The Hashemite University
Faculty of Engineering
Department of Allied Engineering sciences
Course Syllabus
First Semester 2022-2023

Course Title:	Ethics and Communication Skills	**Course Number:**	
Designation:	Compulsory,	**Prerequisite(s):**	
Instructor:		**Instructor's email:**	
Coordinator of the Course:			
Office Hours:			

Course Description:

This course aims to introduce engineering ethics in theory and practice using a multi-disciplinary approach. The students are exposed to ethical issues that engineers sometimes face in professional practice, to help students think more clearly and deeply about such issues, and to explore resources, strategies, and options for coping with such conflicts. The course will make use of case studies of ethical issues drawn from different fields of engineering. Oral and written communication skills will be also discussed by introducing levels and style of technical writing. Common errors in usage, documentation and citation of engineering documents will be addressed.

Textbook(s) and/or Other Supplementary Materials:

• David Beer and David McMurrey, "**A guide to writing as an engineer**", 4th Edition, John Wiley & sons, 2014.
• Charles B. Fleddermann, "**Engineering Ethics**", 4th Edition, Pearson Prentice Hall, 2012.

References:

- Gerald Alred, Charles Brusaw, and Walter Oliu, "**The Handbook of Technical Writing**", St. Martin's Press, 7th edition

Mike Martin and Roland "**Ethics in Engineering**" Fourth Edition, Mc Graw Hall.

Major Topics Covered:

Topic	# Weeks	# Contact hours*
Introduction	1	3
Engineers and Writing	0.5	1.5
Eliminating Intermittent(sporadic) Noise in Writing	0.5	1.5
Some Guidelines for Good Engineering Writing	0.5	1.5
Writing Letters, Memoranda, and E-mail	0.5	1.5
Writing Common Engineering Documents	0.5	1.5
Writing an Engineering research and design Report	0.5	1.5
Tables and Graphics	0.5	1.5
Engineering Your Presentation	1	3
Writing to Get an Engineering Job	1	3
Documentation and Ethics in Engineering Writing	0.5	1.5
Presentation 1: Introduction	0.5	1.5
Presentation 2: Professionalism and Codes of Ethics	0.5	1.5
Presentation 3: Understanding Ethical Problem	0.5	1.5
Presentation 4: Ethical Problem-Solving Techniques	0.5	1.5

Presentation 5: Risk, Safety, and Accidents	0.5	1.5
Presentation 6: The Rights and Responsibilities of Engineers	0.5	1.5
Presentation 7: Ethical Issues in Engineering Practice	0.5	1.5
Presentation 8: Doing the Right Thing	0.5	1.5
Total	11	**33**

***Contact hours include lectures, quizzes and exams**

Specific Outcomes of Instruction (Course Learning Outcomes):
After completing the course, the student will:

CLO 1 Understand the nature of professional responsibility and be able to identify the ethical elements in decisions (4)

CLO 2 Communicate effectively in oral and written format (3,5)

CLO 3 Develop an ability to function on multidisciplinary teams (3,5)

Student Outcomes (SO) Addressed by the Course:

#	Outcome Description	Contribution
	General Engineering Student Outcomes	
(1)	an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics	
(2)	an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors	
(3)	an ability to communicate effectively with a range of audiences	H
(4)	an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must be considered the impact of engineering solutions in global, economic environmental, andsocietal contexts	H
(5)	an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives	M
(6)	an ability to develop and conduct appropriate experimentation, analyze, and interpret data, and use engineering judgment to draw conclusions	
(7)	an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.	
H=High, **M**= Medium, **L**=Low		

Grading Plan:

Midterm Exam	30 Points
Presentation and Homework (CV)	30 Points
Final exam	40 Points