AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Alternative Current Curcuits								
Course Code	ELE108		Couse Level		Short Cycle (Associate's Degree)				
ECTS Credit	4	Workload	100 *(Hours)*	Theory	3	Practice	1	Laboratory	0
Objectives of the Course	In this course, it is aimed to have the students gain the abilities and knowledge like solution and calculations of circuit in AC.								
Course Content	Serial and parallel circuits in AC, resonance circuits, 1 and 3 phase systems, power and compensation calculations in AC								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Experiment, Demonstration, Problem Solving								
Name of Lecturer(s)	Ins. Serkan ARTAN, Ins. Zafer KORKMAZ								

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	70

Recommended or Required Reading	
1	Alternative current circuits(Mustafa Yağımlı-Feyzi Akar)
2	A.A Circuit analyze(Murat Ceylan)

Week	Weekly Detailed Course Contents	
1	Theoretical	Resistor, coil and capacitor in alternating current
2	Theoretical	Resistor, coil and capacitor in alternating current
3	Theoretical	Serial circuits
4	Theoretical	Serial circuits
5	Theoretical	Parallel circuits
6	Theoretical	Parallel circuits
7	Theoretical	Resonance
8	Intermediate Exam	Midterm
9	Theoretical	Power and compensation in AC
10	Theoretical	Power and compensation in AC
11	Theoretical	Power and energy in monophase AC
12	Theoretical	Power and energy in monophase AC
13	Theoretical	Power and energy in triphase AC
14	Theoretical	Power and energy in triphase AC
15	Theoretical	Power and energy in triphase AC
16	Final Exam	Final Exam

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	1	3	56
Lecture - Practice	14	0	1	14
Assignment	4	2	0	8
Midterm Examination	1	10	1	11
Final Examination	1	10	1	11
			Total Workload (Hours)	100
			[Total Workload (Hours) / 25*] = **ECTS**	4
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	AC basics
2	Making circuit solutions in AC,
3	Making power and energy calculations in AC.
4	Makes compensation calculations.
5	Arrange compensation panel.

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
P4	3	3	3	3	3
P7	3	4	4	3	3
P12	3	4	3	4	4
P13	3	4	3	4	4