



## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Basic Electrics							
Course Code		AET104		Couse 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)		Prof. Kutalmış GÜVEN							

### Assessment Methods and Criteria

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

### 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
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
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
P4	5	5	5	5	5

