AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Basic Electrical Knowledge								
Course Code	ELT182		Couse Level	Short Cycle (Associate's Degree)					
ECTS Credit	2	Workload	50 *(Hours)*	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	To gain proficiency in basic electrical knowledge.								
Course Content	Definitions of electricity, direct current, alternating current, definitions of electrical circuit, basic electrical measurements, electrical installation information and description of electrical materials, basic electrical connections,								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Demonstration, Individual Study, Problem Solving								
Name of Lecturer(s)									

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

Recommended or Required Reading	
1	M.E.B. Devlet Kitapları Elektrik Bilgisi (Ali Özdemir)

Week	Weekly Detailed Course Contents	
1	Theoretical	Definitions of electricity
2	Theoretical	Definition of direct current and alternating current
3	Theoretical	Definition of current, voltage, power
4	Theoretical	Definition of ohmic, inductive and capacitive loads
5	Theoretical	Series, parallel and complex circuits
6	Theoretical	Series, parallel and complex circuits
7	Theoretical	Basic electrical measurements
8	Theoretical	Phase, neutral, protection, earth and zeroing conductors
9	Intermediate Exam	Midterm Examination
10	Theoretical	Conductors and cables used in electrical installation
11	Theoretical	Materials used in electrical installations
12	Theoretical	Lighting devices and types
13	Theoretical	Plugs and types
14	Theoretical	Basic electrical connections
15	Theoretical	Basic electrical failures and elimination
16	Final Exam	Final Examination

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Assignment	2	0	5	10
Midterm Examination	1	5	1	6
Final Examination	1	5	1	6
			Total Workload (Hours)	50
			[Total Workload (Hours) / 25*] = **ECTS**	2
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	Learning electrical information
2	To measure electrical measurement
3	To recognize the electrical equipment materials
4	Making basic electrical connections
5	

Programme Outcomes *(Machinery)*	
1	To be able to know general properties and usage areas of industrial materials and make selection.
2	Design of machine elements.
3	To be able to make production using machining and welding machines without machining.
4	To be able to make measurement and quality control processes with machine tools for measuring and control equipment.
5	To be able to make necessary corrections in order to determine the mistakes by using the necessary non-destructive test methods in welded parts and to eliminate these mistakes.
6	Preventive measures to prevent the occurrence of these faults by preliminarily determining the faults that will occur in the machines as statistical data and to make necessary interventions in case of breakdown.
7	They can make drawings of work pieces on CAD station and apply them on CNC looms. Ability to operate and use CAD / CAM and AUTOCAD package programs.
8	To be able to transfer engineering science and technology to practice by making calculations in the direction of scientific principles.
9	It can repair the elements in pneumatic and hydraulic systems which are indispensable elements of automatic control systems and can regulate their work.
10	The student who is trained as a machine technician during the whole program knows that industrial task definition in the field of work is error finding, problem solving, decision making, planning of functions and activities and they can be achieved by aiming to acquire these characteristics.

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

	L1	L2	L3	L4	L5
P10	1	1	1	1	1