

ECE 409

Engineering Ethics

Overview

Course Catalog Description: Topics in engineering practice, licensing, ethics, and ethical problem-solving. Cases illustrating ethical issues facing practicing engineers. One lecture and one recitation per week for eight weeks.

Prerequisites: Senior standing

Textbook: C. B. Fleddermann, *Engineering Ethics*, 3rd ed., Prentice Hall, 2008.

Class Goals: Students learn the professional responsibilities associated with engineering practice, and see how ethical problem solving techniques can be applied to ethical problems arising in engineering practice.

Course Coordinator: C. B. Fleddermann

Table 1: Objectives, Implementation, and Assessment

Outcomes		Implementation	Assessment	A	B	C	D	E	F	G	H	I	J	K
1	Understand what a profession is, and understand the professional nature of engineering.	1 hour lecture in week 1.	Writing assignment #1						X					
2	Understand what a code of ethics is and how it can be used.	1 hour lecture in week 3	Writing assignment #2						X					
3	To understand the theoretical underpinnings of professional ethics.	1 hour lecture in week 4	Writing assignment #3						X					
4	To learn how to apply ethical problem solving tools to real and hypothetical ethical problems.	1 hour lecture in week 5	Writing assignment #4						X					
5	To be sensitized to the potential ethical issues involved in engineering practice.	1 hour lectures in weeks 2, 6, 7, and 8, and 1 hour discussions in weeks 1-8	Participating in discussion, and writing assignments 2-4						X					

Table II: Outcomes and Assessment

General expectations:

Homework (Writing assignments): Expect 80% of students to complete each assignment with a grade of 8/10 or better.

Participation Expect 50% of students to get at least a 75% score on participation in discussions.

Quizzes No quizzes

Exams No exams

Outcomes		Assessment Tool
O1	Understand what a code of ethics is and how it can be used.	Writing assignment #1
O2	To understand the theoretical underpinnings of professional ethics.	Writing assignment #2
O3	To learn how to apply ethical problem solving tools to real and hypothetical ethical problems.	Writing assignment #3
O4	To be sensitized to the potential ethical issues involved in engineering practice.	Class participation in discussions.