

Economics 125a, Microeconomic Theory

Fall 2009

Dino Gerardi

Class Time and Place: MW 1.00-2.15, WLH 208

Review session: TBA

Office Hours: F 1:30-3:30, 30 Hillhouse, 22A

or by appointment, 2-6519, donato.gerardi@yale.edu

Teaching Assistant: James Choy – james.choy@yale.edu

Requirements and Grades

Students are required to have advanced calculus and be comfortable with mathematical arguments.

The grades will be determined as follows: problem sets 15%, midterm 35%, final exam 50%.

There will be problem sets about once a week. The midterm will be on Monday October 19th.

Course Text

Geoffrey Jehle and Philip Reny [JR]: *Advanced Microeconomic Theory*, 2nd edition, Addison Wesley Pub Co, 2001, ISBN 0321079167.

This is an advanced text, and the lectures will be at a somewhat less advanced level. I will distribute a few handouts during the course.

Outline

The course will provide a rigorous survey of microeconomic theory. In the first half of the course we will examine the economic behavior of consumers and firms. The second half will be devoted to the study of selected topics: game theory, market failures, information economics and public choice theory.

I. Introduction.

II. Choice Under Certainty (5 lectures).

Preferences and Utility (JR 1.2); The Consumer's Problem (JR 1.3); Indirect Utility and Expenditure Functions (JR 1.4); Properties of Consumer Demand (JR 1.5); Revealed Preference (JR 2.3).

III. Choice Under Uncertainty (3 lectures).

Objective Probability and Expected Utility (JR 2.4); Subjective Probability (JR 2.4); Risk Aversion (JR 2.4).

IV. Theory of the Firm (2 lectures).

Production Functions (JR 3.2); Cost Functions (JR 3.3); Profit Maximization (JR 3.5).

V. Partial Equilibrium (1 lecture).

Perfect Competition (JR 4.1); Equilibrium and Welfare (JR 4.3).

VI. General Equilibrium (5 lectures).

The Edgeworth Box Exchange Economy (JR 5.1); Exchange Economies (JR 5.2); The Efficiency of Competitive Equilibria (JR 5.2.2); General Equilibrium with Production (JR 5.3); The Core (JR 5.4).

VII. Game Theory and Imperfect Competition (4 lectures).

Monopoly; Game Theory: Static Games (JR 7.2); Game Theory: Dynamic Games (JR 7.3); Oligopoly (JR 4.2); Auctions (JR 9).

VIII. Asymmetric Information and Market Failures (2 lectures).

Information Economics (JR 8); Externalities; Public Goods.

IX. Public Choice Theory (2 lectures).

Social Choice and Arrow's Theorem (JR 6.2); Voting.