

Department of Economics and Finance

COLLEGE OF MANAGEMENT ANDECONOMICS

CHANGING LIVES IMPROVING LIFE

ECON*6090 Game Theory Fall 2013

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It is your responsibility as a student to be aware of and to abide by the University's policies regarding academic misconduct, e-mail communication, maintaining copies of out-of class assignments, what to do when you cannot meet a course requirement and the drop date for this semester. To better understand these policies, visit:

http://www.uoguelph.ca/economics/node/1115

COURSE DESCRIPTION:

This course introduces the student to game theory, which is an important tool for modeling economic situations with multi-person interaction. Apart from oligopoly, which is the obvious application for game theory, other applications in economics include bargaining, auctions, and public goods provision. In order to understand the even broader applicability of game theory other examples such as parlour games, war games, voting and candidate strategy will also be included. Students should be very familiar with optimization and single person decision-making, since equilibrium in a game basically entails optimization by all players at once.

Required Textbook

A Course in Game Theory (OR) Martin J. Osborne and Ariel Rubinstein, MIT Press 1994.

On-line full text version can be found at: http://theory.economics.utoronto.ca/books/

Supplementary textbook

An introduction to Game Theory (O) Martin J. Osborne, Oxford University Press, 2004.

COURSE REQUIREMENTS:

There will be one mid-term exam, some assignments, and a final. The dates and relative weights on these requirements are as follows:

Assignments	Dates TBA	20%
Midterm Exam	Date: October 28 th	30%
Total Term Work		50%
Final	ТВА	50%

IMPORTANT NOTES:

1. e-mail protocol: I am happy to receive queries by email. However, please note that the subject line must contain ECON*6090, and you must use your U of G account, otherwise the email will be deleted. Restrict messages to questions about course content and requests for an appointment only. If you have requests for special consideration, questions about your standing in the course, or other matters requiring discussion you must see me personally. My e-mail is asadanan@uoguelph.ca

2. You will be asked to complete an evaluation for this course sometime during the last two weeks of classes. The Department of Economics' policy regarding the conduct and use of these evaluations can be found at:

http://www.uoguelph.ca/economics/academics/courses/course-evaluation

COURSE CONTENT

Tentative readings. Additional readings may be added during the semester.

- 1. Introduction
- 2. Simultaneous Full Information Games
- 3. Dynamic Full Information Games
- 4. Simultaneous Imperfect Information Games
- 5. Dynamic Imperfect Information Games
- 6. Rationalizability, Iterated Elimination
- 7. Refinements, More Applications

OR Ch1; O Ch1; OR Ch2.1-2.4,3.1,3.2; O Ch2,3,4; OR Ch6,7,8; O Ch5,6,7,14,15,16; OR Ch2.6; O Ch9; OR Ch11,12.1-12.3; O Ch10; OR Ch4; O Ch12; OR 12.4; other readings