The Hebrew University of Jerusalem

Syllabus

GAME THEORY & INFORMATION ECONOMICS (MICRO B) - 57963

Last update 11-03-2014

<u>HU Credits:</u> *4*

<u>Degree/Cycle:</u> *2nd degree (Master)*

<u>Responsible Department:</u> *Research Master in Economics. A joint program with Tel-Aviv University*

<u>Academic year:</u> *0*

<u>Semester:</u> *Yearly*

<u>Teaching Languages:</u> *Hebrew*

<u>Campus:</u> *E. Safra*

<u>Course/Module Coordinator:</u> *Elchanan Ben-Porath*

<u>Coordinator Email:</u> benporat@math.huji.ac.il

<u>Coordinator Office Hours:</u> *Wednesday, 9:00-10:00*

Teaching Staff:
  Prof Elchanan Ben-Porath

Course/Module description:
  In the first part of the course we will introduce the main solution concepts of game theory and apply these concepts to different examples of interest, such as, competition between firms, auctions, and bargaining. In the second part of the course we will focus on information economics and discuss models of adverse selection, signalling, screening, the principal agent problem, and if time permits mechanism design.

Course/Module aims:
  The course has two major goals:
1. Introduce game theory as a formal framework for the analysis of interactions between rational players.
2.Introduce the basic insights of information economics, in particular, the effect of asymmetric information on the outcomes of economic interactions.

Learning outcomes - On successful completion of this module, students should be able to:
  Formulate a verbal description of an interaction as a game and find the set of equilibrium outcomes of the game.

Attendance requirements(%):
  No such requiremnt

Teaching arrangement and method of instruction: There is a weekly meeting. There will be a home work assignment almost every week (about twenty problem sets for the whole year.)

Course/Module Content:
  1. Games in the Strategic Form.
2.Extensive Games with Perfect Information.
3.Strategic Games with Incomplete Information.
4. Extensive Games with Incomplete Information.
5.Adverse Selection.
6.Signalling and Screening.
7. The Principal Agent Problem.

8. Mechanism Design.

Required Reading:
 1. A Course in Game Theory;
Osborne and Rubinstein, MIT press.
2.Microeconomic Theory; Mas-Colell, Whinston and Green; Oxford University Press.

Additional Reading Material:
  3. Game Theory; Fudenberg and Tirole, MIT Press.
4. Game Theory; Myerson, Harvard University Press.
5. An Introduction to Game Theory; Osborne; Oxford University Press.
6. Game Theory; Machler, Solan and Zamir; Cambridge.
(The book is available in Hebrew as well. Magnes Press.)

 Course/Module evaluation:
 End of year written/oral examination 100 %
 Presentation 0 %
 Participation in Tutorials 0 %
 Project work 0 %
 Assignments 0 %
 Reports 0 %
 Research project 0 %
 Quizzes 0 %
 Other 0 %

Additional information: