



**ESOGU ELECTRICAL-ELECTRONICS ENGINEERING DEPARTMENT
COURSE INFORMATION FORM**

Course Title	Course Code
THE ENGINEER AND SOCIETY	151228548

Semester in Program	Number of Course Hours per Week		ECTS Credit
	Theory	Practice	
8	2	0	2

Course ECTS Credit Distribution				
Basic Sciences	Engineering Sciences	Design	General Education	Social Sciences
				2

Language of Instruction	Course Level	Course Type
English	Undergraduate	Required

Prerequisite	NONE
Objectives of the Course	To develop moral reasoning skills critical thinking To explore the fundamental structure of human personhood, the philosophical grounding of moral action, and the development of moral character as the precondition of all integral performance in a profession To raise awareness on labor law. To raise environmental awareness.
Brief Course Content	Ethical issues in the practice of engineering, safety and liability, professional responsibility to clients and employers, whistle-blowing, codes of ethics, career choice, legal obligations; fundamentals of law, Labor Law, case studies, environmental issues, global energy issue.

Learning Outcomes of the Course		Contributed POs	Teaching Methods *	Assessment Methods **
1	Information about universal and societal effects of engineering applications on health, safety and environment;.	9a, 9b, 11, 12	1,2	A
2	Awareness of the legal consequences of engineering solutions	9a, 9b, 11, 12	1,2	A
3	Understanding of professional and ethical responsibility	9a, 9b, 11, 12	1,2	A
4	Basic understanding of the Labor Law	9b	1,2	A
5	Knowledge about risk management and accidents	10a	1,2	A
6				
7				
8				

*Teaching Methods 1:Lecture, 2:Discussion, 3:Experiment, 4:Simulation, 5:Question-Answer, 6:Tutorial, 7:Observation, 8:Case Study, 9:Technical Visit, 10:Problem Solving, 11:Individual Work, 12:Team/Group Work, 13:Brain Storm, 14:Project Design / Management, 15:Report Preparation and/or Presentation

**Assessment Methods A:Exam, B:Quiz, C:Oral Exam, D:Homework, E:Report, F:Article Examination, G:Presentation, I:Experimental Skill, J:Project Observation, K:Class Attendance; L:Jury Exam

Main Textbook	C.B. Fleddermann, <i>Engineering Ethics</i> , 3rd Ed., New Jersey: Pearson Prentice Hall, 2008
Supplementary Resources	Text of Turkish Labor Law Occupational Health and Work Safety Law Unger, S. <i>Controlling Technology: Ethics and the Responsible Engineer</i> , 2nd Ed., Wiley, 1994
Necessary Course Material	None

Course Weekly Schedule	
1	History of Ethics, Engineering and ethics
2	Professionalism and code of ethics
3	Understanding Ethical Problems
4	Ethical problem solving techniques
5	Risk, Safety and Accidents
6	The Rights and Responsibilities of Engineers
7	Ethical issues in engineering practice
8	Mid-Term Exams
9	Fundamentals of Law—Main Concept and Sources
10	Fundamentals of Law—Branches of Law
11	Turkish Labor Law—Basic Definitions
12	Turkish Labor Law—Basic Rules
13	Turkish Labor Law—Some Details
14	Occupational Health Work Safety Law—Basic Rules
15	Review
16,17	Final Exams

Calculation of Course Workload			
Activities	Count	Time (Hour)	Total Workload (Hour)
Weekly classroom time	14	2	28
Weekly study time (review, reinforcing, preparation)	14	1	14
Homework			
Taking a quiz			
Studying for a quiz			
Oral exam			
Studying for an oral exam			
Report writing (Preparation and presentation time included)			
Project (Preparation and presentation time included)			
Presentation (Preparation time included)			
Mid-Term Exam	1	1	1
Studying for Mid-Term Exam	1	4	4
Final Exam	1	1	1
Studying for Final Exam	1	4	4
	Total workload		52
	Total workload / 30		1,73
	Course ECTS Credit		2

Assessment	
Activity Type	%
Mid-term Exam	50
Final Exam	50
Total	100

COURSE CONTRIBUTION TO THE PROGRAM OUTCOMES

(5: Very high, 4: High, 3: Middle, 2: Low, 1: Very low)

NO	PROGRAM OUTCOMES	Contribution
1	a. Sufficient knowledge of mathematics	
	b. Sufficient knowledge of basic sciences	
	c. Sufficient basic engineering and Electrical-Electronics engineering knowledge	
	d. Skill of applying all these knowledge and experience to complicated Electrical-Electronics engineering problems	
2	Skill of defining, identifying, formulating and solving the complicated problems in Electrical-Electronics engineering and related areas by applying appropriate analysis and modelling methods.	
3	Skill of designing a complicated process, system, equipment or product by applying modern design methods under realistic constraints and conditions.	
4	To analyze and solve the complicated engineering problems:	
	a. skill of developing, selecting and applying the required techniques and devices	
	b. skill of using information technologies effectively	
5	To study the complicated on the complicated Electrical-Electronics engineering problems and research subjects:	
	a. skill of experimental design	
	b. skill of performing the experiments, collecting the data and analyzing and interpreting the results	
6	a. Skill of performing individual studies	
	b. Skill of performing intra and interdisciplinary and multidisciplinary teamwork and studies	
7	a. Skill of effective oral and written communication in Turkish and English	
	b. Skill of improving and using foreign language knowledge	
	c. Skill of effective reporting, understanding the reports and preparing the design and production reports	
	d. Skill of effective presentation and giving and getting clear and understandable instructions.	
8	Awareness of the necessity of life-long learning and skill of accessing to information and following the improvements in contemporary science and technology	
9	a. Awareness of necessity of behaving in accordance with the ethical principles and awareness of the importance of having professional ethical responsibilities	5
	b. Knowledge about legal regulations and standards of engineering	5
10	a. Knowledge about project management, risk management and change management	4
	b. Awareness of the significance of entrepreneurship and innovation	
	c. Knowledge about sustainable development	
11	Knowledge about the effects of engineering applications and practices on the global and social health, ecology and safety, knowledge about the current problems in relation to the working areas of Electrical-Electronics engineering; and awareness of the legal issues resulting from engineering solutions	5
12	Knowledge about modern problems in local and universal scale	5

INSTRUCTORS

Prepared by	Prof.Dr. H. H. Erkaya			
--------------------	-----------------------	--	--	--

Date:13.07.2024