



## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Solar Energy							
Course Code		AET105		Course 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
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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
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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 (Electrics)

1	ABILITY TO MAKE APPLICATIONS OF MEASUREMENT AND CALCULATION
2	ABILITY TO MAKE CONNECTIONS OF A DC CIRCUIT
3	ABILITY TO MAKE BASIC ELECTRONIC CIRCUIT AND APPLICATIONS
4	ABILITY TO MAKE ELECTRIC INSTALLMENT APPLICATIONS
5	ADAPTING VOCATIONAL ETHICAL VALUES
6	ABILITY TO MAKE COMMUNICATION
7	ABILITY TO MAKE CONNECTIONS OF AC CIRCUIT
8	ABILITY TO MAKE NUMERICAL CIRCUITS
9	ABILITY TO MAKE INSTALLATIONS OF TRANSFORMER AND DC ELECTRIC MACHINES
10	ABILITY TO MAKE COMPUTER AIDED DESIGN
11	ABILITY TO APPLY VOCATIONAL TECHNICAL METHODS
12	ABILITY TO MAKE INSTALLATIONS OF AC ELECTRIC MACHINES
13	ABILITY TO MAKE SPECIAL ELECTRIC INSTALLMENTS
14	ABILITY TO MAKE INSTALLMENTS OF COMMAND SYSTEMS
15	ABILITY TO DRAW COMPUTER AIDED ELECTRIC SCHEME
16	ABILITY TO MAKE POWER ELECTRONICS CIRCUITS
17	ABILITY TO MAKE SYSTEM ANALYSIS AND PRODUCT DESIGN
18	ABILITY TO IMPROVE ONESELF UTILIZING INFORMATION OPPORTUNITIES
19	ABILITY TO DRAW COMPUTER AIDED ELECTRIC INSTALLMENT PROJECT
20	ABILITY TO MAKE ANALYSIS AND MAINTENANCE OF ELECTRICAL ENERGY PRODUCTION SYSTEMS
21	ABILITY TO MAKE THE WINDING OF ACCURATE AND ALTERNATIVE CURRENT ENGINES
22	ABILITY TO RECOGNIZE SYSTEMS USED IN ELECTRICAL ENERGY TRANSMISSION AND DISTRIBUTION AND TROUBLESHOOTING
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 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
P1	5	4	4	4	4	2
P2	2	1	1		4	4
P3	2	2	2		3	2
P4	3	3	3	2	4	3
P5	2	3	3	4		
P6	2	3	3	4	2	3
P7	2	1	1	1	4	3
P8	3	1	1			
P9	1	2	2		1	3
P10	2	2	2	2	1	3
P11	5	4	4		4	5
P12	1	2	2		2	3
P13	3	3	3		2	
P14	1	2	2		3	
P15	1	3	3			
P16	2	2	2			
P17	4	1	1	3	3	
P18	3	2	2		3	



P19	3	3	3		3	4
P20	3	3	3		4	4

