Engineering Ethics  
PHIL/ENGR 482, Spring 2005  
M & W, 10:20-11:10 and 1:50-2:40, Zach. 102

Text: *Engineering Ethics: Concepts and Cases*, 3rd edition, Harris, Pritchard, and Rabins. The references in the syllabus are to this book. Notes will be available on a web page specified in class. The notes are a valuable study aid in topical form, but not a substitute for attending class or reading the textbook.

**Instructor Responsibility for Lectures**
H=Harris, E=Engineering Instructor

**Course Objectives:**

- Know the ethical standards of the engineering profession.
- Know the requirements of the Texas Engineering Practice Act
- Know some of the types of ethical/professional problems that can confront practicing engineers.
- Know some of the issues raised by the impact of science and technology on society.
- Know some methods for analyzing and resolving problems mentioned in the previous two bullets.
- Improve skills in effective communication, both oral and written, especially with regard to ethical and professional issues in engineering.

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<td>19</td>
<td>Personal and Professional Ethics: What’s the Difference? (Ch. 1) (H)</td>
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<td>21</td>
<td>Discussion Sections: Personal and Professional Ethics</td>
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<td>24</td>
<td>Factual, Conceptual, Application, and Moral Issues (Ch. 3, 3.1-3.7) (H)</td>
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<td>26</td>
<td>Line Drawing and Creative Middle Ways (Ch. 3, 3.8-3.10) (H)</td>
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<td>31</td>
<td>“Citicorp’s Secret Past” (VCR) (E)</td>
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<td>02</td>
<td>Communication in Engineering (E)</td>
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<td><strong>First Major Writing Assignment: Assigned</strong></td>
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<td>04</td>
<td>Discussion Sections: Line Drawing and Creative Middle Ways, Cases 10, 30, 39, 41.</td>
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<td>07</td>
<td>Professionalism and Responsibility: The Columbia Accident (E)</td>
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09  Professionalism and Responsibility (Ch. 2) (E)

11  Discussion Sections: Professionalism and Responsibility, Cases 3, 13, 19, 35. First Major Writing Assignment: Due

14  Technology and Society (H)

16  Bovay/ChevronTexaco Lecture: Dr. Helen Nissenbaum

18  Discussion Sections: First In-Class Writing Assignment

21  Moral Theories: Utilitarianism (Ch. 4, 4.1-4.4) (H)

23  Moral Theories: Respect for Persons (Ch. 4.5-4.8) (H)
    Second Major Writing Assignment: Assigned

25  Discussion Sections: Utilitarianism, Cases 24, 43.

28  Moral Theories: Continued (H)

Mar. 02  Engineering Codes and Engineering Registration (PP, 365-379) (E)

04  Discussion Sections: Review for Mid-Term Exam

07  Mid-Term Exam

09  Integrity, Honesty, Conflicts of Interest (Ch. 6) (E)

11  Discussion Sections: Respect for Persons (Cases 32, 34)
    Second Major Writing Assignment: Due

21  International Ethics (Ch. 10) (H)

23  International Ethics (Continued) (H)

25  Reading Day (No class)

28  Risk and Safety in Engineering (Ch. 7) (E)
    Third Major Writing Assignment: Assigned

30  Risk and Safety in Engineering, Continued (E)

Apr. 01  Discussion Sections: Professional Obligations Regarding the Environment (Sections 9.7-9.8)
04 Engineering and the Environment (Dr. Holtzapple, Chem. Engineering)(Ch. 9)

06 Engineering and the Environment (Dr. Holtzapple)

08 Discussion Sections: International Ethics (Case 31, Special Cases)

Third Major Writing Assignment: Due

11 Computer Ethics (Ch. 5) (Dr. Walter Daugherity, Computer Science)

13 Computer Ethics, Continued (E)

15 Discussion Sections: Second In-Class Writing Assignment

18 Engineers as Employees (Ch. 8) (H)

20 Race and Gender Issues (Mr. James Chandler)

22 Discussion Sections: Employee Issues and Race and Gender Issues (Cases 29, 55)

25 Promoting and Enforcing Ethics (Ch. 11) (E)

27 Review

29 Discussion Sections: Review

May 03 Discussion Sections: Review

Final Exams: Morning Lecture, Tuesday, May 11, 8-10 A.M.
Afternoon Lecture, Tuesday, May 11, 3:30-5:30 P.M.

Faculty

Office Hours: M&W, 8:30-12:30 e-harris@philosophy.tamu.edu

Prof. Ray W. James, 204 Zach. W: 845-7265, Office Hrs.: TR 1:30-2:30. W: 2-3 r-james@tamu.edu, http://ceprofs.tamu.edu/rjames

Prof. William H. Marlow Zach. 130C (enter through 129) W:845-2271
Office Hrs: MWF 10-11 w-marlow@tamu.edu
Grading

Mid-Term and Final Exams: 20% each. Total: 40%
Three Major Writing Assignments: 10% each. Total: 30%
Two In-Class Writing Assignments: 5% each. Total: 10%
Discussion Sections (attendance, presentations, participation, pop quizzes, etc.): 15%
Attendance in Lecture: 5%

Attendance, Mid-Term Exam, Pop Quizzes, and Discussion-Section Writing

Assignments: University excused absences will be recognized for lecture and discussion sections. Other excuses will be given consideration on an individual basis. Quality participation in the presentation of cases and in discussion in the Friday discussion sections is important.

Mid-Term and Final Exams: The Mid-Term and Final Exam will focus on both lecture and textbook material. Some material from the book does not appear in the lectures and some lecture material does not appear in the book. Make sure you study both.

Essay Exams: There will be three out-of-class essay assignments during the semester, counting 10% each, and two in-class essay assignments, counting 5% each. The out-of-class essays should be 3-4 pages in length (double-spaced, typewritten), and the in-class essays should be 1-2 pages in length (handwritten). Writing quality as well as content will be evaluated.

Missed or Late Work: Such work will be excused for University-recognized reasons. Other excuses will be given consideration on an individual basis. You should notify your instructor before the missed class if at all possible. Make-up exams should be arranged with your TA. Pop Quizzes missed because of excused absences missed because of excused and in-class writing assignments missed because of excused absences will not be made up. They will simply not figure in your quiz average.

Scholastic Integrity: “An Aggie does not lie, cheat, or steal or tolerate those who do.” Students are expected to understand and abide by the Aggie Honor Code presented on the web at: http://www.tamu.edu/aggiehonor. No form of scholastic misconduct will be tolerated. Academic misconduct includes cheating, fabrication, falsification, multiple submissions, plagiarism, complicity, etc. These are more fully defined in the above web site. Violations will be handled in accordance with the Aggie Honor System Process described on the web site. Scholastic dishonesty can result in failure of the course. One form of scholastic dishonesty that is not well understood is plagiarism. As commonly defined, plagiarism consists of passing off as one’s own ideas, words, writings, etc., the work of another. In accordance with this definition, you are committing plagiarism if you copy the work of an person and turn it in as your own, even if you have the permission of that person. Plagiarism is a very serious offense. In the professional world, plagiarism destroys the trust among colleagues, without which research cannot safely be
communicated. Consult the latest issue of the Texas A&M University Student Rules, under the section “Scholastic Dishonesty,” for further comments on this issue.

This caution against plagiarism does NOT rule out discussing with others the case analyses or other assignments ahead of time. In fact, you are encouraged to discuss these issues with anyone. This can be part of the learning experiences in this course. You should not, of course, simply turn in a paper written by another person. This is plagiarism.

**Writing-Intensive Course:** Studies show that engineers spend over half their time in communication. Hence, practice in communication is an important part of an engineer’s professional education. In the light of this, the course has been designated as writing-intensive. Written assignments count 40% of your grade. Critical thinking skills are essential to the recognition, evaluation, and resolution of ethical issues, and writing about these issues hones critical thinking skills as well as improves communication skills. Your grade will be strongly influenced by the quality of your written assignments.

**The Writing Center:** If you need help with writing, the Undergraduate University Writing Center is the place to go! They will help you with virtually every aspect of a writing assignment—short of writing it for you! They provide one-on-one writing assistance, including help in creating a rough draft, grammar, organization, citation, and revision. Each session lasts approximately 30-45 minutes and begins on the hour. If you are more than five minutes late for an appointment, your forfeit your appointment time. Come prepared. Bring a copy of your assignment if you have one, and think about what you want to work on at the Center. The Center is located in the Evans Library, second floor, room 121B. The phone is 458-1455. The web address is [http://uwc.tamu.edu](http://uwc.tamu.edu). The web page is a good source of information for your writing needs. You can even get feedback from a consultant online at [http://wrc.tamu.edu/apptcal/student](http://wrc.tamu.edu/apptcal/student). You can also print hand-outs on virtually every aspect of writing from [http://wrc.tamu.edu/handouts/](http://wrc.tamu.edu/handouts/). The hours of the Center are Monday-Thursday, 10:00 A.M. to 2 P.M.

**Americans With Disabilities Act (ADA) Policy Statement:** The ADA is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring accommodation, contact the Department of Student Life, Services for Students with Disabilities, Koldus 126, or call 979-845-1637.

**Turnitin.com:** You may be asked to submit your three out-of-class written assignments to Turnitin.com before giving your essays to your TA. This system, subscribed to by the University, protects you, the honest student, from students who would turn in the same essay to different TA’s or otherwise engage in plagiarism. Please do not feel offended by this requirement. It protects YOU. Further instructions for submitting this work will be given with the first major written assignment.