## ECON125a. Microeconomic Theory. Fall 2015.

**Lectures:** MW 1:00-2:15

HLH17 05

**Instructor:** Eduardo Faingold

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http://www.econ.yale.edu/~ef253/

30 Hillhouse Ave., Rm. 27

Office hours: Tuesday 4:30-5:30 (or by appointment)

**Teaching fellow:** Daria Khromenkova

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IMPORTANT: Due to the instructor's observance of Jewish holidays, there will be no lectures on Monday, September 14 and Wednesday, September 23. Instead, discussion sections, which will normally meet on Fridays, will meet on those dates during regular lecture hours. Finally, there will be make-up lectures by the instructor on Friday, September 18, and Friday, September 25, during the hours reserved for discussion sections.

**Topic:** Microeconomic Theory is the study of individual decision making and the implications of this decision making for market phenomena. The course develops the basic analytical tools used by economists to study economic decisions and market behavior. These are used to examine the behavior of consumers and firms, competitive markets, imperfectly competitive markets, and market failures. The last part of the course ventures into more advanced topics, including game theory, information economics, social choice, voting and auction theory. Applications include the economics of insurance, education, international trade, health care, pollution, taxation, and other topics. The course is similar to Economic 121 in scope, but *topics are covered at a more advanced level*.

**Prerequisites:** Economics 125 requires introductory economics, in the form of one of Economics 108, 110 or 115, and one of Economics 111 or 116. Some students with strong backgrounds in economics and mathematics may prefer to opt out of the introductory courses and begin with Economics 125. Doing so requires permission of the director of undergraduate studies. Your first step if you would like to pursue this option is to contact the DUS (Prof. Samuel Kortum). The course may not be taken after Economics 121.

Economics 125 also requires the prior completion of a course in mathematics at the level of calculus or higher (Math 118 or 120). More importantly, you will be expected to be comfortable with the use of mathematics. Mathematics is often the most convenient tool for reasoning precisely, and we will use it throughout. In particular, you will be expected

to be comfortable working with derivatives, integrals and solving systems of equations.

**Textbook:** Our main reference is:

Geoffrey Jehle and Philip Reny, *Advanced Microeconomic Theory* (3<sup>rd</sup> edition, Pearson, 2011).

Past editions are perfectly acceptable substitutes. For the most part, lectures will follow the text very closely (albeit at a less technical level), and most homework exercises will be assigned directly from it. Thus, the book is required.

Some students may also benefit from reading less advanced treatments at the level of Intermediate Microeconomics, such as:

Hal R. Varian, *Intermediate Microeconomics* (8<sup>th</sup> edition, W. W. Norton and Company, 2009).

**Requirements:** Grades will be based on:

20%: Mid-term exam I: Wednesday, October 7 (in class)
20%: Mid-term exam II: Wednesday, November 4 (in class)

20%: Homework

40%: Final exam: Thursday, December 17, 9am

**Homeworks:** There will be homework assignments most weeks (but not if there is an exam), to be downloaded from classes\*v2. These will be due in class, usually one week after they are assigned. Answers will be posted the day the homework is due. As a result, late homeworks will not be accepted, under any circumstances. When computing homework scores, your lowest two scores will be dropped, allowing two homeworks to be missed if necessary without dire consequences. Homeworks will be returned and discussed in discussion sections.

**Discussion Sections:** Discussion sections will meet weekly, beginning **Friday, September 11**. Registration for discussion sections is via Online Course Selection. Discussion sections are an especially useful opportunity to work through problems and seek answers to questions.

**Outline of Lectures:** A detailed outline of the lectures, along with the required readings from the textbook (referred below as JR) will be posted on *classesv2*. Here is a rough outline:

- 1. Consumer Choice (5 lectures, JR 1.2-1.5 and 2.4)
- 2. Theory of the Firm (3 lectures, JR 3.2-3.5)

- 3. Partial Equilibrium (2 lectures, JR 4.1 and 4.3)
- 4. General Equilibrium (3 lectures, JR 5.1-5.3)
- 5. Game Theory and Imperfect Competition (6 lectures, JR 4.2, Parts of JR7)
- 6. Asymmetric Information and Market Failures (2 lectures, Parts of JR 8)
- 7. Social Choice and Voting (1 lecture, JR 6.2)