



## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		General Mathematics I							
Course Code		MAT173		Couse Level		First Cycle (Bachelor's Degree)			
ECTS Credit	5	Workload	127 ( <i>Hours</i> )	Theory	3	Practice	0	Laboratory	0
Objectives of the Course		The aim of the course is to give knowledge about relation, function, limit, continuity and derivation in order to construct a basic mathematical structure, and to gain the ability of thinking rationally for solving problems.							
Course Content		Sets and numbers, line equations in the coordinate system, some special functions, limit and continuity, derivation							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Discussion, Individual Study, Problem Solving					
Name of Lecturer(s)		Ins. Nihal GÜNEL, Lec. Ahmet ÜNLÜ							

### Assessment Methods and Criteria

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

### Recommended or Required Reading

1	Kenneth A. Ross, Elementary Analysis: The Theory of Calculus, Springer-Verlag(1980)
2	Çoker ., Özer O., Taş K. "Genel Matematik", Cilt 1 (1996)
3	Thomas, G.B. and Finney, R.L., "Calculus and Analytic Geometry", 9th ed., Addison Wesley, (1998)
4	Prof.Dr.Mustafa Balcı "Genel Matematik I" Balcı Yayınları
5	Doç.Dr.Cevdet Cerit, "Yüksek Matematik I"

Week	Weekly Detailed Course Contents	
1	Theoretical	Sets
2	Theoretical	Numbers and Functions
3	Theoretical	Coordinates in plane and line equations
4	Theoretical	Properties of functions
5	Theoretical	Limit and its properties
6	Theoretical	Indeterminate forms at limits(Uncertainty of limits.)
7	Intermediate Exam	Midterm exam
8	Theoretical	Continuity
9	Theoretical	Definition of derivation and derivation rules
10	Theoretical	Tangent line of a curve
11	Theoretical	Derivation of Special Functions
12	Theoretical	Theorems on derivatives
13	Theoretical	Theorems on derivation and geometrical interpretation of derivation
14	Theoretical	Problems of maximum and minimum
15	Theoretical	Graphing a curve
16	Final Exam	Final Exam

### Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	4	3	98
Midterm Examination	1	10	2	12



Final Examination	1	15	2	17
Total Workload (Hours)				127
[Total Workload (Hours) / 25*] = <b>ECTS</b>				5
*25 hour workload is accepted as 1 ECTS				

### Learning Outcomes

1	Ability to understand definition of sets
2	Ability to draw the line equations in the coordinate system
3	Ability to understand the definition of functions and to understand some special functions
4	Ability to interpret limit and continuity of functions at given points
5	Ability to find derivation of given function at a point

