

Course name	ECE 40100 Engineering Ethics and Professionalism (1 cr.)
Credit and contact hours	(1 cr.) Class 1
Course coordinator's name	Brian King
Textbook	<i>Engineering Ethics: An Industrial Perspective</i> , Gail Baura, Academic Press, 2006, ISBN# 9780120885312
Course information	<p>ECE 40100 Engineering Ethics and Professionalism (1 cr.) P: Senior Standing. Class 1. Some ethical, social, political, legal, and ecological issues that practicing engineers may encounter.</p> <p>Prerequisites/ Co-Requisite P: None C: Senior Standing</p> <p>Required, Elective, or Selected Elective: EE Required, CE Required</p>
Goals for the course	<p>Upon successful completion of the course, students should be able to</p> <ol style="list-style-type: none"> 1. Demonstrate a basic understanding of ethical principles such as moral autonomy, definitions of ethics and morality, ethical dilemmas, and truthfulness. [4] 2. Demonstrate an understanding of how a code of ethics can help an engineer work ethically and to determine the right actions. [4] 3. Demonstrate an understanding of models of right and wrong (utilitarianism, duty ethics, rights ethics, and virtue ethics) and their use in determining right actions. [4] 4. Demonstrate a working knowledge of a process for resolving ethical dilemmas. [4] 5. Demonstrate a working knowledge of workplace ethics, including issues such as whistle blowing, confidentiality, conflict of interest, and intellectual property. [4] 6. Demonstrate an understanding of the value of teamwork and the ability to function effectively in diverse teams. [5] 7. Demonstrate an understanding of the impact of engineering decisions on the global environment, including issues on cultural differences, safety, environmental protection, technology transfer, and infrastructure. [4] 8. Demonstrate knowledge of contemporary issues, particularly issues that present conflicting points of view with an ethical component. [4] 9. Demonstrate an understanding of engineering as a profession and engineers as professionals. [4]
List of topics to be covered	<ol style="list-style-type: none"> 1. Meaning of ethics and engineering ethics (1 class) 2. Ethical theories as tools in assessing ethical dilemmas (1class) 3. Codes of ethics of engineering societies as guides in resolving ethical dilemmas (2 classes)

	<ol style="list-style-type: none">4. Conflict of interest (2 classes)5. Intellectual property, patents, trade secrets, confidentiality (2 classes)6. Whistle blowing (2 classes)7. Employee Rights (1 class)8. Global issues (ethical issues for multinational Corporations, environmental ethics, ethics of weapons development, etc.) (2 classes)9. Discussion of cases from NSPE Opinions of the Board of Ethical Review and other case studies (2 classes)10. Exam (1 class)
Syllabi approved by	Brian King
Date of approval	8/27/2021