



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Wind Turbine Systems and Components							
Course Code		AEK221		Couse Level		Short Cycle (Associate's Degree)			
ECTS Credit	3	Workload	73 (Hours)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course		Students are expected to learn about wind turbines and their components.							
Course Content		Fundamental concepts, detailed information on turbin components.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Discussion, Individual Study, Problem Solving					
Name of Lecturer(s)									

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	70

Recommended or Required Reading

1	Alternatif Enerji Kaynakları Yazar: Mustafa Acaroğlu
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Week	Weekly Detailed Course Contents	
1	Theoretical	Introduction and basic concepts
2	Theoretical	Nacelle
3	Theoretical	Rotor Blades
4	Theoretical	Hub
5	Theoretical	Low Speed Shaft
6	Theoretical	Gearbox
7	Theoretical	High Speed Shaft With Its Mechanical Brake
8	Intermediate Exam	Midterm exam
9	Theoretical	Electrical Generator
10	Theoretical	Yaw Mechanism
11	Theoretical	Electronic Controller
12	Theoretical	Hydraulics System
13	Theoretical	Cooling Unit, tower
14	Theoretical	Anemometer and Wind Vane
15	Final Exam	Final exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	13	0	2	26
Assignment	7	1	2	21
Individual Work	7	1	1	14
Midterm Examination	1	5	1	6
Final Examination	1	5	1	6
Total Workload (Hours)				73
[Total Workload (Hours) / 25*] = ECTS				3

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	
2	
3	



4	
5	

Programme Outcomes (Alternative Energy Sources Technology)

1	To have knowledge about basic science and technology.
2	To have knowledge about basic energy and alternative energy sources.
3	To have knowledge about basic electrical and electronic laws.
4	To have knowledge about the installation and operation of energy facilities.
5	Learning the methods of recycling of waste and use of energy.
6	To have experience in energy generation and project design.

Contribution of Learning Outcomes to Programme Outcomes 1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High

	L1	L2	L3	L4	L5
P1	5	4	4	4	4
P2	4	5	5	4	4
P3	5	4	4	4	4
P4	3	3	3	5	5
P5	3	3	3	4	4
P6	3	3	3	5	5

