Course Profile - Department of Economics

Course Number : **ECO 330**	Course Title : **Game Theory**
Required / Elective : **Elective**	Co-requisites : MAT101, MAT103, ECO101
Catalog Description: Introduction to game theory. Basic definitions and concepts. Dominant strategy. Nash equilibrium. Cooperation and coordination. Static games in perfect information. Dynamic games in perfect information. Static games in imperfect information. Dynamic games in imperfect information. Repeating games. Economic contracts. Stable macroeconomic policy and Coase theorem. Cournot and Bertrand duopoly. Strategic trade policy. Limit pricing. Cartel..	Textbook / Required Material : Avinash K. Dixit and Susan Skeath, (2004) Games of Strategy, 2nd ed., W.W.Norton & Company.

Course Structure / Schedule : 3+0+0 **/ 6 ECTS**

Extended Description :
Any adequate understanding of group choice or action must be ultimately reducible to an understanding of the choices that individual human beings make. Game theory is the branch of decision sciences that seeks to explore how people make decisions if their actions and the outcome of their actions depend on the actions of others. This interdependence in actions implies that people make choices strategically. In activities from giving gifts, to political wheeling and dealing, from setting a grade distribution to effective bargaining, men and women strive ingeniously, though sometimes counterproductively, to secure desired outcomes. Game theory, the theory of interdependent choice is a central theoretical apparatus in economics, political science, law, anthropology, accounting and management science. "Games" have been a scientific metaphor for a much wider range of human interactions in which the outcomes depend on the interactive strategies of two or more persons, who have opposed or, at best, mixed motives.

Design content : None	Computer usage: Minimal

Course Outcomes:
By the end of this course, students will be able to:

1. To comprehend and apply fundamental economic concepts in strategic decision making contexts **[1,8]**

2. Apprehending the professional and ethical responsibilities when faced with dilemmas between mutual gain and individual gain, between self interest and public good. Address the question to see if moral rules of cooperation can emerge spontaneously from the interactions of rational egoists **[5]**

3. Comprehend problems of mutual interdependence and make inferences on solutions applying calculus and other numerical methods.**[6]**

Relevant Program Outcomes

  1. To comprehend fundamental economic concepts, to be able to utilize those in main economic problems, avoid mistakes as employee, employer, consumer and citizen due to common misconceptions regarding fundamental economic concepts

  5. Apprehending the professional and ethical responsibilities

  6. Apply statistical methods, calculus and similar methods in data analysis, Comprehend

problems on humanities and social sciences and make inferences on solutions		
8. Ability to model the equilibrim dynamics in markets, analyze, abstract, sythnesize and interpret information		

Recommended reading: Mehmet Emin Karaaslan, *Balıkçı Emin Emmi'den Mikroiktisat Mektupları*, 2008, Cinius Yayınları.

Teaching methods

Lecture, in class discussions, problem sessions

Assessment methods:

Quizzes+Attendance + in class participation: 20 %

Midterms: 40 %

Final Examination: 40 %

Student Workload/ECTS (European Credit Transfer System) Tableau:

Activity:	Number:	Total Workload (hour):
Pre-class reading	14	30
Lectures	14	45
Reading	14	45
Quizzes+Assignments + in class participation 10		25
Exams	3	5

TOTAL 150 hrs/25 = 6 ECTS

Prepared by : MEK	Revision Date : 2/11/2010