



## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Game Theory							
Course Code		ECO427		Course Level		First Cycle (Bachelor's Degree)			
ECTS Credit	6	Workload	150 ( <i>Hours</i> )	Theory	3	Practice	0	Laboratory	0
Objectives of the Course		Game theory is a way of thinking in the strategic situation. The aim of the course is decision of making to teach students some strategic considerations to take into account necessary.							
Course Content		Development of Game Theory, Applications of Game Theory, Classification of Games, Two -person Zero-Sum Games, Nash Equilibrium, Consecutive Games, Repeated Games .							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Discussion, Individual Study					
Name of Lecturer(s)									

### Prerequisites & Co-requisites

ECTS Requisite	105
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### Assessment Methods and Criteria

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

### Recommended or Required Reading

1	Ensar YILMAZ, Oyun Teorisi, Literatür Yayıncılık, 2012.
2	Davis D. MORTON, Game Theory: A Nontechnical Introduction, Dover, 1997.

Week	Weekly Detailed Course Contents	
1	Theoretical	Development of Game Theory, Applications of Game Theory, Classification of Games
2	Theoretical	Strategic Decisions: Put yourself in someone else instead
3	Theoretical	Creating Return Matrix
4	Theoretical	Two -person Zero-Sum Games, Dominant Strategies, Passive Strategies
5	Theoretical	Minimax Theorem and Mixed Strategies
6	Theoretical	Two -person Non- Zero-Sum Games
7	Theoretical	Nash Equilibrium
8	Intermediate Exam	Midterm Examination
9	Theoretical	Prisoners Dilemma
10	Theoretical	Consecutive Games
11	Theoretical	Communication, Move Order, Strategic moves, Threats, Binding Agreements, Side Payments
12	Theoretical	Communication, Move Order, Strategic moves, Threats, Binding Agreements, Side Payments
13	Theoretical	Repeated Games: Cooperation, Betrayal, Criminal
14	Theoretical	Asymmetric Information: Procurement and Winner's Curse
15	Theoretical	General Assessment
16	Final Exam	Final Examination
17	Final Exam	Final Examination

### Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	3	42
Reading	14	0	1	14
Individual Work	14	0	4	56
Midterm Examination	1	15	1	16



Final Examination	1	21	1	22
Total Workload (Hours)				150
[Total Workload (Hours) / 25*] = ECTS				6
*25 hour workload is accepted as 1 ECTS				

### Learning Outcomes

1	Can explain the concept balance of major game theory.
2	Can make simultaneous and inferences about the results of consecutive games.
3	Can model strategic interaction of the companies in the context of Oligopoly
4	Develop strategy for competitiveness at firm and industry level.
5	Apply productivity and efficiency measurement techniques at a limited level depending on the literature.

### Programme Outcomes (Economics)

1	It defines and evaluates the basic economic concepts, theories, and methods.
2	It offers a basic level of policy proposals towards current economic problems.
3	It analyzes in the context of economic and social events in a historical perspective.
4	It explains the role of economic actors (such as government, company, or household) in the economy.
5	It follows national and international economic indicators and developments and it uses economic knowledge and methods in different areas.
6	It provides methods, tools and techniques necessary for the modelling and analysis of economic data and evaluates outcomes accordingly.
7	It defines economic systems, decision-making, policies and problems and it provides feedback about them.
8	It benefits from other disciplines that contribute to economic basis and holds a basic knowledge of these disciplines.
9	It explains and comments on economic growth, development and productivity problems on basic grounds.
10	It provides sufficient know-how in sub-branches such as public economics, industry, agriculture, environment and natural resources, labor, knowledge and ownership of the economy, international finance, money, in political economy and econometrics.
11	It defines and evaluates the concept of business on basic grounds.
12	It provides a sufficient level of legal know-how that may be demanded from high skill labor in both public and private sectors.
13	It defines the role of innovation, creativity and technology in the dynamic global economy.
14	It shows skills that will be useful for future employment opportunities and the working environment.
15	It considers science as a rational individual with professional and ethical responsibility.

### Contribution of Learning Outcomes to Programme Outcomes 1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High

	L1	L2	L3
P1	3	3	3
P2	4	3	4
P4	3	4	3
P7	3	3	3
P13	3	2	3
P15	2	1	2

