AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Digital Electronic								
Course Code	ELE211		Couse Level	Short Cycle (Associate's Degree)					
ECTS Credit	2	Workload	50 *(Hours)*	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	In this course, it is aimed to have the students gain the abilities and knowledge about making of basic logic circuits, logic circuits simplification methods, logic circuits, attaining electrical equivalents, building up and operating necessary circuit by making a solution of a given application problem.								
Course Content	Base arithmetics, number systems, logic doors and circuits, karnaugh maps								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Demonstration, Problem Solving								
Name of Lecturer(s)	Ins. İsmail MERSİNKAYA								

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

Recommended or Required Reading	
1	Digital Elektronics(Yılmaz Çamurcu)
2	Logic Circuits (Prof.Dr.Hüseyin Ekiz)

Week	Weekly Detailed Course Contents	
1	Theoretical	Number systems
2	Theoretical	Number systems
3	Theoretical	Logical gate circuits
4	Theoretical	Logical gate circuits
5	Theoretical	Integrated circuit families and technical properties
6	Theoretical	Circuit drawing from logic functions Finding the logic function of a drawn circuit
7	Theoretical	Circuit drawing from logic functions Finding the logic function of a drawn circuit.
8	Theoretical	Boolean Mathematics
9	Theoretical	Boolean Mathematics
10	Theoretical	Karnaugh map
11	Theoretical	Karnaugh map
12	Theoretical	Deriving the logic function of a problem and simplification
13	Theoretical	Forming the time diagram of a problem
14	Theoretical	Building up and operating the logic circuit of a problem

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	1	1	28
Assignment	5	0	1	5
Midterm Examination	1	7	1	8
Final Examination	1	8	1	9
			Total Workload (Hours)	50
			[Total Workload (Hours) / 25*] = **ECTS**	2
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	Making of basic logic circuits,
2	Simplification of logic circuits

3	Solving, building up circuits and operating of the logic problems
4	Karnaugh can edit the map.
5	Can create control circuits with digital logic circuits.

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
P12	5	5	5	5	5
P13	5	5	5	5	5
P14	5	5	5	5	5