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 *(Mechatronics)*	
1	TECHNICAL FOREIGN LANGUAGE
2	BASICS OF MECHATRONICS
3	TECHNICAL DRAWING
4	DOING BASIC MECHANIC PROSESES
5	CHOOSE THE MATERIALS
6	DOING MECHANICAL SYSTEM DESIGN
7	SET UP A HYDRAULİC OR PNEUMATICSYSTEMS
8	DOING COMPUTER AIDED MECHANICAL DESİGN
9	USINGFLEXIBLE PRODUCING SYSTEMS
10	USINGCOMPUTER AIDEDMACHINE TOOLS
11	DOING ELECTRICAL AND ELECTRONICAL
12	SET UP ELECTRICAL AND ELECTRONICAL CIRCUITS
13	SET UP LOGICAL CIRCIUTS
14	DOING COMPUTER AIDED ELECTRONICAL CIRCUITSDESİGN
15	SET UP ELECTRICAL MOTORS
16	SET UP MICROCONTROLLER CIRCIUTS
17	SET UP CONTROL SYSTEMS
18	COMMUNICATE CONTROL SYSTEMS
19	DOING INDUSTRIAL ROBOTIC PROGRAMMINGAND MAINTENANCE
20	WRITING COMPUTER PROGRAMME
21	Ability to use the methods and techniques of career planning and discussing the effects of character traits on career preferences.
22	Ability to plan a career in their own profession.

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

	L1	L2	L3	L4	L5
P12	3	1	1	3	2
P14	3	1	1	3	2