



## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Basic Electrical Knowledge							
Course Code		ELT182		Course 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 )
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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 (Automotive Technology)**

1	To be able to interpret and evaluate data, identify problems, analyze them, and develop evidence-based solutions by using basic knowledge and skills in the field.
2	Must be able to choose and effectively use the modern techniques, tools and information technologies necessary for field related applications.
3	Must be able to gain practical skills by examining relevant processes in industry and service sector on site.
4	They must be able to produce solutions, take responsibility for teams or do individual work when they encounter situations unforeseen in the field related applications.
5	Awareness of the need for lifelong learning; it must be able to follow the developments in science and technology and to constantly renew itself.
6	Must be able to use computer software and hardware at the basic level required by the field
7	Must have job security, worker health, environmental protection knowledge and quality awareness.
8	He must possess a level of foreign language knowledge that is capable of following the innovations in his area of expertise and communication techniques.
9	Must be able to acquire basic theoretical and practical knowledge about the field in mathematics, science and basic engineering.
10	It should have the ability to plan the processes / processes of the Automotive Program to meet the expectations of the sector.
11	To be able to design the systems and components related to the field by using technical drawing, computer aided drawing, designing using simulation programs and using various softwares, to be able to make basic sizing calculations, to be able to master professional plans and projects.

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

	L1	L2
P5	2	2

