AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Solar Energy						
Course Code	AET105		Couse Level	Short Cycle (Associate's Degree)			
ECTS Credit	4	Workload	99 *(Hours)*	Theory	2	Practice	1	Laboratory	0
Objectives of the Course	In this course it is aimed to equip students with following competencies; determining the place where solar energy would be mounted, preparing mounting place, mounting collector, mounting storage tank, doing installment connections and doing maintenance and repair.						
Course Content	Determining the direction of the collector, considering shadowing effect, preparing mounting place for flat installment, preparing mounting place on the roof, mounting panel collector, mounting the storage tanks, making cold water connections, making hot water connections, isolating pipes and installments, repairing breakdown about the installment, repairing problems about low efficiency.						
Work Placement	N/A						
Planned Learning Activities and Teaching Methods			Explanation (Presentation), Demonstration				
Name of Lecturer(s)	Ins. Baybars DAL						

Assessment Methods and Criteria

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

Recommended or Required Reading

1	Güneş enerjisi ve uygulamaları - Doç.Dr.H.Hüseyin Öztürk

Week	Weekly Detailed Course Contents	
1	Theoretical	Determining the direction of the collector
2	Theoretical	considering shadowing effect,
3	Theoretical	preparing mounting place for flat installment
4	Theoretical	preparing mounting place on the roof
5	Theoretical	mounting panel collector
6	Theoretical	
7	Theoretical	mounting the storage tanks
8	Theoretical	
9	Theoretical	making cold water connections
10	Theoretical	making hot water connections
11	Theoretical	isolating pipes and installments
12	Theoretical	isolating pipes and installments
13	Theoretical	repairing breakdown about the installment
14	Theoretical	repairing problems about low efficiency.

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	1	2	42
Lecture - Practice	14	0	1	14
Assignment	7	3	0	21
Midterm Examination	1	10	1	11
Final Examination	1	10	1	11
			Total Workload (Hours)	99
			[Total Workload (Hours) / 25*] = **ECTS**	4
*25 hour workload is accepted as 1 ECTS				

Learning Outcomes

1	Determining the place where solar energy would be mounted

2	Preparing mounting place of solar energy
3	Mounting solar energy collector
4	Mounting solar energy water storage tank
5	Doing installment connections
6	Doing maintenance and repair

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 EVALUA0TION/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
23	Ability to use the methods and techniques of career planning and discussing the effects of character traits on career preferences.
24	Ability to plan a career in their own profession.
25	To produce solutions by using the laws of physics in the use or design of tools-machines or devices related to the profession.
26	To provide them with knowledge about substance use and addiction problem and prevention methods.

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

	L1	L2	L3	L4	L5	L6
P6	4	5	5	5	5	5
P10	4	2	1	5	5	5
P11	4	3	1			