

ETHICS AND ENGINEERING

ECE/PHILOSOPHY 316

SPRING SEMESTER

2012

SYLLABUS

As a course in *Advanced Composition*, we will be exploring in our studies throughout the semester the historical roots of the English language. The word “syllabus” is from the Modern Latin *syllabas*, the result of a misprint in a 15th century edition of Cicero for *sittybas*, plural of *sittyba*, meaning a “list” (originally a piece of parchment used as a label for a papyrus roll). The term has now taken on the meaning of “a summary or outline containing the main points, especially of a course of study” (*Webster’s New World Dictionary of the American Language* [New York: World Publishing Co., 1953, page 1476]).

As a course also in *Philosophy*, it is fitting to note that the title of Plato’s *Republic* in Greek is *πολιτεία*,— transliterated as *politeia* — meaning the condition and rights of a citizen; hence, citizenship. The English title of the *Republic* has its origin in Cicero’s translation of the Greek *politeia* into Latin as *res publica* (*res*, thing + *publica*, feminine of *publicus*, public). The term *republic*, however, does not convey the equivalent connotation in English that *politeia* had for Plato (see the beginning reference note to Book I of Plato’s *Republic*, translated by Alan Bloom [New York: Basic Books, 1968; 2nd ed. 1991, 439–40, and the article by Richard Talaska, “Philosophical Reasoning in Ethics and the Use of the History of Philosophy” in *Teaching Philosophy* 20 [June 1997]:121–41).

Understanding another person — whether it be Plato or a close friend — is a complex undertaking. During the course of the semester, we will be in conversation with many different authors, some of whom will become close friends. As you listen to these authors, and engage them in dialogue through the instrumentality of the written word, keep your dictionary close at hand, for the dictionary is a wellspring of wisdom and an important lexical and historical resource that will open new windows and doors of understanding.

Instructor

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Course Home Page

The course home page can be accessed through the “Ethics CORE” online resource center for professional and research ethics in science and engineering, supported by the National Science Foundation, with its administrative base at the University of Illinois in Urbana-Champaign.
<http://nationalethicscenter.org>

Classes

Section E3: Tuesdays and Thursdays, 11:00 – 12:20, Room 329 Gregory Hall

Section E4: Tuesdays and Thursdays, 2:00 – 3:20, Room 57 Everitt Laboratory

Prerequisites

Junior standing and Rhetoric 105. Junior standing means that the course will be taught at the level of an upperdivision course in Advanced Composition and Philosophy.

Credit

3 hours. ECE/Philosophy 316, “Ethics and Engineering,” satisfies University General Education requirements for Advanced Composition and Humanities and the Arts (Historical and Philosophical Perspectives).

Course Objectives

- To read and think critically
- To develop moral reasoning skills
- To improve writing skills in an engineering context
- To understand multiple perspectives and to respect others of diverse persuasions
- To study the fundamental structure of human personhood, the grounding of moral action, and the development of moral character as the precondition of all integral work in a profession

Required Texts

- Charles E. Harris, Michael S. Pritchard, and Michael J. Rabins, *Engineering Ethics: Concepts and Cases*, 4th ed. (Belmont, CA: Wadsworth, 2009).
- A three-volume integrated set of assigned readings — *Volume 1: Introduction*, *Volume 2: Normative Ethical Theories*, *Volume 3: Windows into Applied Ethics* — available in the textbook department at the Illini Union Bookstore.
- William Strunk and E. B. White, *The Elements of Style*, 4th ed. ([1935], 1959, 1972, 1979, 2000) — a simple, classic statement of basic principles of English Composition.

Electronic Reserves

Additional course materials will be available through the University of Illinois Electronic Reserves (<http://www.library.illinois.edu/ereserves/>). See in particular *A Manual for Writers* by Turabian, *The Craft of Research* by Booth, Colomb, and Williams, and selected portions of *Style: Lessons in Clarity and Grace* by Williams.

Important Reference Works

A good dictionary and grammar are essential tools that will assist you greatly in your use of the English Language. *Webster's Dictionary* in an unabridged form is an excellent reference work that provides clear definitions and an etymological history of each word. The *Oxford English Dictionary* can be viewed online through the University Library home page under *Research Tools, Online Research Resources* (www.library.illinois.edu). From this site, you can also consult the *Oxford American Thesaurus of Current English*. For a comprehensive English grammar, see the *Oxford English Grammar* by Greenbaum.

Other Sources

For a review of the fundamental principles of writing, with an important section for “Multilingual Writers,” see *A Writer's Reference*, seventh edition (2010), by Hacker and Sommers.

Reflection Papers and Assigned Readings

Reflection papers over the assigned readings will be an important part of your preparation for class on days in which there are no major writing projects due. These papers will crystallize your understanding of the readings and will prepare us all for our discussion together in class; they will also help you learn the art of clear and concise writing — a critical skill which is developed through consistent and regular practice. Your papers will be read and evaluated (check or check plus/minus), but not graded.

Each reflection paper is to be *typed, double-spaced, and a full one-page (or more) reflection* upon the assigned readings for the day. Type your *name and submission date* on a *single line* as the header of your paper. Begin the body of the paper on the next line, using twelve-point font and one-inch margins. View your daily reflection papers as a progressive series of cumulative home-work assignments.

Reflection papers will not be due the days on which you submit a draft or final version of a major writing assignment — namely, the mission statement, the three response papers, and the steps leading up to the final research paper (the research topic, the bibliography and outline, and the complete draft). In-class questions over the required readings may be given on the days for which there are no reflection papers.

You are responsible for all of the assigned readings, and on the daily attendance sheet you will indicate the readings that you have completed; but use your reflection papers to focus your attention on a portion of the readings that was particularly significant to you. Briefly summarize the substance of *the author's position* and then reflect upon the meaning and significance of the reading, developing *your own position* with well-reasoned argumentation in dialogue with the author. The reflection papers, together with your completion of the assigned readings for each class period, will count toward a significant portion of your final course grade.

Personal Mission Statement

Graded writing assignments for the semester will begin with a substantive three-page paper in which you construct your own mission statement. The draft must be submitted electronically in Microsoft Word format before class begins on January 31. A hard-copy of the final version, along with a printed copy of the evaluated initial draft, will be due on April 26.

Response Papers

During our journey this semester, you will write three response papers, each consisting of a complete draft and a final version. The draft will be given substantive comments, but only the final version will be graded. For full credit, a complete draft must be submitted on time and the draft included along with the final version. A grading rubric will accompany each assignment.

All papers must be double-spaced, in 12-point type, with one-inch margins. Include a separate title page, with your name, the course, the professor and the submission date. The drafts of your response papers must be submitted electronically before class begins on the required due date. The final version must be submitted in hard-copy format, together with a printed copy of the evaluated electronic draft.

Due Dates for Response Papers:

Response Paper #1: *Article Analysis* (3 pages)

A complete draft is due February 2; the final version is due February 9.

Response Paper #2: *Case Study* (3 pages)

A complete draft is due February 16; the final version is due February 23.

Response Paper #3: *Normative Ethical Theories* (6 pages)

A complete draft is due March 15; the final version is due March 29.

Research Paper

As the final writing project of the course, you will complete a research paper of nine pages or more in length. You will carefully explore in your paper the ethical implications of a topic of your choice using the Notes-Bibliography citation format of the *Chicago Manual of Style* as outlined in Turabian, *A Manual for Writers*, chapters 15–17 (see the course electronic reserves under *Chicago Manual of Style*). The research paper will follow the same procedural steps of submission — namely, electronic draft and hard-copy final version.

At the end of the semester, you will also give a five-minute presentation of your research project in Power Point format, followed by questions from the class. The research paper and in-class presentation function together as the final examination for the course.

Due Dates for Research Paper:

Research Topic	February 14
Bibliography and Outline	March 1
Complete Draft	April 5
Peer Review	April 12
Final Version	April 19
Project Presentations	April 19, 24, 26, May 1

Course Grading

Attendance and Class Participation	10%
Reflection Papers and Assigned Readings	20%
Writing Skills Assessment	5%
Mission Statement	5%
Response Papers	30%
Research Paper	25%
Research Project Presentation	5%

Plus and Minus Scale

93 – 100 %	A
90 – 92.9 %	A-
87 – 89.9 %	B+
83 – 86.9 %	B
80 – 82.9 %	B-
77 – 79.9 %	C+
73 – 76.9 %	C
70 – 72.9 %	C-
67 – 69.9 %	D+
63 – 66.9 %	D
60 – 62.9 %	D-
0 – 59.9 %	F

Attendance and Class Participation

Daily attendance is required and will be recorded each day. No absences will be excused — except family emergencies and health related absences (with written medical approval). All other absences (including career path interviews) require advance notification.

Your attendance and participation in class will be a significant factor in determining your final grade. The synergy of the course hinges upon your active engagement with your colleagues in exploring the fundamental ideas that we will be studying throughout the semester.

Classroom Guidelines

- Class will start promptly at the beginning of the University scheduled time for each section. Make every effort to be at your desk — ready to work — five minutes before class begins. Late attendance will be noted.
- Bring with you to class each day the texts of the assigned readings as specified on the daily schedule. Careful textual reading and informed discussion together in class will be essential to the internal dynamics of the course. The importance of this requirement cannot be overemphasized.
- Turn off all personal electronic devices — including cell phones and laptop computers — before the beginning of class. Refrain from eating and from reading non-related course materials during class.
- As class begins, have ready at hand your reflection paper on the assigned readings. For days on which there is a major writing project due, be prepared for a brief in-class written reflection on the readings.

Review of Paper Submission Guidelines

All reflection papers are to be submitted in hardcopy format on the day they are due. All drafts of the major writing projects must be submitted electronically before class on the specified due date. Final versions of the mission statement, the three response papers, and the research paper must be in hardcopy, submitted together with a printed copy of the evaluated draft.

The University guidelines for Advanced Composition require twenty to thirty pages of revised writing. Our course targets a median range of twenty-four pages (twelve pages total for the three response papers), nine pages for the research paper, and three pages for the final mission statement). All of the major writing assignments must be the complete number of pages — including both the draft and the final version — in order to fulfill the University requirements. An incomplete draft will be given a ten percent [10 %] reduction in the final grade for the paper. All papers must be submitted on time. Late papers, regardless of circumstances (such as printer or computer malfunction), will also receive an automatic ten percent [10 %] reduction in the assigned grade. The late penalty for papers applies to the draft as well as the final version.

Academic Integrity

Violations of the standards of academic integrity will result in appropriate disciplinary action.