



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Commercial Mathematics							
Course Code		UTIF100		Course Level		First Cycle (Bachelor's Degree)			
ECTS Credit	4	Workload	106 (<i>Hours</i>)	Theory	3	Practice	0	Laboratory	0
Objectives of the Course		The aim of this course is to provide students with knowledge about basic mathematics and basic concepts of commercial mathematics and to gain problem solving and interpretation skills.							
Course Content		Basic concepts of mathematics, Numbers, Exponential and radical multiplicities, factorization, Equations and their solutions, linear equations, Functions, Graphs of quadratic functions, graphs of rational functions and piecewise functions, Exponential and Logarithmic Functions, Logarithm and Its Use in Commercial Mathematical Problems, Limit and Continuity, Use of Derivative, Rules of Differentiation, Sequential Derivative, Maximum and Minimum points, decreasing and increasing intervals, Applications of derivative in commercial problems, Profit maximization, Cost minimization, Ratio-Proportion, Properties of Proportion, Types of Proportion, Concept of Percent and Thousand, Calculations of Purchase, Cost, Sales and Profit, Proportional Division and Calculations Related to Commercial Enterprises, Mixture, Composition and Alloy, Time Value of Money and Simple Interest, Simple Discount							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Problem Solving					
Name of Lecturer(s)		Assoc. Prof. Gülşah SEZEN AKAR							

Assessment Methods and Criteria

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

Recommended or Required Reading

1	Mahmut Tekin ve Mehmet Yıldız, İşletme İktisat ve Sosyal Bilimlerde Matematik, Günay Ofset, Konya, 2012.
2	Mustafa Sevüktekin, Zehra Başkaya, Matematiksel Analiz: İşletme ve Ekonomi Uygulamaları, Dora Yayıncılık, Bursa, 2010
3	İrfan Ertuğrul, Temel Matematik Ekin Yayınları, 2015.
4	Ertuğrul Çetiner, Ticari ve Mali Matematik, Gazi Kitabevi, 2010.
5	Nurhan Aydın ve Metin Coşkun, Ticari Matematik, Detay Yayıncılık, 2016.

Week	Weekly Detailed Course Contents	
1	Theoretical	Basic concepts of mathematics, Numbers, Exponential and radical multiplicities.
2	Theoretical & Practice	Factorization
3	Theoretical	Equations and their solutions, linear equations,
4	Theoretical	Functions, Second graphs of order functions
5	Theoretical	Rational functions and graphs of piecewise functions, Exponential and Logarithmic Functions
6	Theoretical	Use in Logarithms and Commercial Mathematics
7	Theoretical	Use in Logarithms and Commercial Mathematics
8	Intermediate Exam	Midterm
9	Theoretical	Limit and Continuity
10	Theoretical	Use of derivative, Maximum and minimum points, decreasing and increasing intervals, Applications of derivative in commercial problems
11	Theoretical	Profit maximization, Cost minimization
12	Theoretical	Ratio- Proportion, Properties of Proportion, Types of Proportion, Concept of Percent and Thousand
13	Theoretical	Purchase, Cost, Sales and Profit Calculations, Proportional Division and Calculations Related to Commercial Enterprises, Mixture, Composition and Alloy
14	Theoretical	Time Value of Money and Simple Interest
15	Theoretical	Simple Discount
16	Theoretical	Final Exam



Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	15	2	4	90
Midterm Examination	1	7	1	8
Final Examination	1	7	1	8
Total Workload (Hours)				106
[Total Workload (Hours) / 25*] = ECTS				4
*25 hour workload is accepted as 1 ECTS				

Learning Outcomes

1	Developing numerical knowledge-skills and gaining analytical thinking skills
2	Providing a basis for mathematical methods to be used in subjects such as research and evaluation
3	Helping to facilitate the calculations and researches required in business life
4	Identifying the problems of commercial enterprises and finding solutions by using numerical data and graphics.
5	To have knowledge about the concept of time value of money, to be able to calculate and interpret interest and discount

Programme Outcomes (International Trade and Finance)

1	To become individuals having high intellectual capacity, improved social skills, positive thinking, the ability to adapt to different environments and institutions
2	To have technical equipment, flexible thinking and action ability and multiple language skills to be capable of working in international platforms
3	To be able to utilize the basic knowledge they obtained with an interdisciplinary approach to business, economics, etc. in creating expertise in the fields of International Trade and Finance in accordance with the requirements of the globalized business world
4	To develop suggested solutions and recommendations by informing the people and institutions predicting regional, national and international problems in the fields of international trade and finance with a proactive approach
5	To possess the ability of analytical thinking and the ability to synthesize with quantitative proficiency as required in the program
6	To have the characteristics to inquire and investigate the knowledge and skills acquired during the education process in relation to the requirements of existing market conditions
7	To identify and analyze the validity of theories related to the international trade and finance and their relationships regarding current conditions
8	To possess the knowledge of a second foreign language to the extent of their individual abilities, besides the competency in the English language to be able to communicate effectively
9	To have the qualifications of managing and being managed to solve existing and potential problems encountered in practice
10	To be able to organize activities that will contribute to the personal and professional development of the employees in the department where he/she holds an executive position

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	3	4	2	2	4
P2	3	3	2	2	3
P3	3	2	3	3	3
P4	3	2	4	4	4
P5	2	3	4	4	3
P6	3	3	4	3	3
P7	4	4	2	3	3
P8	4	4	3	4	3
P9	5	5	4	4	4
P10	4	5	3	4	5

