AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Programable Controller								
Course Code	ELE209		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 about programming PLC with ladder diagram and function blocks, programming a touchscreen panel, pneumatics-hydraulics and motor control applications.								
Course Content	Usage of PLC and ladder diagrams and writing a program, design of hydraulic and pneumatic circuits								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Experiment, Demonstration, Individual Study, Problem Solving								
Name of Lecturer(s)	Ins. Zafer KORKMAZ								

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

Recommended or Required Reading	
1	Automation Systems PLC Applications(Dr.Muciz Özkan)

Week	Weekly Detailed Course Contents	
1	Theoretical	Basic technology of PLC
2	Theoretical	PLC units
3	Theoretical	PLC interface program
4	Theoretical	Writing a program with ladder diagram
	Practice	Writing a program with ladder diagram
5	Theoretical	Writing a program with ladder diagram
	Practice	Writing a program with ladder diagram
6	Theoretical	Usage of sequential function blocks program
7	Theoretical	Writing of sequential function blocks program
8	Theoretical	Using operator panel / touchscreen panel
	Practice	Using operator panel / touchscreen panel
9	Theoretical	Using operator panel / touchscreen panel
10	Theoretical	Using operator panel / touchscreen panel
11	Theoretical	Operating a pneumatic circuit with PLC
	Laboratory	Operating a pneumatic circuit with PLC
12	Theoretical	Operating a pneumatic circuit with PLC
	Laboratory	Operating a pneumatic circuit with PLC
13	Theoretical	Operating a hydraulic circuit with PLC
	Laboratory	Operating a hydraulic circuit with PLC
14	Theoretical	Operating a hydraulic circuit with PLC
	Laboratory	Operating a hydraulic circuit with PLC

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	1	2	42
Lecture - Practice	14	1	1	28
Assignment	1	8	1	9
Midterm Examination	1	9	1	10

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	Building up of PLC
2	Programming PLC
3	Making a system control with PLC
4	Can establish hydraulic circuit with programmable controllers.
5	Can establish a pneumatic circuit with programmable controllers.

Programme Outcomes *(Electrics)*	
1	ABILITY TO MAKE APPLICATIONS OF MEASUREMENT AND CALCULATION
2	ABILITY TO MAKE CONNECTIONS OF A DC CIRCUIT
3	ABILITY TO MAKE BASIC ELECTRONIC CIRCUIT AND APPLICATIONS
4	ABILITY TO MAKE ELECTRIC INSTALLMENT APPLICATIONS
5	ADAPTING VOCATIONAL ETHICAL VALUES
6	ABILITY TO MAKE COMMUNICATION
7	ABILITY TO MAKE CONNECTIONS OF AC CIRCUIT
8	ABILITY TO MAKE NUMERICAL CIRCUITS
9	ABILITY TO MAKE INSTALLATIONS OF TRANSFORMER AND DC ELECTRIC MACHINES
10	ABILITY TO MAKE COMPUTER AIDED DESIGN
11	ABILITY TO APPLY VOCATIONAL TECHNICAL METHODS
12	ABILITY TO MAKE INSTALLATIONS OF AC ELECTRIC MACHINES
13	ABILITY TO MAKE SPECIAL ELECTRIC INSTALLMENTS
14	ABILITY TO MAKE INSTALLMENTS OF COMMAND SYSTEMS
15	ABILITY TO DRAW COMPUTER AIDED ELECTRIC SCHEME
16	ABILITY TO MAKE POWER ELECTRONICS CIRCUITS
17	ABILITY TO MAKE SYSTEM ANALYSIS AND PRODUCT DESIGN
18	ABILITY TO IMPROVE ONESELF UTILIZING INFORMATION OPPORTUNITIES
19	ABILITY TO DRAW COMPUTER AIDED ELECTRIC INSTALLMENT PROJECT
20	ABILITY TO MAKE ANALYSIS AND MAINTENANCE OF ELECTRICAL ENERGY PRODUCTION SYSTEMS
21	ABILITY TO MAKE THE WINDING OF ACCURATE AND ALTERNATIVE CURRENT ENGINES
22	ABILITY TO RECOGNIZE SYSTEMS USED IN ELECTRICAL ENERGY TRANSMISSION AND DISTRIBUTION AND TROUBLESHOOTING
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 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
P1	3	3			3
P3	3	3	3		
P8	3	3	3		
P10	4	4	4		
P11	3	3	3		
P14		5	4	4	4
P15				3	3
P16				3	3
P17	5	5	5	5	4