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

COURSE INFORMATION FORM

SEMESTER	Fall

COURSE CODE	151818432 - 151838432	COURSE NAME	Mechanical Engineering Design II

SEMESTER	WEEKLY COURSE PERIOD			COURSE OF			
	Theory	Practice	Laboratory	Credit	ECTS	TYPE	LANGUAGE
8	1	4	0	3	7	COMPULSORY (X) ELECTIVE ( )	

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

ASSESSMENT CRITERIA			
	Evaluation Type	Quantity	%
MID-TERM	Mid-Term	1	20
	Quiz		
	Homework	1	20
	Project	1	40
	Report		
	Others (……)		
FINAL EXAM		1	20

PREREQUIEITE(S)	Students will experience the process from conceptual design to manufacturing of a mechanical system by preparing a design project.
COURSE DESCRIPTION	The students will design projects at different areas of mechanical engineering by combining their knowledge on the theoretical and practical training courses.
COURSE OBJECTIVES	It is an applied study of mechanical engineering on the design
ADDITIVE OF COURSE TO APPLY PROFESSIONAL EDUATION	1. Planning, formulating and organizing of the system design, 2. Questioning, optimizing, simulating of the existing systems, and develop and re-design of the system, 3. Interpreting, presenting, suggesting and reporting the system.
COURSE OUTCOMES	
TEXTBOOK	
OTHER REFERENCES	
TOOLS AND EQUIPMENTS REQUIRED	Computer and other laboratory facilities

COURSE SYLLABUS	
WEEK	**TOPICS**
1	General information about design elements, design variables, constraints, needs, conceptual design,
2	Giving general information about the project and creating project teams
3	Project advisory
4	Project advisory
5	Project advisory
6	Project advisory
7	Project advisory
8	Mid-Term Examination - INTERIM REPORT DELIVERY
9	Mid-Term Examination
10	Project advisory
11	Project advisory
12	Project advisory
13	Project advisory
14	Project advisory
15,16	Final Exam - PROJECT REPORT DELIVERY AND PRESENTATIONS

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, economic 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.				

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