



ESOGÜ Makine Mühendisliği Bölümü Ders Bilgi Formu

DÖNEM	GÜZ
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COURSE CODE	151817449			COURSE NAME	HYDRAULIC MACHINERY		
SEMESTER	WEEKLY COURSE PERIOD			COURSE OF			
	Theory	Practice	Laboratory	Credit	ECTS	TYPE	LANGUAGE
AUTUMN	3				5	COMPULSORY () ELECTIVE (X)	
COURSE CATAGORY							
Basic Science	Basic Engineering	 Engineering [if it contains considerable design, mark with (√)]			Social Science	
			(X)				
ASSESSMENT CRITERIA							
MID-TERM				Evaluation Type	Quantity	%	
				1 st Mid-Term	1	20	
				2 nd Mid-Term	1	30	
				Quiz			
				Homework			
				Project			
				Report			
Others (.....)							
FINAL EXAM					1	50	
COURSE DESCRIPTION				Centrifugal, gear, vane pump and radial ventilator and pelton turbine design, and cost estimation.			
COURSE OBJECTIVES				Prepare the students to application and prediction for these subjects for industry hazırlamak.			
ADDITIVE OF COURSE TO APPLY PROFESSIONAL EDUATION				Cost prediction for the designed units(pump, ventilator and turbines).			
COURSE OUTCOMES				1.Student can know pumps, ventilator,Türbines and thier applications. 2.Student can comment on structional basis of pumps, ventilator and türbines. 3.Student can apply construction knowledge on hydraulic machmnery and ventilators. 4.Student can determine the perpetual strenght os pumps, ventialtor and türbines. 5.Student can follow the development designed pumps, ventilator and türbines at production and indutry and value them easily.			
TEXTBOOK				Impeller Pumps(A.T.Troskalanski), Pergamon Press Centrifugal Pumps, Lesicon Fluid Machinery, Terry White Fans (Bruno Eck, Pergamon Press) Su Türbinleri ve Santral Binaları Boyutlan. Mehmet Turgut			

COURSE SYLLABUS

WEEK	TOPICS
1	Ventilator design theory and applications
2	Ventilator design theory and applications
3	Ventilator design theory and applications
4	Ventilator design theory and applications
5	Ventilator design theory and applications
6	Mid-Term Examination 1
7	Gear and vane pump design theory and applications
8	Gear and vane pump design theory and applications
9	Centrifugal pump design theory and applications
10	Centrifugal pump design theory and applications
11	Mid-Term Examination 2
12	Centrifugal pump design theory and applications
13	Water turbine design and applications
14	Water turbine design and applications
15,16	Final Exam

NO	PROGRAM OUTCOMES	3	2	1
1	Sufficient knowledge of engineering subjects related with mathematics, science and ... engineering ; 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: PROF.DR.YAŞAR PANCAR

Date:

Signature(s):