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

COURSE INFORMATION FORM

SEMESTER	Fall

COURSE CODE	151817477	COURSE NAME	PUMP DESIGN

SEMESTER	WEEKLY COURSE PERIOD			COURSE OF			
	Theory	Practice	Laboratory	Credit	ECTS	TYPE	LANGUAGE
VII	3	0	0	3	5	COMPULSORY () ELECTIVE (x)	Turkish

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	50
	Quiz		
	Homework		
	Project		
	Report		
	Others (……)		
FINAL EXAM		1	50

PREREQUIEITE(S)	
COURSE DESCRIPTION	Description, theory and design of all kinds of pumps
COURSE OBJECTIVES	The aim is to prepare the students to ındustrial applications.
ADDITIVE OF COURSE TO APPLY PROFESSIONAL EDUATION	Is advised to all mechanical engineering students.
COURSE OUTCOMES	•-
TEXTBOOK	Centrifugal and Rotary Pumps, Fundemantals with applications, LEV NELİKHydrodynamics of Pumps, Christopher E.Brennen, Pump users handbook, F.Bollak Pump Handbook, Igor Karassik, Joseph P. Messina
OTHER REFERENCES	•----------
TOOLS AND EQUIPMENTS REQUIRED	Necessary documents will be handled over during the tests.

COURSE SYLLABUS	
WEEK	**TOPICS**
1	Description of Hydraulic Machinery, General knowledge for pumps and türbines..
2	Nomenclature for pumps.
3	Similarity for pumps
4	Power and efficiency in pumps
5	Pump theory
6	Characteristics for Pumps
7	Cavitation in pumps.
8	Mid-Term Examination
9	Mid-Term Examination
10	Pump theory
11	Pump theory
12	Pump design
13	Pompa design
14	Pompa design
15,16	Final Exam

NO	PROGRAM OUTCOMES	3	2	1
1	Sufficient knowledge of engineering subjects related with mathematics, science and own branch; an ability to apply theoretical and practical knowledge on solving and modeling of engineering problems.	x		
2	Ability to determine, define, formulate and solve complex 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 engineering applications; ability to effective use of information technologies.	x		
5	In order to investigate 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: **Date:**

Signature(s):