



AYDIN ADNAN MENDERES UNIVERSITY
SÖKE VOCATIONAL SCHOOL
ELECTRICAL AND ENERGY
ALTERNATIVE ENERGY SOURCES TECHNOLOGY
COURSE INFORMATION FORM

Course Title	Generation Of Electricity With Wind Energy								
Course Code	AET206			Course Level		Short Cycle (Associate's Degree)			
ECTS Credit	5	Workload	120 (Hours)	Theory	3	Practice	1	Laboratory	0
Objectives of the Course	In this course it is aimed that students acquire following competencies; introducing systems generating electric from wind power, determining system capacity, competencies related to mounting and testing								
Course Content	Making load analysis, measuring wind speed and direction, calculating power by identifying suitable height of the turbine, determining mounting place, organizing basic connections and load-bearing system, constructing tower, wing, shaft and generator connections of wind turbine, making electrical connections and tests of the wind turbine, calculating battery numbers, making charge regulator connection, making battery grouping, making inverter connection, making network inputs and outputs, install counter group.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Experiment, Demonstration								
Name of Lecturer(s)	Ins. Baybars DAL								

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

Recommended or Required Reading

1	Lecturer notes.
---	-----------------

Week	Weekly Detailed Course Contents	
1	Theoretical	Making load analysis
2	Theoretical	measuring wind speed and direction
3	Theoretical	calculating power by identifying suitable height of the turbine
4	Theoretical	determining mounting place
5	Theoretical	organizing basic connections and load-bearing system
6	Theoretical	constructing tower, wing, shaft and generator connections of wind turbine
7	Theoretical	making electrical connections and tests of the wind turbine
8	Theoretical	calculating battery numbers
9	Theoretical	making charge regulator connection
10	Theoretical	making battery grouping
11	Theoretical	making inverter connection
12	Theoretical	making inverter connection
13	Theoretical	making network inputs and outputs
14	Theoretical	install counter group

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	1	3	56
Lecture - Practice	14	0	1	14
Term Project	7	4	0	28
Midterm Examination	1	10	1	11
Final Examination	1	10	1	11
Total Workload (Hours)				120
[Total Workload (Hours) / 25*] = ECTS				5

*25 hour workload is accepted as 1 ECTS



Learning Outcomes

1	Determining wind turbine power
2	Mounting wind turbine
3	Mounting batteries
4	Mounting inverter
5	Mounting network connections and counter group.

Programme Outcomes (*Alternative Energy Sources Technology*)

1	Carry out installing work
2	Do mechanical drawing
3	Do pipe welding
4	Do basic electricity works
5	Do Computer assisted design
6	Install solar energy hot water preparation system.
7	Do measurement and calculations practices.
8	Do basic practices of geothermal energy.
9	Install control and automation system.
10	Install domestic water heating system with solar energy.
11	Generate electricity with solar energy
12	Generate electricity with wind power
13	Do geothermal energy practices
14	Install domestic cooling system
15	Do heating pump practices
16	Manage a business
17	SET UP A WORKPLACE/ BUSINESS (pre-requisite)
18	OBEY VOCATIONAL ETHICAL VALUES
19	RESEARCH AND EVALUATION/OBSERVATION
20	SELFIMPROVEMENT WITH USING INFORMATION FACILITIES
21	Knows the effects of all energy sources on the environment.
22	Can communicate in a foreign language

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

	L1	L2	L3	L4	L5
P4	3	3	3	3	3
P12	5	5	5	5	5

