

Professional Ethics

Course Code	Credit Hours
HU-222	2-0

Course Description

In general, Ethics is both an academic “subject” and a thoughtful way of doing things. Theoretical Ethics is that branch of Philosophy concerned with determining what is right (with regard to principles and actions) and what is good (what ends or ideals are worth pursuing and what values are worth holding). Practical Ethics is the art of figuring out how to make things better rather than worse with regard to concrete or actual situations. Professional Ethics is a type of applied ethics as such; it is concerned with principles applied and actions taken in the workplace and the boardroom. At the same time, since engineering practice is inseparable from the rest of human life, Ethics has to take account of the well-being of human society and the natural environment.

Text Book:

“**Ethics in Engineering**” 3th edition, by Mike W. Martin, Roland Schinzinger, McGraw-Hill, New York,

Reference Book:

1. Fundamentals of Engineering Economics, 3rd ed., by Chan S. Park
2. “Engineering Ethics: Concepts and Cases”, 4th edition, by Charles E. Harris, Michael S. Pritchard, Michael J. Rabin’s, Wadsworth, 2008.
3. The Seven Habits of Highly effective people by Stephan r. Covey
4. Principle Centered Leadership Stephan r. Covey
5. “Ethics in Engineering” 2nd edition, by Mike W. Martin, Roland Schinzinger, McGraw-Hill, New York

Prerequisites :

Nil.

Assessment System for Theory

	Without Project (%)	With Project/Complex Engineering Problems (%)
Quizzes	15	10-15
Assignments	10	5-10
Mid Terms	25	25
Project	-	5-10
End Semester Exam	50	45-50

Teaching Plan

Theory:

Week	Topic Covered	Reading Assignment/ Homework/Quiz	CLO No.	Assessment Methodology
1	What is Philosophy Engineering Ethics, Ethical concepts, Types of Philosophies and its linkage with ethics Challenges involved in decision making Group Formation and Class Exercise 1 (Trust)	Ref 1 Chapter 1	1	Assignments, Quizzes, MSE, ESE
2	Moral Dilemmas, Moral Autonomy, Kohlberg's & Gilligan's Theory Moral Development Case Study Heinz Dilemma. Semester Project Brief	Ref 1 Chapter 1 Assignment 1	1	
3	Ethics Vs Morality Dimensions of Engineering Hypothetical and Categorical Imperatives Potential Moral Problems Semester Project Topic Selection	Ref 1 Chapter 2 Quiz 1	1	
4	Profession and Professionalism Ethical Dilemmas Steps in Resolving Ethical Dilemmas	Ref 1 Chapter 2 Assignment 2	2	

	How to Be Ethical			
5	Conflict of Interest Code of Ethics , Roles and Limitations Class Exercise 2 (Applying Code of Ethics to a situation) Guidelines about Presentation Rubrics	Ref 1 Chapter 3 Quiz 2	2	
6	Moral Reasoning Branches of Ethics Class Exercise 3 Trolley Problem, Doctors dilemma Descriptive Ethics	Ref 1 Chapter 3 Assignment 3	2	
7	Meta Ethics Normative Ethics Applied Ethics Duty/Virtues/Utilitarianism and Right Ethics Roles and Limitations	Ref 1 Chapter 3 Quiz 3	2	
8	Designing Aluminium Cans Engineering learning from Design Evolution Dimensions of Ethics Case Study : The Ingenious Design of the Aluminium Beverage Can (Video and Class Discussion)	Ref 1 Chapter 4	2	
9	ESE			Assignments, Quizzes, MSE, ESE
10	Responsibility Citicorp Structural Design Case Study Senses of Responsibility Case Study "How Manhattan escaped tragedy"	Ref 1 Chapter 4 Assignment 4	2	
11	Assessment of safety and risk, Design considerations, uncertainty Class Exercise (Prospect Theory) Risk-benefit analysis, Safe-exit and fail-safe systems	Ref 1 Chapter 4 Quiz 4	2	
12	Responsibility to Employers	Ref 1 Chapter 5	2	

	Collegiality Respect for Authority	Assignment 5		
13	Rights of Engineers Whistle-blowing, case studies on professional behaviour/policies on the job Loyalty and Discrimination Case study (Monster Inc) Class Exercise with Q&A (Discussion)	Ref 1 Chapter 6 Quiz 5	2	
14	Engineers as Managers Consultants and Leaders Engineers as Expert Witnesses and Advisers Moral Leadership	Ref 1 Chapter 8	2	
15 & 16	Semester Presentations and Guest Lecture : Engineering by Choice		3	
17	ESE			

Practical: Nil