



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

Course Title	Basic Electrics								
Course Code	AET104			Course Level		Short Cycle (Associate's Degree)			
ECTS Credit	3	Workload	75 (Hours)	Theory	2	Practice	1	Laboratory	0
Objectives of the Course	This course will equip students with skills like setting basic electric circuits , setting automatic circuits, and electrical motor connections								
Course Content	Setting connection of conductors, using measurement devices, setting alternating and direct circuits, setting grounding and reset connections, setting a circuit with mechanic switches, setting a circuit with thermostat control, setting a circuit with pressurestat control, doing single phased motor connection, identifying the order of the phases, doing three phased motor connection.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Experiment, Demonstration, Individual Study								
Name of Lecturer(s)	Cemal GÖVEN								

#### Assessment Methods and Criteria

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

#### Recommended or Required Reading

1	Doğru Akım Devre Analizi / Murat Ceylan
2	Elektrik Şebeke ve Tesisleri / Mahmut Nacar

Week	Weekly Detailed Course Contents	
1	Theoretical	Setting connection of conductors
2	Theoretical	Using measurement devices
3	Theoretical	Setting alternating and direct circuits
4	Theoretical	Setting grounding and reset connections
5	Theoretical	Setting a circuit with mechanic switches
6	Theoretical	Setting a circuit with thermostat control
7	Theoretical	Setting a circuit with pressurestat control
8	Theoretical	Doing single phased motor connection
9	Intermediate Exam	Midterm Exam.
10	Theoretical	Doing single phased motor connection.
12	Theoretical	identifying the order of the phases
13	Theoretical	Doing three phased motor connection.
14	Theoretical	Doing three phased motor connection.
15	Final Exam	Final Examination

#### Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	1	2	42
Lecture - Practice	14	0	1	14
Midterm Examination	1	9	1	10
Final Examination	1	8	1	9
Total Workload (Hours)				75
[Total Workload (Hours) / 25*] = ECTS				3

\*25 hour workload is accepted as 1 ECTS

#### Learning Outcomes

1	Setting basic electric circuits
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2	Setting basic automatic control circuits
3	Electrical motor connections
4	To make fault detection related to installation
5	Reads electrical installation projects

### 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	5	5	5	5	5

