AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Algorithms and Programming								
Course Code	BPR181		Couse Level	Short Cycle (Associate's Degree)					
ECTS Credit	2	Workload	50 *(Hours)*	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	This course is designed to teach algorithm and coding concepts.								
Course Content	Algorithms, Flowchart, Coding tools, Variables and constants, Input/output operations, Operators, decision algorithms, loop controls,unidimensional arrays, multi-dimensional arrays, Void sub-programmes, Non-void sub-programmes								
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)									

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

Recommended or Required Reading	
1	Visual Studio 2011, M.Mastar, Kodlab Yayınevi.
2	C#.net İle Nesne Tem. Prog. Giriş, Ö.Sebetci, Gazi Yayınevi.
3	Introduction to programming and algorithms Soner Çelikkol Murathan Yayın

Week	Weekly Detailed Course Contents	
1	Theoretical	.Algorithms
2	Theoretical	Flowchart
3	Theoretical	Coding tools
4	Theoretical	Variables and constants
5	Theoretical	Input/output operations
6	Theoretical	Operators
7	Theoretical	Decision algorithms
8	Theoretical	Loop control
9	Intermediate Exam	Midterm exam
10	Theoretical	Loop control
11	Theoretical	One-dimensional arrays
12	Theoretical	Multi-dimensional arrays
13	Theoretical	Void sub-programmes
14	Theoretical	Non-void sub-programmes
15	Theoretical	Non-void sub-programmes
16	Final Exam	Final exam

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Term Project	1	0	4	4
Laboratory	5	0	1	5
Reading	3	0	1	3
Midterm Examination	1	4	1	5

Final Examination	1	4	1	5
			Total Workload (Hours)	50
			[Total Workload (Hours) / 25*] = **ECTS**	2
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	Introduction to coding and designing program flowchart
2	Control statements, array operations and working with sub-programmes
3	Learns the concept of everyday life like algorithms, with examples from everyday life.
4	Understands the components and their uses.
5	Learns the basic properties of Visual Basic.

Programme Outcomes *(Machinery)*	
1	To be able to know general properties and usage areas of industrial materials and make selection.
2	Design of machine elements.
3	To be able to make production using machining and welding machines without machining.
4	To be able to make measurement and quality control processes with machine tools for measuring and control equipment.
5	To be able to make necessary corrections in order to determine the mistakes by using the necessary non-destructive test methods in welded parts and to eliminate these mistakes.
6	Preventive measures to prevent the occurrence of these faults by preliminarily determining the faults that will occur in the machines as statistical data and to make necessary interventions in case of breakdown.
7	They can make drawings of work pieces on CAD station and apply them on CNC looms. Ability to operate and use CAD / CAM and AUTOCAD package programs.
8	To be able to transfer engineering science and technology to practice by making calculations in the direction of scientific principles.
9	It can repair the elements in pneumatic and hydraulic systems which are indispensable elements of automatic control systems and can regulate their work.
10	The student who is trained as a machine technician during the whole program knows that industrial task definition in the field of work is error finding, problem solving, decision making, planning of functions and activities and they can be achieved by aiming to acquire these characteristics.

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

	L1	L2	L3	L4	L5
P9	2	2	2	2	2