University of Management and Technology

Course Outline

Course code: ET 215 **Course title:** Professional Ethics

Program	BSc AMET
Credit Hours	3
Duration	One semester
Prerequisites	Nil
Resource Person	Beenish Batul
Counseling Timing (IAS Office)	Monday 14:00 to 17:00 Thursday 14:00 to 17:00 Friday 14:00 to 17:00
Contact	beenish.batul@umt.edu.pk

Chairman/Director signature……

Dean's signature…… Date……

Course Learning Outcomes (CLOs):

CLO 1: ~~Identify and~~ describe the concepts related to personal and professional ethics in the context of engineering; ~~understand the importance and context of codes of ethics~~. (C1)

CLO 2: Apply ethical theories to identify methods for solving ethical problems in engineering; ~~analyze rights and responsibilities of engineers, and conflicts of interest.~~ (C3)

~~CLO 3: Understand concepts of risk and safety in the context of engineering ethics. (C2)~~

~~CLO 4: Communicate issues related to a broad spectrum of engineering ethics with clarity. (C3)~~

Mapping of CLOs to PLOs:

CLOs/PLOs	**CLO 1**	**CLO 2**	**~~CLO 3~~**	**~~CLO 4~~**
PLO 1: Engineering Knowledge				
PLO 2: Problem Analysis				
PLO 3: Design and Development of Solutions				
PLO 4: Investigation				
PLO 5: Modern Tool Usage				
PLO 6: The Engineer and Society		✓		
PLO 7: Environment and Sustainability			✓	
PLO 8: Ethics	✓			
PLO 9: Individual and Team Work				
PLO 10: Communication				✓
PLO 11: Project Management				
PLO 12: Life Long Learning				

Learning Methodology:

This course will be conducted mostly in an interactive method. There will be a small presentation by the instructor in each lecture, but most of the lecture will consist of discussion of concepts related to ethics in engineering. Students will be given material to study before coming to class. Different students in each class will then initiate discussion based on the provided material. Class participation will be graded for each student.

Course Contents

The contents of each lecture will follow closely the topics as presented in the required books.

Grade Evaluation Criteria

Following is the criteria for the distribution of marks to evaluate final grade in a semester:

Marks Evaluation	Marks in percentage
Quizzes	15
Assignments	15
Project	10
Mid Term	25
Final exam	35
Total	100

Recommended Text Book:

1. Engineering Ethics, by Charles B. Fleddermann, 4th Edition, 2012, Prentice Hall.

Reference Books:

2. Engineering Ethics: Concepts and Cases, by Charles E. Harris, Michael S. Pritchard and Michael J. Rabins, 4th Edition, 2009, Wadsworth, Cengage Learning
3. Engineering Ethics: An Industrial Perspective, by Gail D. Baura, 2006, Elsevier Inc.

Calendar of course contents to be covered during semester

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Week	Course Contents	Reference Chapter(s)	CLOs Covered
1	Introduction	Chap 1 (Book1 & Book 2)	1
2	Definition and Scope of Engineering Ethics, Moral Autonomy, Personal vs. Professional ethics, Ethics and law,	Chap 1 (Book1 & Book 2)	1
3	Similarity between Engineering ethics and Engineering design, Types of ethics or morality	Chap 1 (Book1 & Book 2)	1
4	Code of Ethics, Engineering as a profession, Responsibility in Engineering	Chap 2 (Book1)	1
5 - 6	Preventive ethics, Aspirational ethics, Positive engineering, Professionalism and Code of Ethics, Engineering as a profession, Responsibility in Engineering	Chap 2 (Book1)	2
7 - 8	Ethical Thought, Ethical theories, Utilitarianism, Duty ethics, Rights ethics, Virtue ethics	Chap 3 (Book1)	2
9	**Midterm Exam**		
10 - 11	Ethical problem solving, Analysis of issues in ethical problems, Types of issues in ethical problem solving	Chap 4 (Book1)	2

12	Line drawing technique, Flow charting technique	Chap 4 (Book1)	2
12	Conflict Problems, Bribery/Acceptance of gifts	Chap 4 (Book1)	2
13	Engineers and Safety, Designing for safety	Chap 5 (Book1)	3
14 - 15	The Rights and Responsibilities of Engineers, Engineers and the defence industry, Whistle-blowing	Chap 6 (Book1)	1
16	**Final Examination**		

Mapping of CLOs to Direct Assessments:

CLOs▼	Quiz 1	Quiz 2	Presentation 1	Presentation 2	Midterm Exam	Final Exam
1	✓				✓	✓
2		✓			✓	✓
3						✓
4			✓	✓		