AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Direct Current Curcuits								
Course Code	ELE105		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 about making dc circuit solutions and calculations.								
Course Content	Static electric concepts, circuit solving methods, thevenin norton, nodule voltages, kirschoff laws, side current, power and energy in DC, storage elements.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Experiment, Demonstration, Problem Solving								
Name of Lecturer(s)	Ins. Serkan ARTAN								

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

Recommended or Required Reading	
1	DC Circuit Analyses (Murat Ceylan)
2	DC Circuit Analyses((Abdullah Görkem –Metin Kuş)

Week	Weekly Detailed Course Contents	
1	Theoretical	Static Electric
2	Theoretical	Static Electric, Taking Precautions Against the Unpredictable Effects of Electric Current
3	Theoretical	Taking Precautions Against the Unpredictable Effects of Electric Current, Circuit Solutions in DC
4	Theoretical	Circuit Solutions in DC, Side Currents Method
5	Theoretical	Side Currents Method
6	Theoretical	Nodule Voltage Method
7	Theoretical	Source Connections, Theve'nin Theorem
8	Theoretical	Theve'nin Theorem, Norton Theorem
9	Theoretical	Superposition Theorem, Maximum Power Theorem
10	Theoretical	Maximum Power Theorem, Storage Elements in DC
11	Theoretical	Storage Elements in DC
12	Theoretical	Storage Elements in DC, Power and Energy in DC
13	Theoretical	Power and Energy in DC
14	Theoretical	Power and Energy in DC

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	Application of basics about electric current effects
2	Making of basic circuit solutions

3	Making of complex circuit solutions
4	Calculation of the effects of DC on circuit elements
5	Makes power calculation in direct current.

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
P11	5	3	4	2	4
P12	4	3	4	2	4
P14	2	3	4	2	4