



## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Professional Mathematics							
Course Code		BPR111		Course Level		Short Cycle (Associate's Degree)			
ECTS Credit	3	Workload	75 (Hours)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course		The aim of this course is to give information about mathematical operations that are used in computer science with basic math knowledge. To gain the competence to apply the mathematical knowledge and skills required for the profession to the work.							
Course Content		Within the scope of the course, the historical development of Basic Computer Systems, Number Systems, Type Conversions, Mathematical Operations on Systems, Function and Matrix topics will be covered with examples and their importance and usage areas on computer systems will be examined.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Individual Study, Problem Solving					
Name of Lecturer(s)		Ins. Neslihan BİLİNMEZ							

### Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	70

### Recommended or Required Reading

1	Mathematics for Schools and Vocational Schools Altın Nokta Publications Gültekin Tınaztepe 2015
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Week	Weekly Detailed Course Contents	
1	Theoretical	Historical Development of Basic Computer Systems
2	Theoretical	Number Systems
3	Theoretical	Number Systems
4	Theoretical	Number Systems in Computer Science
5	Theoretical	Modular Arithmetic
6	Theoretical	Modular Arithmetic
7	Theoretical	Binary Number Systems
8	Theoretical	Hexadecimal Number Systems
9	Intermediate Exam	Midterm Exam
10	Theoretical	ASCII Code Table
11	Theoretical	Mathematical Operations on Number Systems
12	Theoretical	Mathematical Operations on Number Systems
13	Theoretical	Functions
14	Theoretical	matrices
15	Theoretical	matrices
16	Final Exam	Final Exam

### Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	2	2	56
Assignment	1	6	1	7
Midterm Examination	1	5	1	6
Final Examination	1	5	1	6
Total Workload (Hours)				75
[Total Workload (Hours) / 25*] = ECTS				3
*25 hour workload is accepted as 1 ECTS				

### Learning Outcomes

1	To comprehend basic mathematical knowledge
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2	To understand the importance of mathematics in computer history
3	To make applications about number systems in their profession
4	To examine the usage areas of functions in their profession and make applications
5	To examine the usage areas of matrices and make applications in their profession

**Programme Outcomes (Computer Programming)**

1	Having knowledge and skills in web project preparation and publishing
2	Having the knowledge and skills necessary for proper use management of database applications
3	Having knowledge and skills for software development, testing and installation
4	Be able to use the hardware necessary for computer programming and solve the basic problems they have with hardware
5	To be able to use information and communication technologies at the level required by computer programming
6	To be able to produce solutions to problems encountered in the field
7	Having the competencies to make job planning in the profession
8	Communicating with colleagues and clients based on knowledge and skills
9	Be able to take responsibility as an individual or as a team member and to fulfill the responsibility
10	To be able to express written and oral expressions related to the study topic
11	Be able to adapt the winning information to new situations

**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	1	1	1	1	1
P2	1	1	1	1	1
P3	1	1	1	1	1
P4	1	1	1	1	1
P5	2	1	1	1	1
P6	2	4	4	4	4
P7	1	1	1	1	1
P8	2	2	2	2	2
P9	1	1	1	1	1
P10	4	3	3	3	3
P11	4	4	4	4	4

