Econ 205	Intermediate Microeconomic Theory	Prof. Gray
Fall 2002		JC 223 (x7693)

Microeconomics examines individual economic decisions by households and firms, and how these 'add up' to form market supply and demand. This course will extend the techniques learned in Econ 10 & 11, to develop a firm theoretical underpinning for market analysis. Though some math skills are involved in solving homework problems, the main emphasis is on understanding the logic of the models. Every attempt will be made to apply the models to real-world market situations. Classroom participation will be encouraged, and will figure prominently in the grading.

Office Hours: Monday 2:00-3:30, Tuesday 10:30-11:30, Thursday 1:30-2:15

Text: Intermediate Microeconomics, by Hal Varian (6th edition).

Optional study guide: Workouts in Intermediate Microeconomics

Grading:25% quizzes (5 short quizzes, top 4 count)<br/>20% midterm exam (October 10, in class)<br/>25% final exam (December 17, 8:00-10:00)<br/>30% weekly homeworks and class participation

Teaching Assistant: Sutanuka DevRoy weekly discussion sections on homework problems (to be arranged)

## Course Outline (generally 1 class = 1 chapter in Varian)

I. Introduction (Varian, chapter 1; 1 lecture)

Review concepts of market supply and demand. Apply to model for apartments, using comparative statics analysis to see how differences in supply and demand influence allocation of apartments. Review concept of Pareto optimality and apply to the cases of different allocation mechanisms.

II. Consumption Decisions (Varian, chapters 2-5; 4 lectures)

Introduce concept of budget constraint, and how shifts in prices and income influence the available consumption bundles. Consider how taxes, subsidies, and rationing complicate the calculation of the budget line. Examine how consumers' preferences can be represented by indifference curves, using a variety of examples. Compare ordinal and cardinal theories of utility, the concept of a utility function, and how different utility functions are related to the consumer's indifference curves. Combine budget constraints with preferences to identify the optimal consumption choice, and see what relationships hold true at the optimum for a variety of utility functions.

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III. Demand Theory (Varian, chapters 6-8, 14; 4 lectures)

Derive individual consumer demand theory, as influenced by prices and income. Examine Revealed Preference theory, and what consumers' choices can tell us about their preferences. Consider how the impact of a price change on demand can be decomposed into income and substitution effects. Connect a demand curve to consumer's utility and derive consumer surplus.

IV. Market Demand (Varian, chapters 15, 16, 10-11; 3 lectures)

Aggregate individual consumer's demand curves into the market demand curve for a good. Review the idea of elasticity, and the connection of elasticity with revenue. Using simple supply curves, consider the market equilibrium and how shifts in the supply and demand curves affect the equilibrium. Also consider intertemporal issues in demand and supply, and how these relate to the market equilibrium.

V. Production Decisions (Varian, chapters 18-22; 5 lectures)

Examine how the technology of production is described, using marginal product and substitution between factors. Given technology and prices, consider the profit-maximization production decision for a firm. Restate the firm's decision as cost minimization, considering differences between short- and long-run costs. Derive the various cost curves of the firm, and the relationships between them. Develop the relationship between the firm's cost curve and its supply curve, both short and long-run, for a competitive firm.

VI. Industry Supply and Interactions (Varian, chapters 23-25, 27-29; 4 lectures)

Consider how individual firm's decisions are interconnected, based on the structure of the industry. Assuming a competitive industry, examine the short and long-run impacts of a variety of changes in the market. Consider the optimal decision for a monopolist, with and without price discrimination. Analyze the strategic decisions faced by a firm in an oligopolistic industry. Introduce game theory and Nash equilibrium and apply them to oligopoly decision-making. Use game theory in other settings to analyze cooperation, competition, and commitment.

VII. Efficiency and Market Failure (Varian, chapters 30, 33, 35, 36; 4 lectures)

Examine market allocation in a simple economy, using the Edgeworth Box diagram to derive Pareto efficient outcomes. Identify the problems caused for efficient allocation by the existence of externalities, and what adjustments might be needed to achieve efficiency. Consider the provision of public goods, and how the free rider problem may require the need for government intervention in the market. Show the importance of information in market operation, and how imperfect information flow between buyers and sellers may lead to sub-optimal performance of the market.