



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Mathematics For Economics I							
Course Code		İKT107		Couse Level		First Cycle (Bachelor's Degree)			
ECTS Credit	4	Workload	100 (<i>Hours</i>)	Theory	3	Practice	0	Laboratory	0
Objectives of the Course		To introduce the basic mathematical tools to the students and also to provide the ability of systematic and analytic approach to the problems.							
Course Content		Algebra, Equations, Induction, Functions with One Variable, General Properties of Functions and Graphs, Limit and Continuity, Simple Rules of Deriving, Exponential and Logarithmic Functions, Optimization, Plot the Graphs of Functions, Economic Applications.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Individual Study					
Name of Lecturer(s)		Lec. Yılmaz ERDEM							

Assessment Methods and Criteria

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

Recommended or Required Reading

1	Sydsaeter K. ve Hammond P. (2004), Ekonomik Analiz İçin Temel Matematik, Turhan Kitabevi, Ankara
2	Chiang, A. C. (2003), Matematiksel İktisadın Temel Yöntemleri, Teori Yayınları, Ankara

Week	Weekly Detailed Course Contents	
1	Theoretical	Discussion About the Function of Mathematics (An Example)
2	Theoretical	Algebra: Numbers, Inequalities and Absolute Value
3	Theoretical	Equations: Linear and Nonlinear Equations, Parametric Equations, Economic Equilibrium, Partial Market Equilibrium
4	Theoretical	Functions with One Variable: Polynomial, Exponential, Logarithmic and Trigonometric functions, Power and Absolute Value Functions
5	Theoretical	Functions with One Variable: Polynomial, Exponential, Logarithmic and Trigonometric functions, Power and Absolute Value Functions
6	Theoretical	General Properties of Functions and Graphs
7	Theoretical	Comparative Statistics and Derivative: Slope, Increasing and Decreasing Functions, Limit and Continuity
8	Intermediate Exam	Midterm Exam
9	Theoretical	Comparative Statistics and Derivative: Simple Rules of Deriving Usage at Comparative Statistics
10	Theoretical	Optimization: Special Type of Equilibrium Analysis, Extremum Values, Second and Higher Order Derivatives
11	Theoretical	Optimization: Special Type of Equilibrium Analysis, Extremum Values, Second and Higher Order Derivatives
12	Theoretical	Uncertainty, Limit and Asymptotes
13	Theoretical	Graphs of Functions
14	Theoretical	Graphs of Functions
15	Theoretical	Several applications
16	Theoretical	Final

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	9	2	3	45
Individual Work	12	1	2	36
Midterm Examination	1	8	1	9



Final Examination	1	9	1	10
Total Workload (Hours)				100
[Total Workload (Hours) / 25*] = ECTS				4
*25 hour workload is accepted as 1 ECTS				

Learning Outcomes

1	To be able to compose functions utilizing from certain economic variables
2	To be able to constitute systems of equation (economic model) by means of these functions
3	To be able to use mathematical tools such as derivative and limit
4	To be able to interpret and analyse economic optimisation processes
5	To be able to make mathematical explanations of economic variable

Programme Outcomes (Economics)

1	To be able to understand and interpret the concepts, theories and methods of basic economics
2	To be able to apply mathematical, statistical and econometric analysis tools to economic problems
3	To be able to interpret the structure and characteristics of the markets in the economy by understanding the current economic events
4	To be able to define the role of innovation, creativity and technology concepts in the dynamic global economy.
5	To be able to prepare projects and to gain creativity skills
6	To be able to analyze macro and micro economic activities.
7	To be able to adapt the philosophy of lifelong learning

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	4	4	4	4	5
P2	5	4	5	3	5
P3	4	5	4	4	4
P4	5	4	5	3	4
P5	4	5	4	4	4
P6	5	4	3	4	4
P7	4	5	4	3	4

