



## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Measurement Technique							
Course Code		ELE103		Course 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 to make all kinds of physical and electrical measurements.							
Course Content		All physical measurements, measurement of electrical quantities, measurement errors, unit conversions, measurements with oscilloscope and measurement transformers							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Experiment, Demonstration, Individual Study					
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	Electrical and electronic measurement and safety (Mahmut Nacar)
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Week	Weekly Detailed Course Contents	
1	Theoretical	Length, weight, area and volume measurements
2	Theoretical	Fluid, temperature and slope measurements
3	Theoretical	Cross-section, diameter, speed and rotation measurements
4	Theoretical	Illumination, sound, pressure and stress measurements
5	Theoretical	Moment measurement Measurement and Measurement devices
6	Theoretical	Measurement and Measurement devices, Measurement errors
7	Theoretical	Measurement errors, Units and Conversions
8	Theoretical	Units and Conversions, Resistance measurement
9	Theoretical	Coil measurement, Condenser measurement
10	Theoretical	RLC measurement, Current measurement
11	Theoretical	Voltage measurement, Frequency measurement
12	Theoretical	Measurement with Oscilloscope
13	Theoretical	Measurement transformers
14	Theoretical	Power and energy measurements

### Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	3	42
Lecture - Practice	14	1	1	28
Studio Work	5	1	1	10
Midterm Examination	1	9	1	10
Final Examination	1	9	1	10
Total Workload (Hours)				100
[Total Workload (Hours) / 25*] = ECTS				4
*25 hour workload is accepted as 1 ECTS				

### Learning Outcomes

1	Measuring physical quantities
2	Measuring electrical quantities
3	Knows measurement errors.



4	Measures with oscilloscope.
5	It can measure power and energy.

**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	5	5	5	4	5
P2	2	2	2		3
P3	1	1	1		2
P4					3
P5	2	2	2		2
P6	2	2	3		2
P7	3	3	3		4
P8	2	2	2		2
P9	1	1	1		2
P10					3
P11	3	3	4		4
P12					2
P13	1	1			1
P14					1
P17				4	2
P18	4	4			
P20	3	3			4

