



## ECTS COURSE INFORMATION FORM

<b>School/Faculty/Institute</b>	Faculty of Economics and Administrative Sciences		
<b>Program</b>	B.A. in Economics	Required	

<b>Course Code</b>	ECON 206			
<b>Course Title in English</b>	GAME THEORY			
<b>Course Title in Turkish</b>	OYUN KURAMI			
<b>Language of Instruction</b>	English			
<b>Type of Course</b>	Lecture (Flipped Classroom)			
<b>Level of Course</b>	Undergraduate - Introductory			
<b>Semester</b>	Spring			
<b>Contact Hours per Week</b>	Lecture: 3	Recitation: 0	Lab: 0	Other: 0
<b>Estimated Student Workload</b>	133 hours per semester.			
<b>Number of Credits</b>	5 ECTS			
<b>Grading Mode</b>	Standard letter grade			
<b>Pre-requisites</b>	MATH 103			
<b>Expected Prior Knowledge</b>	Knowledge of mathematical, and statistical concepts and tools			
<b>Co-requisites</b>	None			
<b>Registration Restrictions</b>	Only Undergraduate Students			
<b>Overall Educational Objective</b>	The learners will study the theory of static and dynamic games with complete and incomplete information.			
<b>Course Description</b>	This course covers topics of game theory, including static and dynamic games with complete and incomplete information, Nash, Bayesian Nash, and Perfect Bayesian Equilibrium.			
<b>Course Description in Turkish</b>	Bu ders Oyun Kuramı'ndaki bazı konuları kapsar. İçerdiği konular tümel ve tikel bilgi altında statik ve dinamik oyunları, Nash, Bayesian, ve Perfect Bayesian Equilibrium şeklindedir.			
<b>Course Learning Outcomes and Competences</b>	Upon successful completion of the course, the learner is expected to be able to: <ul style="list-style-type: none"><li>• comprehend the basic concepts of game theory;</li><li>• model real-life like conflict of interest situations as a game, and analyze them;</li><li>• apply methods to determine equilibrium in games;</li><li>• relate concepts of Game Theory with possible economic and business applications that involve strategic thinking.</li></ul>			

Relation to Program Outcomes and Competences: N=None S=Supportive H=Highly Related		
Program Outcomes and Competences	Level	Assessed by
	N/S/H	Exam, Project, HW, Lab, Presentation, etc.
1. Has a broad understanding of economics with a deep exposure to other social sciences and mathematics.	H	Quizzes, Flipped Learning Activities
2. Demonstrates knowledge and skills in understanding the interactions of different areas of economics.	N	
3. Displays a sound comprehension of microeconomic and macroeconomic theory.	N	
4. Applies economic concepts to solve complex problems and enhance decision-making capability.	S	Flipped Learning Activities
5. Uses quantitative techniques to analyze different economic systems.	S	Flipped Learning Activities
6. Applies theoretical knowledge to analyze issues regarding Turkish and global economies.	N	
7. Demonstrates proficiency in statistical tools and mainstream software programs to process and evaluate economic data.	N	
8. Behaves according to scientific and ethical values at all stages of economic analysis: data collection, interpretation and dissemination of findings.	N	
9. Uses written and spoken English effectively (at least CEFR B2 level) to exchange scientific information.	S	Flipped Learning Activities
10. Exhibits individual and professional ethical behavior and social responsibility.	N	
11. Displays learning skills necessary for further study with a high degree of autonomy	S	Flipped Learning Activities
Prepared by and Date	Prof. Dr. Firat Bilgel, 15.01.2021	
Semester	Spring 2022-2023	
Name of Instructor	Prof. Dr. Firat Bilgel	
Course Contents	Week	Topic
	1.	Introduction
	2.	Pure Strategy Games
	3.	Pure Strategy Games
	4.	Mixed Strategy Games
	5.	Mixed Strategy Games
	6.	Further Solution Concepts
	7.	Games of Perfect Information
	8.	Games of Perfect Information
	9.	Games of Imperfect Information
	10.	Repeated Games
	11.	Bayesian Games
	12.	Bayesian Games
	13.	Bayesian Games
	14.	Perfect Bayesian Equilibrium, Signaling Games
	15.	Final Examination Period
	16.	Final Examination Period
	Gibbons, R. A Primer in Game Theory. Prentice Hall, 1992 Spaniel, W. Game Theory 101: The Complete Textbook. CreateSpace Independent Publishing Platform, 2011 Osborne, M.J.; Rubinstein, A. A Course on Game Theory, The MIT Press, 1994 Kockesen, L.; Ok, E.A. An Introduction to Game Theory, 2007	

Required/Recommended Readings	Leyton-Brown, K.; Shoham, Y. Essentials of Game Theory: A Concise, Multidisciplinary Introduction, Morgan & Claypool, 2008 Rosenthal, E.C. (2011) The Complete Idiot's Guide to Game Theory: The Fascinating Math Behind Decision-Making. Alpha Publishing
Teaching Methods	Lectures (Flipped Learning)
Homework and Projects	None
Laboratory Work	None
Computer Use	None
Other Activities	Scheduled and unscheduled quizzes
Assessment Methods	<ul style="list-style-type: none"> <li>Attendance (10%)</li> <li>Active Participation (10%)</li> <li>Weekly flipped learning activities (10%)</li> <li>Quizzes (20%)</li> <li>Midterm (20%)</li> <li>Final (30%)</li> </ul>
Course Administration	<p><b>Course Instructor:</b> Prof. Dr. Firat Bilgel – <a href="mailto:bilgelf@mef.edu.tr">bilgelf@mef.edu.tr</a></p> <p><b>Attendance/participation:</b> Students are expected to prepare for the lecture via assigned videos and reading materials. Students are responsible to follow the announcements, course materials available on Blackboard system.</p> <p><b>Formal use of e-mails:</b> Students are expected to use their @mef accounts for email traffic. The instructor is only responsible for the information sent/received through Blackboard system and emails using @mef account. The course instructor assumes that any information sent through email will be received in 24 hours, unless a system problem occurs.</p> <p><b>Grading and evaluation:</b> Evaluation will be based on the student learning outcomes. It is strongly recommended to complete all the work in a timely fashion. Late submissions will not be accepted.</p> <p><b>Missing midterm exam:</b> No make up unless a legitimate proof of absence is presented.</p> <p><b>Missing quizzes:</b> No Quiz Exam/No make up</p> <p><b>Academic integrity:</b> All students of MEF University are expected to be honest and comply with academic integrity. Students are expected to do their own work and neither give nor receive unauthorized assistance. Disciplinary action will be taken in case of suspicion.</p> <p>Improper behavior, academic dishonesty and plagiarism: YÖK Disciplinary Regulation</p> <p><b>IMPORTANT:</b> Minimum of 70% attendance is required to pass this course! This means, if you miss 5 lectures with or without an excuse, you cannot take the final exam and will get an FZ. (MEF Üniversitesi Lisans ve Önlisans Eğitim-Öğretim Yönetmeliği Madde 24).</p>

ECTS Student Workload Estimation	Activity	No/Weeks	Hours			Calculation	Explanation
		No/Weeks per Semester (A)	Preparing for the Activity (B)	Spent in the Activity Itself (C)	Completing the Activity Requirements (D)		
	Lecture	14	5	3	1	126	A*(B+C+D)
	Lab etc.					0	
	Midterm(s)					0	A*(B+C+D)
	Assingment, Project, Presentation	14		0.5		7	A*(B+C+D)
	Final Examination					0	A*(B+C+D)
	Total Workload					133	
	Total Workload/25					5.32	
	ECTS					<b>5</b>	