AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title		Algorithms and Coding							
Course Code		BDT104		Couse Level		Short Cycle (Associate's Degree)			
ECTS Credit	5	Workload	125 *(Hours)*	Theory	3	Practice	0	Laboratory	0
Objectives of the Course		Devoloping algorithm and writing programs							
Course Content		At the end of the lecture student is going to understand and solve the problem. Defines the problem and express it in his own words. Defines the solutions of the problem and uses the most suitable one. Designs the solution algorithm and flow chart of the problem. Able to simulate the algorithm. Uses various datas to test the algorithm whether it works properly. Expresses the algorithm. Checks the loops and control statements of the algorithm. Produces encoding which is appropriate flow chart. Specifies the scripting language. Tests the encoding andchecks it.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Experiment, Demonstration, Discussion, Case Study, Individual Study, Problem Solving					
Name of Lecturer(s)		Lec. Ahmet Cumhur ÖZTÜRK							

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

Recommended or Required Reading	
1	Algortima ve Programlamaya Giriş – Ebubekir YAŞAR
2	Programlamaya Giriş ve Algortimalar – Doç.Dr.Soner ÇELİKKOL

Week	Weekly Detailed Course Contents	
1	Theoretical	Principles of problem solution
2	Theoretical	Stages of problem solution and algrorithm and flow chart
3	Theoretical	Algorithm and flow chart
4	Theoretical	Determining the critical points.
5	Theoretical	Application
6	Theoretical	Defining a problem
7	Theoretical	The rules of writng code
8	Theoretical	Variables
9	Theoretical	Control Satements
10	Theoretical	Loops
11	Theoretical	Application
12	Theoretical	Starting the programs
13	Theoretical	Testing the programs
14	Theoretical	Application

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	1	2	42
Assignment	6	3	1	24
Term Project	1	8	2	10
Laboratory	5	2	3	25
Midterm Examination	1	11	1	12

Final Examination	1	11	1	12
			Total Workload (Hours)	125
			[Total Workload (Hours) / 25*] = **ECTS**	5
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	Learning general concepts related to programming
2	Understand the concept of the algorithm,understand how to create algorithms and understand structural programming.
3	With its structural features and powerful possibilities which each programmer must be aware the programming language C / C + + basic features are to be learned associated with the concept of algorithm
4	Ability to code in basic level
5	Finding relavent solutions for a given problem and selecting the best fitting one

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
P1	5	3	2	4	2
P2	3	2	3	3	3
P3	2	1	1	2	1
P4	1	4	4	1	2
P5	4	3	3	4	3
P6	3	2	2	5	4
P7	2	1	1	3	5
P8	1	3	3	2	3
P9	4	5	2	1	2
P10	3	4	4	4	1
P11	2	2	5	3	3
P12	1	3	2	2	1
P13	3	1	3	1	2
P14	2	2	2	3	3
P15	4	3	1	4	1

P16	5	4	3	2	2
P17	3	5	2	3	3
P18	2	3	4	4	4
P19	1	5	3	5	5
P20	3	1	2	1	2