Princeton University *Fall Semester*
Woodrow Wilson School of International and Public Affairs *2007*

WWS511d: Microeconomic Analysis (Accelerated)

Course Syllabus

Instructor:

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Office Hours: Mondays 4:15 – 5:45PM

Course Objectives:

This course presents key concepts from microeconomic theory at a fairly high level of abstraction – with an eye to policy analysis. Topics covered include consumer and producer theory; competitive market equilibrium; market power; externalities and public goods; and uncertainty and information. The goal is to make you comfortable with the models and arguments that the professional literature uses to describe and prescribe policy (at the level of publications covered in second year Ph.D. programs in economics). In an effort to meet this goal, we will spend some time reviewing journal articles in a student-led format.

The course is intended for students who are familiar with the contents of a good calculus based intermediate microeconomics course. Importantly, the course presumes a certain level of mathematical proficiency. This means not only knowledge of, but comfort using multivariate calculus (including constrained optimization), basic probability theory, and linear algebra.

Textbook:

The required textbook is: H. Varian, *Microeconomic Analysis*, W.W. Norton & Company 3/E, 1992. Other suggested textbooks (for reference) are:

- W. Nicholson, *Microeconomic Theory*, 9/E, Thomson
- B R. Binger & E Hoffman, *Microeconomics With Calculus*, 2/E,Addison-Wesley
- G.A. Jehle & P.J.Reny, *Advanced Microeconomic Theory*, 2/E, Addison-Wesley
- Mas-Colell, M.D. Whinston & J.R. Green, *Microeconomic Theory*, New York and Oxford, Oxford University Press, 1995

These textbooks are listed in the order of least to most mathematical (and technical) in their treatment of the subject. The Nicholson and Binger & Hoffman texts provide much

more exposition and worked-out examples than the Varian text; and their coverage is less technical (graphical analysis is used throughout, and calculus is used mostly to support the main theoretical arguments and to develop examples; hardly any linear algebra or probability theory is used). The other two textbooks are intended for graduate students in economics. Mas-Colell, Whinston, & Green is the standard Ph.D. level text in economics. It is encyclopedic and emphasizes mathematical generality, sometimes at the expense of intuition and economic content. Jehle & Reny is an excellent text that also covers the material at an economics Ph.D. level. However, it incorporates much more discussion and examples than M-W-G. If you intend to pursue doctoral research in a related field, you will probably want to own both of these excellent reference books.

Organization and Grading

Each student is evaluated on their performance in the following course requirements: participation in lectures including a class presentation, problem sets, a midterm exam and a final exam. Problem sets will be lightly graded (check, check+, check-). You are encouraged to work together on them, however everyone must write up and turn in their own problem sets. In the class presentation, each student will lead a discussion of one of the journal articles we will read in the latter half of the semester. Evaluation is based on your ability to explain the important aspects of the paper using the microeconomic concepts and models presented in lecture as well as the clarity of your presentation.

The final grade is determined by weighing each requirement by the following amounts:

Midterm Exam	35%
Final Exam	50%
Paper Presentation(s)	10%
Problem sets	5%

Course Outline

I. Consumer Theory (5 lectures); Varian: Chs. 7-8
    a. Preferences and utility maximization
    b. Duality and expenditure minimization
    c. Income and substitution effects
II. Topics in Consumer Theory (4 lectures); Varian Chs. 9-11
    a. Aggregation and welfare evaluation
    b. Labor-leisure choice and consumption over time
    c. Decision making under uncertainty
III. Producer Theory (3 lectures); Varian: Chs. 1-6
    a. Technology, profit maximization, and cost minimization
    b. Cost functions and industry supply
IV. Competitive Markets (3 lectures)
    a. Partial Equilibrium Analysis; Varian: Chs. 13
    b. General Equilibrium Analysis; Varian: Chs. 17-18,21-22
V. Market Failures (6 lectures); Varian: Chs. 14-16, 23-24
    a. Monopoly
    b. Oligopoly & Game Theory
    c. Externalities
    d. Public Goods
VI. Information (2 lectures); Varian: Ch. 25