Spring 2017   Instructor: Prof. Davis
T/R 1:30-2:45   Email: taylordavis@purdue.edu
BRNG 1254   **Office Hours:** T/R 3:00-4:00, BRNG 7136
                                                    (or by appointment—send me an email)

PHIL 207: Ethics for Technology, Engineering and Design

This course is designed with the educational goals of increasing your understanding of professional and ethical responsibilities in national, international, and cross-cultural environments, helping to anticipate, understand, and navigate issues that will likely arise in your working lives as engineers, technologists and designers. Toward this end, reflection on your own engineering experience and its ethical ramifications is a fundamental component.

The main concern of this course will be with developing your ability to apply a general ethical framework to new and unique situations, as well as an understanding of the relation between engineering and contemporary issues in global, economic, environmental, and social contexts. The course covers how this framework should be constituted and also provides practice in applying such a framework to specific issues that arise in global engineering, technology and design contexts.

Together, these components work towards your development as not only a better engineer but also a more responsible global citizen. The course readings, case studies, and exercises are geared towards the development of a well-researched original case study, informed by your past experiences and future aspirations related to engineering, which you will present to the class.

Required Text
Global Engineering Ethics, by Heinz Luegenbiehl and Rockwell Clancy, in publication with Elsevier Press. Until the text is available for purchase, it will be available on the Blackboard website, along with any other, additional articles. Throughout the semester, you will also be required to consult news sources, academic articles, books, etc.

Course Requirements
The format is based on out-of-class reading, reflection, and research, and in-class discussion and exercises rather than primarily lectures. The primary focus will be discussions of the assigned materials and completion of corresponding exercises related to the course readings and case studies. Thus, if you are to contribute to class discussions in a meaningful way, it is important that you do the assigned readings before class. Please check Blackboard regularly to keep up with assignments and other information. It is your responsibility to do so.

A. Participation, Readings and Exercises (10%)
Class attendance is required. However, participation consists in not only attendance but also, for example, answering questions, asking questions if the material is unclear, etc. You will be responsible for all the material covered in class, including lecture content, schedule and policy changes, and other general information. (TIP: Be sure to ask for the contact information of several classmates so you can contact them about what you missed.) You should read the

assigned course material before coming to class, and be ready to give a brief synopsis of the content of the material.

B. End of Chapter Reflection Questions (10%)
At the conclusion of each chapter, you will be asked to answer two or three reflection questions. These questions will be specific to the chapter under consideration and they will not have a definite answer. Often the questions will ask you to respond to counterexamples or objections to the chapter's content. Answers are typically between three to five sentences, though you are free to write more if you wish. These questions will be graded on a 3-point scale, with 1 point awarded for attempting the exercise in earnest, 2 points being awarded for a good short answer, and 3 points being awarded for an exceptional short answer. Answers will be submitted on Blackboard.

C. Short Case Studies (30%)
You'll be responsible for researching, writing, and submitting (online) three short case studies – 500-1,000 words – about events/topics related to the content of a particular unit covered during the course. You should utilize at least three *reputable* sources in writing up each case, using twelve-point font, APA style. (NOTE: Wikipedia's not a bad place to start learning about a new topic, but isn't itself a reputable source. In some cases – especially in those of new technologies and people's perceptions of and experience with those technologies – blogs can offer a lot of information/be a useful resource. You can use and refer to blogs, although they should not comprise more than one of your three reputable sources.) Your summary will simply tell a story of what happened.

    For your case studies, you can write about specific events, more general topics, or some combination of the two. For example, you might discuss some particular event regarding video games, or video-game technology, as a means of discussing their broader ethical/social implications.

D. Final Case Study (50% = 20% written report; 20% in-class presentation; 10% abstract)
The largest portion of your grade will be based on the development and presentation of a final case study – 2,500-3,000 words. Based on your past experiences and future aspirations related to engineering, you will research an actual case. Again, you should utilize at least three reputable sources in writing up your case. Papers must use 12-point font, APA style, and will be submitted on Blackboard. Late papers will be penalized 7 points per day.

    You will also be responsible for a 15- to 20-minute oral presentation of the case – 10 minutes to present the case and 5-10 minutes to discuss the case with the class. The presentations will be presented at a colloquium during the last week of class, details to be determined. Presentations should not consist of just reading something you've written beforehand. Powerpoint is the most natural medium, but any other media for interesting visual aid is fine as well. Your grade on these will be determined as much by content as form. You will be responsible for generating class discussion by posing appropriate questions. Further instructions will be given during the course of the semester.

Evaluation:

Participation (attendance, readings, exercises):		10%
Reflection Questions:		10%
Short Case Studies:		30%
Final Presentation:		50%
Written Report:	*20%*	
Presentation:	*20%*	
Abstract:	*10%*	

Grades will be assigned according to this chart:

Final average	Course grade	Final average	Course grade
98% and above	A+	77% and above	C+
93% and above	A	73% and above	C
90% and above	A-	70% and above	C-
87% and above	B+	60% and above	D
83% and above	B	59.9 and below	F
80% and above	B-		

Any student who has a disability that may prevent him or her from fully demonstrating his or her abilities should contact me as soon as possible, so we can discuss accommodations necessary to ensure full participation, and to facilitate your educational opportunities.

Academic Integrity
All work handed in for this class must be your own. The inclusion of any data, words, or ideas from any other source must be acknowledged, and that source must be given proper credit. Failure to do so will be considered plagiarism. For this course, plagiarism is defined as:

a) The use of any passage of **three words or longer** from another source without proper attribution. Use of any phrase of three words or more must be enclosed in quotation marks ("**example, example, example**"). The source of the material must be identified in the text, by a parenthetical reference, footnote, or endnote.

b) Use of material from an un-cited source, making very minor changes (like word order or verb tense) to avoid the three-word rule.

c) Inclusion of **facts**, **data**, **ideas,** or **theories** originally thought of by someone else, without giving that person (organization, etc.) credit. You must identify the source, whether in an endnote, footnote, parenthetical reference, or in the text.

d) **Paraphrasing** ideas or theories (writing them in your own words) without giving the original thinker proper credit.

e) Allowing another person to make extensive changes to your paper. This is considered "unauthorized aid." (Allowing a friend to check your work for minor errors is fine.)

Please note that because **even partially plagiarized assignments will receive a failing grade**, it is in your best interest to do your work on your own. Even assignments that you have struggled with will probably result in a grade higher than that of plagiarized work. If you have any questions about what constitutes or how to avoid plagiarism, please do not hesitate to ask.

Courtesy:
Please foster a learning atmosphere by respecting classmates and the instructor. Students are asked to turn off their cell phones when class begins. Laptops are allowed *only* for taking notes; virtually anything else will distract the people behind you.

Emergencies:
In the event of a major campus emergency, course requirements, deadlines and even grading percentages are subject to change. Information about emergency changes in the course can be obtained by consulting the course website, or, if necessary by contacting me via email or phone. Purdue's Emergency Procedures Handbook and other important emergency planning information are available online at: http://www.purdue.edu/emergency_preparedness/

Assignments, Readings and Schedule

Topic	Reading	Weeks
Introduction and Overview	Introduction	1-2
General introduction		
What is Ethics; why Ethics for engineers?		
The global perspective		
The problem of theory		
The role of reason		
Role responsibilities		
Case studies		
Working with Cases	Chapter 2	3
Why study cases?		
Steps for case analysis		
Sample Analysis		

The Toshiba case

ABSTRACTS DUE: Thursday, March 9

    Normative ethical relativism

    The nature of values

    Values and engineering

    Principles for engineering ethics

    Autonomy exercise

    The concept of autonomy

    Autonomy and engineers

    The duty of loyalty

    Employers' legitimate authority

    Faithful agency

    Conflicts of interest

    Engineers and dissent

    Whistleblowing

WRITTEN REPORTS DUE: Thursday, April 13

    Two cultures

    Engineers' relationship with the public

    Ethics and the law

    The nature of rights—moral rights or human rights?

Employee rights

Special rights of engineers, technologists and designers

Enforcement of rights

FINAL PRESENTATIONS: April 25, 27