and Services** (Kupfrian Hall 201, Email at DSS@NJIT) both for themselves and to support the maintenance of good policies for other students who need support. Students who are ESL or Learning Disabled should inform the professor and will be allowed to negotiate appropriate modification to course expectations.

ASSIGNMENT DESCRIPTIONS AND COURSE WORK

EXAMS- This course requires students to demonstrate their learning in two exams, a midterm/first exam, and an end of semester second or final exam. Both exams are **Cumulative**, that is cover all material up to the point of the exam, including readings, lectures, and in the case of classroom meetings, all contents of class discussion.

QUIZZES- The quizzes for the class will ask simple informational, as well as more complicated conceptual questions to encourage you to complete the readings. Quizzes will be an average of 3-5 questions- provided on Canvas to be completed at the first class of the week, students will need to complete them at that time, approx. 15 min on Monday/Tuesday. Students are expected to complete 7 (of 11 possible quizzes) for full credit. Students may determine how many quizzes from the 11 weeks of available quizzes to complete, but all graded quizzes must be completed at prior to lecture in class.

Participation- Students are part of a discourse or dialogue in the class, and you and your peers are an important part of the learning where it is possible. If you have questions ask them, if you have interpretation or observation mention them. If you disagree with the professor, say so, but explain why. Students may fill in points for participation with extra credit, and partial credit is available for participation in the Online discussion on Discord. In-Class Activities will additionally be a component of participation credit.

RESEARCH PROJECT- Over the course of the semester students will write 15-20 pages, including academic article citations in a literature review of a descriptive case study. You will develop a case study to show the profile of a particular decision within a defined situation, showing both context and reasoning where possible. The goal is to answer “what happened, who did what, and were those decisions and actions ethical according to a specified system of ethics.” Students will define a system of ethics to apply in evaluation, and then apply it to the context/case they researched.

Topic- Every student will select one ‘subject’ interesting to them, it must a) relate to some degree to technical and professional practices, that is some people working with or creating technologies need to have made decisions and done things. Additionally, b) students will need to select a topic about that subject where they can find research materials. The Specific Subject of the project is open to student selection because the key focus of the project is three parts 1) Isolate and define a set of decisions that were carried out, 2) profile who and what is/were involved in making those decisions, and 3) define an ethical argument about what you consider the ethics of the decision and its consequences were. Because all three of these elements may be applied to almost any decision, student interest should direct focus allowing you to have more fun in the process. Please speak to the professor if you need help choosing.

Research- Students will use the NJIT library database and outside resources to find writings that provide factual description of events and participants. Documentation of the case as well as interpretation and evaluation needs to be cited properly. Students may choose any citation format/style but must apply it correctly. Students may use non-academic/peer-reviewed materials also, particularly in the case of recent cases, but must use/include content from a minimum of 8+ academic/Peer-reviewed or editorially reviewed sources (journal articles or books). Students will cite all issues of fact, both details of case, and claims they use to support their ethical evaluation. Students will need to make clear they demonstrate understanding of course materials, and use course terminology.

READING RESPONSES – Weekly response writing may include your direct response to reading & Lecture, as well as your impression and response to course concepts. Additionally you would attach any product of the in-class activities in this document.

Each week of the class a reading response may be submitted, student must Submit a minimum of 7 weekly reading responses of the possible 13 weeks. *Students who are having difficulty with participation in class are encouraged to do extra response writing as a way to make-up those missing participation points, and may complete up to the full 13.*

Reading responses must be 500-750 words, around two to three pages in length (if double Spaced). SUBMIT AS PDF Document or WORD DOCUMENT NOT AS A LINK TO AN OUTSIDE SITE. Your name must appear along with the topic or week of the class in the file name.

Student response writing may focus on any elements of the reading for the week but point grade is based on a three part heuristic.

(1) show you read completely and carefully. I must be able to see you have substantially completed the readings. The response is to all the readings, synthetic, that is linking all the readings not only responding to one reading. To demonstrate reading them all, in weeks with multiple readings, you should mention them all, even if you focus on one.

(2) Document participation in the class activities, include response to class discussion, thus recording and demonstrating active participation in the course during class meetings.

(3) Demonstrate thought and engagement, this means not only summarizing a simplified version of the readings. You need to a) show you have some understanding of the article & lectures content (note- This may be through detailed interrogation of a concept or explaining your confusion and asking questions if you do not understand.) And b) link it to course content, concepts and discussions from other days, multiple readings from the same or other weeks.

For example talking about one article, or concept as agreeing or disagreement with other week’s materials and readings.

You must mention/cite at least one reading by Author’s Name correctly. IF YOU ARE USING QUOTES or Paraphrasing, you must properly cited quotations and paraphrasing, that means using author’s names from the author. Good responses may link to outside knowledge and materials from outside the course but should still demonstrate engagement and focus on the reading. You should find commonality or disagreement between all readings for a week, and explains why you chose to focus on a particular topic.

Grading

Percentage Based Grading and Self-Assessment- It is a skill to be able to keep track of how you are doing, you are all supposed to be doing that work, know what is due (it’s outlined on the syllabus) and keep track of it. This course uses a simple point based grading system to encourage and allow accurate self-assessment. All work is graded in points out of 100% in the final semester grade. Each piece of work you turn in, and each component of the class has a set value, those values are predictable. The biggest difficulty in

self-assessment is the “participation score” of the face-to-face class, to know how you are doing on that one, you can use two methods, comparison to the amount of contribution and participation in class discussions among peers in the class, or asking the professor for evaluation in Office hours, you are strongly recommended to participate more if you are uncertain if you are participating enough. The grades posted on the Canvas gradebook are one tool to maintain your self-evaluation, but the “semester grade” it presents will never be complete without participation and other elements not scored in that grade.

Key to this is that you can “decide” or choose what grade to get, work towards that, correct path or respond to changes, for example students who have discomfort or difficulty speaking in class/groups may realize they will not gain full points for participation, they should decide if the loss of points there presents a barrier to action desired- getting a high grade? If you want an A and won’t be able to talk in class, you would need to choose to do extra credit. The syllabus offers key information on this process, for example showing that extra reading responses can be done to balance for points lost on participation, students who are self-aware and evaluate likely outcomes may choose to do extra reading responses to balance a known issue with participation. BUT, if you are using the extra reading responses to fill in for participation – and then have problems on the midterm, different additional extra credit may be necessary to achieve the A you wanted. Alternatively some students may choose to aim for a B, if a student wishes to only receive a B, they may decide where their efforts are best directed, what actions to take according to that decision.

This process is ongoing and you should be reconsidering and reevaluating your performance as the semester progresses.

Regarding “subjective” grading: the content of any argument in is based on three things: the factual/textual material used in support, the logic of the connections, and the substance of the connection between the answer and the question it refers to. In grading you are dependent on my ability to see and understand these three elements, and you should remember in considering your answers and the grade they receive that this is not arbitrary but responsive to the content of the answers you provide.

Note: These days policy at NJIT- students cannot Have Incompletes unless the Dean of Student’s office has provided explanation. We are being pressured not to do change of grades for students after the semester ends, this means all work has to be in on time before the end of Exam week.

GRADE COMPONENTS

Class Participation	20%
Reading Responses	21% (7 x 3pts each minimum requirement of 13 available)
Quizzes	9% (7x 1.5 pts each, minimum requirement, of 10 available)
Semester Research Project	25%
(Proposal/Topic -2pts; Initial research Bibliography 4pts; Completed Ethical Evaluation Profile Paper 14pts)	
FIRST/Midterm Examination	10%
Final Examination	15%
Extra Credit-	Variable

COURSE PERCENTAGE/LETTER GRADE DISTRIBUTIONS:

A= 100%-90%	B+ 89-86	B= 85%-80%	C+ 79- 76	C=75% -70%	D+/D=69%-55%	F=54% - 0%
A: Superior	B+: Excellent	B: Very good	C+: Good	C: Acceptable	D: Minimum Required	F: Inadequate

Note: pluses and minuses will be given for assignments, Final grades do not contain Minuses and will be rounded to nearest letter grade or Plus per NJIT’s bizarre policies.

This course does not use a curve, nor does it do student-student comparison. Student learning and progress to the learning outcomes is to be measured using the following mechanisms:

COURSE POLICIES

PROFESSOR’S NOTE- How To Do well in this Class:

The purpose of assignments is to aide in learning and evaluation, even if work deadlines is past you may wish to do it- your writing and reading is an integral part of learning.

The course is not arbitrary, the pedagogy (structure and way of teaching and supporting learning) of university courses, is based on how people learn.

Please do the work. When you submit work, not just for my class, but in general. You **MUST** always include key identifying information on email subject and document titles. So ideally- your name, the class, the assignment title and or date, as well as any other detail information such as type (extra credit, late response paper, etc).

When a professor hasn’t requested otherwise, submissions should be in Word or PDF Document format, they should not be submitted or sent as a link to an editable Google doc or drive document, which may prevent the work from being read. The exception is when a cooperative document for multiple people is used on google docs or another platform in which case you should also provide draft/stage versions in stable formats like PDF.

If you intend to submit/send Important work by email- the student or whoever is sending work, is responsible for ‘follow up’, that is you should ask in person or by email if a document was received/credited. The more important work, email, or other

correspondence is to *YOU* the more you should accept responsibility for checking and confirming receipt and action based on the message.

Students who want to know standing in class, who need support, who need clarification, assistance with understanding, have access to three things, first is other students in the class, secondly the syllabus, you should know and understand the syllabi in each of your classes, and third, you should come to office hours, talk to your professors, and seek answers to your questions.

Students in college are learning many things, but I want you to understand something, nothing you learn in a math/technical class will be as important to your professional/career/life after college as working on good study & reading skills, communication skills and habits, planning & time management, scheduling and work organizing for projects.

Attendance Policy- Ideally you won't miss any classes. Please. **Consistently attending class is an expectation of all classes** - missing only 1-2 classes throughout the semester, and making up any work you missed is the basic limit before it may negatively effect your grade. Officially, students automatically fail a class after missing 'a substantial portion of course days' often considered 6 class sessions without Dean's excusal. I am 100% not rigid in applying this, if you need to miss class, the important thing is making up all the learning. THE EXCEPTION IS THE TWO EXAMS. THESE EXAMS ARE NON-RESCHEDULABLE WITHOUT A LETTER FROM THE DEANS OFFICE. Explanations need to be non-reschedulable, and non-prioritization based. **Despite the complex pressures students are under, you will not be excused due to prioritizing other predictable obligations.** Some flexibility based on circumstances, presence for Lecture and discussion is included in exams.

Class sessions Format & Lateness Policy- Class sessions will be a mix of lecture, discussion, and in-class group and individual writing activities, on a daily basis in class students will get new material in the class meetings. Attendance and arriving on time are fundamental to successful participation in a seminar class. **Reoccurring tardiness/lateness more than 5 Min after class is scheduled to start will affect participation grades.** Students should be on time for class, the school provides a transitional 10 min between time slots, and if students schedules make arriving on-time "difficult" they have a responsibility to manage their time, and to make arrangements with another student to assist in covering any material missed in class.

Behavior- As Professionals in training, and as adults, all students are expected to exhibit respectful conduct in the classroom. Students should participate in discussion, with an effort to produce an open conversation for other students, and to focus comments on course materials. Students may choose to be more formal or less formal to the professor, I will be forgiving about interactions with me, but Students must show utmost curtesy for their peers in the classroom, do not interrupt or interrogate others even if you disagree about interpretations, instead transform your concern or disagreement into an open question for the group, and direct it to the professor. Courtesy, civility, and respect at all times are necessary for open learning in a discussion based classroom. Students who act inappropriately will be warned, and further infractions will effect your participation grade or the student will be asked to leave the room.

ACADEMIC INTEGRITY, Honesty, and Plagiarism:

"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: <http://www5.njit.edu/policies/sites/policies/files/academic-integrity-code.pdf>Links to an external site..

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"

In the words of Professor David Hess: "Student-teacher relationships are built on trust. Students must trust that teachers have made appropriate decisions about the structure and content of a course, and teachers must trust that the assignments students turn in are their own." Additionally students are trusted to do readings, and to work to the fullness of their ability, in turn the teacher assumes the effort to explain and work with students to develop their understanding and skills. I take seriously my responsibility in this trust and require students to do so also. Along with Institute Policy, I do not tolerate any form of plagiarism: the copying of work not written by you (including cutting and pasting of e-texts). Any use of outside material must be cited in full. Any student caught plagiarizing will **fail this course and be reported to the Dean of Students**. Note that the requirement for citation of material applies equally to paraphrasing and sourcing ideas as well as to readings assigned in the class and outside readings. You should already be aware that the relationships between students and professors--as well as those between students and their classmates are built on trust. You, as students, trust that teachers have made appropriate decisions about the structure and content of the courses, and teachers must trust that the students do their own work and make efforts to complete assigned materials.

"Acts, which violate this trust, undermine the educational process." (Stanislawsky 2013). Suspected cheating or plagiarism will result in the incidents reporting to the Dean of Student Affairs and a temporary or permanent failing grade for this course. For example, quotation of information or inclusion of quotations of text, must be recognizably connected to a citation to the original

source, even unintentional errors are plagiarism. All direct or paraphrased quotations, citations of data or content from any source must be cited. Even close paraphrases require direct citation of the original source.

All forms of academic dishonesty are violations of the trust we share with one another and the respect we should give our professors, colleagues, and ourselves. Students should be actively working to develop clear and proper citation and attribution habits as parts of all coursework, it is a basic professional and ethical skill in our information centered world today. **Students who are unfamiliar with citation and attribution practices may seek help from the professor in office hours or from the writing center and should do so as early as possible in the process. No specific citation style is required, simply that you attempt to use any one style properly (APA, MLA, Chicago, etc... any are acceptable).**

Note: Plagiarism by error should be extremely unlikely because none of the essay assignments will be research papers requiring a plethora of outside sources. You are capable of keeping track of material for the the main paper that requires a total of 7 sources over three stages outside of assigned course readings and students are expected to be able to keep track of material and information from the course readings and these outside sources.

I am now required to include the following statement:

Gender Fair & respectful Language: Students in this course are expected to use gender fair and respectful language in their writing, and in the classroom. While we all make mistakes and need to take time to learn respectful and appropriate habits of dialogue, students must make an effort, and in particular must be careful when writing when revision and review of the material allows one to be held to a higher standard. Please remember, every time you use a masculine-oriented word to refer to people in general, the implicit effect, even if unintended, is to whisper: *women don't count*. **Please note that if the professor or a student makes you uncomfortable with their language you can speak to the professor or if more comfortable for you ask the Chairperson of the Department of Humanities to speak to the professor for you.** Concern should be towards respectful language in general, not only regarding gender, and students should try to avoid unintentionally ethnocentric, racist or biased language of other types. Intentional use of biased language, and or forms of communication that breech community norms may effect grades, both of classroom participation and of written work. Note- **Students who have Pronoun or Name preferences should inform the professor** and should expect that their identity and preference will be respected and used.

EXAM MAKE UP POLICY: With the move to the online exams and the flexibility of self-scheduling I consider there to be no reason for students to be unable to take them during the allowed time may have that even if they don't have OAR certification. Students who have conflicts should see the professor but will have to document a high degree of effort to meet the original dates in order to be considered. The exception is those students with Dean of student's office approved excuses.

"When a student invokes extenuating circumstances for any reason (late withdrawal from a course, request for a make-up exam, request for an Incomplete grade) the student should be sent to the Dean of Students Office. The Dean of Students will be making the determination of whether extenuating circumstances exist or not and will be notifying the instructor accordingly. Instructors should never request or accept medical or other documents from students; such documents need to be submitted by the student to the Dean of Students. Except for cases determined by law, an instructor **is not required** to accommodate student requests even when extenuating circumstances are certified by the Dean of Students; however, all efforts should be made to ensure a student-friendly environment."

COURSE OUTLINE/ASSIGNMENTS

[ALL READINGS WILL BE AVAILABLE ON THE COURSE Canvas] READINGS SHOULD BE COMPLETED and Recorded lectures listened to Before the first day of the week for which they are assigned..

WEEK 1 -Going over the syllabus and welcome to the class Sept 4-8th

Note- Introduction & Discussion of Syllabus; What we study in Ethics: Reflexivity and Intentional Decision Making

Sept 4 Labor Day. University Closed

Sept 5 **First Day of Classes**

Week 2 How Ethics are built into technology, How technological choices matter as ethical choices. Sept 11-15th

MONDAY Sept 11 Last Day to Add/Drop a Class

Sept 11 Last Day for 100% Refund, Full or Partial Withdrawal

Sept 12 W Grades Posted for Course Withdrawals

Sep 16 Rosh Hashana

Required Readings Due: 1) Mathes & gray “Engineer as Social Radical”, and 2) Winner “Do Artifacts have Politics?”;

Week 3-Formal ethics as a way of thinking & Cultivating Ideas of Ethics as Professional Practice. Sept 18-22nd

Monday Sept 18 Last Day for 90% Refund, Full or Partial Withdrawal - No Refund for Partial Withdrawal after this date

Sep 18 Ganesh Chaturthi

World Peace Day: 21 September

Required Reading Due: “Introduction to Ethical Reasoning’ by Donaldson & Werhane, and “Introduction to Engineering Ethics; Optionally students may additionally read the provided Selection” From Harris.

Week 4- Rules & Codes of ethics SEPT 25-29th

Monday Sep 25 Yom Kippur

Wed 27th- *Eid Milad ul-Nabi (Mawlid, Milad-un-Nabi)* celebrates the Prophet Muhammad's Birthday

Required Readings Due: 1) Rhiengold- Look Who’s talking (Amish and Cell Phones) Wired Magazine

Required Assignment: Look up your Codes of ethics, for prospective future careers, bring a copy to class.

Week 5-Practices of design and ethics in engineering applied commitments Oct 2nd – 6th

Monday Oct 2 Last Day for 50% Refund, Full Withdrawal

Friday Oct 6th Last Day of Sukkot

Required Reading: ‘Alternative Design Scholarship: Working toward Appropriate Design’ by Nieusma

Week 6- CHOICE- Mental Models, Options, Failure of trolley problem, need greater ‘complexity’ of thinking Oct 9-13th

Monday Oct 9th COLUMBUS/INDIGENOUS PEOPLE’S DAY

Friday Oct 13th

Oct 15 Navratri

Required Readings Due: 3 article Set- 1) Rennix & Robinson, The Trolley Problem, 2)- Millar - “You Should have a say in your robot Car’s Code of Ethics”, and 3) TBA. Discussion- Building ethics into things depends on our understanding and the tools or models of ethics we are used to change our understanding.

Week 7- MIDTERM EXAM WEEK OCT 16th-20th

First Class of week- Review of framework and concepts from first part of class, Second Class of the week- **“FIRST EXAM”**

PART II- CASE STUDIES

Week 8-First Case Study- The Ford Pinto “Madness” Business Technology and “Cost Benefit Analysis” Oct 23- 27th

MONDAY OCT Oct 23 Last Day for 25% Refund, Full Withdrawal

Oct 23 Dussehra

OCT 24 Tuesday United Nations Day

Required Readings: Selected Chapters of ‘The Ford Pinto Case- A study in applied Ethics’ by Birsch & Fielder,

Required Assignment: FIRST DEADLINE OF PROJECT- Submission of Proposal/Topic & Initial Research- Midnight 10/27

Week 9- Case: Tech enable large effects, “non-neutral” Computers & decisions- Great harm Oct-30th- Nov 3rd

Monday Oct 30th, Tuesday Oct 31st, Wed Nov 1st HAPPY HALLOWEEN

All Saints'/Souls' Day: 1-2 November

Dia de los muertos (Day of the Dead): 1-2 November

Required Reading: Selections from Death by Design By Eric Katz, Intro and 'IBM and the Holocaust' by Edwin Black

WEEK 10- Case: The Internet and Large Scale Transformation Past Datafication

Nov 6th- 10th

Monday November 6th

Nov 7 Election Day

Sat 11th Veteran's Day (Federal day off on Friday)

Nov 12 Diwali/Deepavali

Required Readings Due: 1) Selection from 'Code 2.0' by Lawrence Lessig, and 2) Intro. Chapter From Sherry Terkle.

Week 11- Case: Algorithms and Automation of Software, making the choices invisible in code. Nov 13- 17rh

Monday Nov 13 Last Day to Withdraw from Classes

Required Reading: #1 From Emerging Technology, "AI can be made legally accountable for its decisions"

MIT Tech; #2 Knight, Will, "Is technology about to decimate white collar work?" Business Insider; #3 Kraemer, Overd, & Peterson, "Is there an ethics to algorithms" #4 Sidell, "Can computers be racist?"

Week 12- THANKSGIVING WEEK Case: Medical technology & Ethics of Urgency & time

Nov 20-24

Required Readings Due: Reading #1 Excerpt from The Danger Within Us by Jeanne Lenzer; Reading # 2 Groeger, "How does the FDA monitor your medical implants" Reading # 3 – Fox, "Black children receive less pain meds" Reading #4 – Rosenthal, "Paying till it hurts, a case study in high costs" Reading #5 – "The Lesson of Epipens, why drug prices spike again and again"

Monday NOV 20th Classes meet as usual

CONVERSAIN DAYS Tuesday -Nov 21 Thursday Classes Meet

Wednesday Nov 22 Friday Classes Meet

Thursday Nov 23 - Thanksgiving Day, Thanksgiving Recess Begins. No Classes

Friday Nov 24th No Classes

Nov 26 Thanksgiving Recess Ends

Assignment: 2nd PROJECT DEADLINE- SUBMISSION OF ANNOTATED BIBLIOGRAPHY/OUTLINE & Current Draft work

WEEK 13- Liability as Substitute for Ethics in the Law.

Nov 27th- Dec 1st

Required Readings Due: Reading # 1 Moll, "Product liability law: What engineers need to know"; Reading # 2- Willats, "Death by reckless design: Need stricter criminal statutes engineering related homicides"; Reading #3 – Vardaro & Waggoner, "Statutes of Repose: The design professional's defense to perpetual liability"

Week 14- Dec 4th-8th

Kathika Deepam: 6 December is a festival of lights

FRIDAY Dec 8 Chanukah/Hanukkah (first day)/ Bodhi Day: 8 December – Day of Enlightenment

****THIS WEEK WILL BE FINAL EXAM REVIEW SESSION ****

Note- Any approved Late work is due, after Dec 10th, the only work accepted will be the Project.

WEEK 15—FINAL WEEK OF CLASSES & READING WEEK AND EXAM WEEK

Monday Dec 11th & Tuesday Dec 12th Classes Meet

**** We will have the In-class EXAM Sessions in our usual class time on Mon/Tues****

Students will not be taking the exam during Exam week!

Wednesday Dec 13 Last Day of Classes (Section

Thursday Dec 14 Reading Day 1

FRIDAY Dec 15 Reading Day 2

Dec 15 Last Day of Chanukah

Saturday Dec 16 Saturday Classes Meet

SUNDAY Dec 17 Final Exams Begin

SATURDAY Dec 23 Final Exams End

MONDAY Dec 25 Final Grades Due (Dec 25th- Christmas Day)