AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Measurement Technique								
Course Code	ELE103		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 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)

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 *(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	5	5	5	5