

Microeconomics III
Spring 2012
Course Description

Contact information

- Instructor: Shachar Kariv
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- Teaching assistant: Anat Afek
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Location and times

Lectures will be held on Sun 08:00-09:30 and 10:00-11:30 in Pisgah Hall.

Office hours

- Shachar (in office): Sun 16:00-18:00. Office hours are by appointment only. Sign up online at <https://my.timedriver.com/H3V3R>. Take only one time slot unless absolutely necessary. There is no no-show/late-cancellation fee but please be considerate. Feel free to to ask questions, or even just to introduce yourself and to chat. In case you have any trouble, there are plenty opportunities for help. I would also be happy to discuss with you any issues beyond the course work, not necessarily of pure micro-theoretic substance.
- Anat (by phone): Wed 20:00-21:00. Please email Anat a phone number where you can be reached.

General information

The course presents some of the main topics in game theory and designed to develop theoretical tools. The general style of the course is formal, and the number of theorems and proofs is relatively high. For some parts, the formal mathematical requirements are not mild. The main aim of the course is to provide

a formal study of economic reasoning with an emphasis on mastering the analytical tools. As such it relies on a higher level of abstraction and focuses on techniques of economic analysis rather than on the understanding of specific economic problems or institutions.

Reading material

The class will rely on handouts that will be given for each class and also be available for downloading in PDF format from the course web page. The notes will contain a very large amount of the material in the course, but are only necessary (and not sufficient) readings. The notes are (always) work in-progress and inevitably contain errors. I would appreciate being told of any errors found in the notes. The following text is required:

1. Osborne M., **Introduction to Game Theory**, Oxford University Press, 2003 (hereafter, O).

O presents the main topics of game theory at an accessible level suitable for undergraduate courses, and gives concrete understanding. It presents the main topics of game theory at a level suitable for our purposes and emphasizes the theory's foundations as well as recent topics in game-theoretic research. It provides precise definitions and full proofs of broad range of results. I do not particularly suggest any other book unless otherwise announced in class. Each class a specific references will be given. The books are available at any of the on-line booksellers. Good additional references for topics not covered in O are the standard microeconomic theory textbooks (there is no need to buy any of these books):

2. Varian H., **Intermediate Microeconomics: A Modern Approach**, Norton & Company, 2009.
3. Varian H., **Microeconomic Analysis**, Norton & Company, 1992.

Problem sets

The course will rely heavily on problem sets. Each week a problem set will be assigned and will be due the following Sunday. The problem sets are meant to be learning tools. All questions in

the problem sets are a required material. Many of the questions will be assigned from O. You should work on the problem sets with each other. Answer keys will be distributed via the IDC course web page.

The problem sets are crucial to your doing well in the course. Given the course's once a week format, it is very important that you do the problem sets each week. They will be challenging, and will ask you both to demonstrate your ability to use the analytical tools from class and to show a deeper understanding of the concepts. As a result, you are strongly encouraged to start the problem sets early in the week. The problem sets are an important component of your learning and make a significant contribution to your performance on the exam (more below).

The problem sets also count for 20% of your final grade. The grading will reward good faith effort (not for getting the final answer correctly!). However, systematically doing poorly on problem sets or not turning in a problem set at all will likely have an adverse effect on your overall learning (and thus on the final grade).

Exam

The exam will test your basic knowledge in the course material and the ability to apply this material to new problems. Exams will be closed book and based on problem set type questions. Further details will be given later in the semester.

Topics

Games with perfect information (O ch. 2-4), Zero-sum games (O ch. 11), evolutionary stability (O. 13), Oligopoly, Extensive games with perfect information (O ch. 5-7), Bargaining (O ch. 16), Bayesian games (O ch. 9), Extensive games with imperfect information (O ch. 10), Moral hazard and adverse selection, and more...

A piece of advice

While the main emphasis of the course is providing a formal study of economic reasoning, another emphasis is developing an approach to thinking about economic problems. Like learning to

ride a bicycle, learning to think like an economist takes practice. Merely observing how problems are approached in lectures or readings will not enable you to solve similar problems yourself. The only way to become proficient at solving economic problems is to do them yourself.