



## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Quantitative Methods in Finance							
Course Code		UTIF403		Couse Level		First Cycle (Bachelor's Degree)			
ECTS Credit	5	Workload	122 ( <i>Hours</i> )	Theory	3	Practice	0	Laboratory	0
Objectives of the Course		The aim of the course is to enable students to analyze and model complex business and business problems, and to develop the models using different techniques, to interpret the solution and present it to the decision-makers.							
Course Content		In this course, problem modeling, linear programming, graphical solution, simplex method, assignment problems, transportation problems and finding solutions to all of these by using MS Excel and analyzing the effects of these results on decision making will be discussed.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation)					
Name of Lecturer(s)		Lec. Bilge DOĞANLI							

### Assessment Methods and Criteria

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

### Recommended or Required Reading

1	Operations Research - Prof. Dr. Ahmet Öztürk - EKİN KİTABEVİ YAYINLARI
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Week	Weekly Detailed Course Contents	
1	Theoretical	Definition and history of Operations Research
2	Theoretical	Modeling with Linear Programming
3	Theoretical	Modeling and Solution with Graphic Method
4	Theoretical	Modeling and Solution with Graphic Method
5	Theoretical	Simplex Method
6	Theoretical	Simplex Method
7	Theoretical	Shadow Price and Sensitivity Analysis
8	Intermediate Exam	Midterm Exams
9	Theoretical	Shadow Price and Sensitivity Analysis
10	Theoretical	Transportation Models
11	Theoretical	Transportation Models
12	Theoretical	Transportation Models
13	Theoretical	Assignment Models
14	Theoretical	Assignment Models
15	Final Exam	Final Exams

### Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	2	3	70
Midterm Examination	1	20	1	21
Final Examination	1	30	1	31
Total Workload (Hours)				122
[Total Workload (Hours) / 25*] = ECTS				5

\*25 hour workload is accepted as 1 ECTS

### Learning Outcomes

1	Recognize, understand and solve problems.
2	Building appropriate models,
3	Recognize operations research techniques and determine which problem can be used



4	Ability to recognize and solve complex business problems with systematic thinking methods,
5	The aim of this course is to provide the students with the ability to interpret the solutions from the perspective of the operator and use them for decision support.

**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	2	3	2	1	3
P2	3	3	2	2	3
P3	3	3	5	5	2
P4	3	4	5	3	1
P5	4	4	5	3	2
P6	4	3	3	3	2
P7	3	3	4	3	3
P8	3	3	3	3	3
P9	3	2	3	3	2
P10	5	3	3	5	2

