T.C. ESKİŞEHİR OSMANGAZİ UNIVERSITY
ENGINEERING AND ARCHITECTURE FACULTY
MECHANICAL ENGINEERING DEPARTMENT

COURSE INFORMATION FORM

SEMESTER	Fall

COURSE CODE	151811208	COURSE NAME	Introduction to Mechanical Engineering (A)

SEMESTER	WEEKLY COURSE PERIOD			COURSE OF			
	Theory	Practice	Laboratory	Credit	ECTS	TYPE	LANGUAGE
1	2	0	0	2	4	COMPULSORY (x) ELECTIVE ( )	Turkish

COURSE CATAGORY			
Basic Science	Basic Engineering	Mechanical Engineering [if it contains considerable design, mark with (√)]	Social Science
		x ( )	

ASSESSMENT CRITERIA			
	Evaluation Type	Quantity	%
MID-TERM	Mid-Term	1	50
	Quiz		
	Homework		
	Project		
	Report		
	Others (……)		
FINAL EXAM		1	50

PREREQUIEITE(S)	
COURSE DESCRIPTION	Engineering profession and the place of mechanical engineering in it. Development of mechanical engineering. The general definitions, importance and working areas of mechanical engineering. Engineering ethics.
COURSE OBJECTIVES	The main purpose of the course is to introduce the mechanical engineering profession to the new students, to have students understand engineering ethics.
ADDITIVE OF COURSE TO APPLY PROFESSIONAL EDUATION	Knowledge of mechanical and general engineering terminology, and fundamentals. Understanding of engineering ethics.
COURSE OUTCOMES	By the end of this module students will be able to: 1. Knowledge of mechanical engineering profession, its history and topics. 2. Knowledge of mechanical engineering's current issues, future, job facilities and role in the society. 3. An ability to understand and comment on the impact of engineering solutions in a national and global context. 4. An understanding of professional and ethical responsibility. 5. Recognition of the life-long learning. 6. Knowledge of contemporary issues in mechanical engineering.
TEXTBOOK	Akkurt M., "Makina Bilgisi", Birsen Yayınevi, İstanbul, 2000.

OTHER REFERENCES	1. Fleddermann C. B., “Engineering Ethics”, 2nd ed., Pearson, Prentice Hill, 2004. 2. Kurbanoğlu, C., “Makina Bilgisi”, Nobel Yayınevi, Ankara, 2009. 3. Babalık F.C. ve Çavdar K., “Makine Mühendisliğine Giriş”, Dora Yayınevi, Bursa, 2012.
TOOLS AND EQUIPMENTS REQUIRED	Computer, projector.

COURSE SYLLABUS	
WEEK	**TOPICS**
1	Introduction, definitions, fundamentals of mechanical engineering
2	Definitions, classifications, development of mechanical engineering
3	Energy, machines and installations
4	Production methods and machines
5	Production methods and machines
6	Knowledge of engineering materials
7	Knowledge of mechanics of materials
8	Mid-Term Examination
9	Mid-Term Examination
10	Knowledge of machine elements
11	Units, units conversions
12	Ethics and engineering ethics
13	Engineering ethics
14	Engineering ethics
15,16	Final Exam

NO	PROGRAM OUTCOMES	3	2	1
1	Sufficient knowledge of engineering subjects related with mathematics, science and mechanical engineering; an ability to apply theoretical and practical knowledge on solving and modeling of mechanical engineering problems.		**x**	
2	Ability to determine, define, formulate and solve complex mechanical engineering problems; for that purpose an ability to select and use convenient analytical and experimental methods.			**x**
3	Ability to design a complex system, a component and/or an engineering process under real life constrains or conditions, defined by environmental, economical and political problems; for that purpose an ability to apply modern design methods.			**x**
4	Ability to develop, select and use modern methods and tools required for mechanical engineering applications; ability to effective use of information technologies.		**x**	
5	In order to investigate mechanical engineering problems; ability to set up and conduct experiments and ability to analyze and interpretation of experimental results.			**x**
6	Ability to work effectively in inner or multi-disciplinary teams; proficiency of interdependence.			**x**
7	Ability to communicate in written and oral forms in Turkish/English; proficiency at least one foreign language.			**x**
8	Awareness of life-long learning; ability to reach information; follow developments in science and technology and continuous self-improvement.		**x**	
9	Understanding of professional and ethical issues and taking responsibility	**x**		
10	Awareness of project, risk and change management; awareness of entrepreneurship, innovativeness and sustainable development.		**x**	
11	Knowledge of actual problems and effects of engineering applications on health, environment and security in global and social scale; an awareness of juridical results of engineering solutions.		**x**	
1:None. **2**:Partially contribution. **3**: Completely contribution.				

Prepared by: Assist.Prof.Dr. Ümit ER **Date:** 13.11.2017

Signature(s):