I.T.U. MANAGEMENT ENGINEERING DEPARTMENT

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DERS KATALOG FORMU

(COURSE CATALOGUE FORM)

Course Title	**Turkish**	İşletme Mühendisliği'ne Giriş ve Etik				
	English	Introduction to Management Engineering and Ethics				
Code	ISL 121E	**Credit**	**ECTS Credits**	**Lecture (hour/week)**	**Recitation (hour/week)**	**Laboratory (hour/week)**
Regular Semester	Fall	2	6	2	-	-
Instruction Language		English				
Course Type		Compulsory				
Course Coordinator(s)		--				
Instructor(s)		Doç. Dr. Nihan Yıldırım / Dr. Zeynep Erden Bayazıt				
Assistant(s)		Management Engineering Research Assistants				
Objectives		This course is an orientation course for the Management Engineering Program's first year students. It aims to inform the students on the general subject matter of Management Engineering; to differentiate the management issues from management engineering; to lay the basis of the courses they will take in the rest of the program and to link those with the design processes.				
Description		Students will have detailed information on the profession through lectures, invited speakers and projects. The design project will enable the students to develop their creativity, written and oral communication skills, and to experience teamwork.				
Outcomes		1. Knowledge about the scope and branches of Management Engineering. 2. Understanding of professional responsibility. 3. Understanding ethics in engineering. 4. Ability to work in teams. 5. Understanding of the design concept in management engineering.				
Textbook(s)		Davis, M. (1998) **Thinking Like an Engineer**, Oxford University Press. **A Guide to the Engineering Management Body of Knowledge (5th ed 2019 EMBOK)** Martin, M. W. and R. Schinzinger, (2000). **Introduction to Engineering Ethics.** Boston: McGraw Hill Harris, C. E., Pritchard, Michael S. And Michael J. Rabins (2005). **Engineering Ethics**. CA: Thomson Wadsworth. Crane, A.and D. Matten. (2004). **Business ethics : a European perspective :Managing Corporate Citizenship and Sustainability In the Age of Globalization .**Oxford : Oxford University Press Bazerman, Max.H. and Tenbrusel, Ann E. (2011). **Blind Spots**. Princeton: Princeton University Press				
Other References		Course notes				
Prerequisite Course(s)		-				
Homework & Projects		Project				
Laboratory Work		-				
Computer Use		OFFICE SET				
Other Activities		-				

Assessment Criteria	**Method**	**Quantity**	**Percentage (%)**
	Midterm Exam(s)	1	30
	Quizzes		
	Homework	1	20
	Projects		
	Term Paper(s)		
	Laboratory Work		
	Other (Discussion and Contribution to class)	1	10
	Final Examination	1	40
Course Category (%)	**Mathematics and Basic Sciences**		
	Engineering Science		
	Engineering Design		100
	Social Sciences		

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WEEKLY LECTURE PLAN	
Week	**Topics**
1	**Orientation lecture by the Department Head and Faculty members**
2	Introduction to Engineering in General and Management Engineering in particular;
3	Management Engineering as a Profession,
4	Basic Concepts of Management Engineering: Design in Management Engineering: Role and significance; Information Technologies in Management Engineering Design Process
5	Creativity and creative thinking; thinking out of the box Design Development I: Defining the Problem, Methodology, Data Collection- Design Thinking , Analysis and Solution
6	Innovativeness and New Product Development and Introduction to Marketing
7	Management Engineers discuss their field: **Panel with Graduates of the Department**
8	Skills for Anthropocene – Responsible engineering, Relationship between Management Engineering, other engineering fields, arts and humanities
9	Engineering as Social Experimentation Topic: Safety, Risk and Liability in Engineering
10	Traditional approaches to ethics: Normative ethical theories Topic: Review of sources of guidance for ethical decision making, from personal values to moral philosophy.
11	Contemporary Approaches to Ethics: Topic: Behavioral Ethics and Value Based Ethics
12	Engineers as Employees : Workplace responsibilities and rights Topic: The role of engineers in workplace, identifying the core ethical topics of employees' rights and duties, exploring the ethical issues and problems faced in business-employee relations, understating possible conflicts between personal values and company actions.
13	Framing ethics in Organizations: Corporate responsibility, stakeholders, and citizenship: Topic: Analyzing the notion of responsibility for corporations, presenting the stakeholder theory of the firm, understanding the concept of corporate accountability and further thinking on corporate citizenship.
14	Management Engineering Project: Student Presentations I Management Engineering Project: Student Presentations II

CONTRIBUTION OF THE COURSE TO CURRICULA AND PROFESSIONAL DEVELOPMENT

L: Low, **M**: Medium, **H**: High

PROGRAM OUTCOMES		**L**	**M**	**H**
A	An ability to apply knowledge of mathematics, science, and engineering to Management Engineering problems			
B	An ability to design and conduct experiments, and to analyze and interpret gathered data			
C	An ability to develop and/or design a system , components or process to meet desired needs			
D	An ability to function on multi-disciplinary teams			
E	An ability to identify, formulate, and solve Management Engineering problems	X		
F	An understanding of professional and ethical responsibility			X
G	An ability to communicate effectively	X		
H	The broad education to understand the impact of Management Engineering solutions in a global and societal context	X		
I	An ability to engage in life-long learning		X	
J	A knowledge and understanding of contemporary issues	X		
K	An ability to use the techniques, skills and modern engineering tools necessary for Management Engineering practice			
ME1	An ability to integrate management systems into stochastic technological environments			
ME2	An ability to demonstrate leadership and entrepreneurial skills			

	Date: