

PRINCETON UNIVERSITY: Woodrow Wilson School of Public and International Affairs  
Graduate Program

**WWS 511c**  
**Microeconomic Analysis - Advanced**

Fall 2005

Instructor:

Professor Bobby Willig  
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Class meets Monday and Wednesday, 10:40 - 12:10, Robertson 015  
with weekly precept to be scheduled

**SPECIAL SCHEDULE FOR FIRST TWO MEETINGS:**

Monday, 9/19, 4:30 -6:00 pm and Wednesday, 9/21, 4:30 – 6:00 pm  
Bowl 001

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This course is an introduction to the use of microeconomics for the analysis of public policy, on an advanced level. The emphasis is on both the intuitive and formal logic of economic principles, a deeper perspective on the impacts of typical policy measures, and an introduction to the use of professional microeconomic tools to assess and weigh these policy impacts. One goal is to move students towards the ability to read professional microeconomic literature with appreciation of both its contributions and foibles.

A working knowledge of basic calculus and ease with algebraic manipulation are prerequisites of the course, and any prior exposure to microeconomics would be very helpful. Nevertheless, it is expected that some students will not have taken a micro course since Econ 1 quite a while ago. The level of mathematics employed in the first week of classes, during which students can attend both 511b and 511c, or 511c and 511d to inform their choice, will be representative of the whole semester.

Course requirements include regular attendance and participation in lectures and precepts, almost weekly problem sets (25% of grade, with lowest score dropped), a midterm exam (25% of grade), and a final exam (50% of grade). Students are welcome and encouraged to work on the problem sets in small groups, but solutions are to be written independently and handed in separately. Weekly precept meetings will clarify some of the material left obscure in lectures, fill in some gaps, and cover the problem sets.

Textbooks for this course are a problem, because there is no text that clearly articulates the important ideas to this audience and that also uses calculus. I have gone with Microeconomic Theory: Basic Principles and Extensions (Ninth Edition) by Walter Nicholson, South-Western, as the required text because it is accurate in its articulation and it expounds the right level of math for this course. Microeconomics (Third Edition), by Michael Katz and Harvey Rosen, published by Irwin-McGraw-Hill, will be very useful for students wanting a relatively clear and well-written additional accurate source on the material, even though it has no calculus. Microeconomics with

Calculus (Second Edition) by Brian Binger and Elizabeth Hoffman, published by Addison Wesley, provides additional coverage and additional examples of the ways that calculus is employed in micro. There will also be handouts that summarize the mathematical material of the course.

The first half of the course will focus on the workings of competitive markets. Supply--demand models will be developed and applied to a wide variety of circumstances and policies. We will explore the theories of consumer and firm behavior, in order to get behind the supply-demand representation, to develop the basic tools for normative assessment of policies, and to lay the foundations for more complex microeconomics. The social advantages of the market mechanism will be laid out in detail.

The second half of the course will focus on market failures -- the circumstances in which market outcomes do not fully serve the public interest -- and categories of policy measures that can ameliorate them. The principal causes of market failure are monopoly power, externalities, public goods, and asymmetric information. The course will analyze some of the basics of policies for government intervention in the categories of taxation and welfare programs, environmental protection, regulatory rules, public provision of services and information standards.

### **Course Outline**

[The "Nicholson" page numbers below refer to the ninth edition of the text.]

1. Microeconomic modeling and the comparative statics of supply-demand equilibrium -- sales taxes as an example. (2 lectures) Nicholson, pp. 139-140, 27-28, 279-286, 288-295, 322-323. [Katz & Rosen Ch. 1, pp. 73—85, and pp. 349—359].
2. Consumer theory, labor supply, and individual welfare. (4 lectures) Nicholson, Chs. 3, 4, 5, 6, and pp. 477-487. [Katz & Rosen, Ch. 2, Ch. 3, Ch. 4 and Ch. 5 up to p.136.]
3. Theory of the firm. (3 lectures) . Nicholson, Chs. 7, 8, 9, and 10. [Katz & Rosen, Ch. 7, Ch. 8, Ch. 9, and Ch. 10.]
4. Workings of competitive markets. (2 lectures) Nicholson, Chs. 10 and 11. [Katz & Rosen, Ch. 11]
5. Social welfare. (2 lectures) Nicholson Chs. 11, 12, and 21. [Katz & Rosen Ch. 12.]
6. Savings and capital. (1 lecture) Nicholson Ch. 17. [Katz & Rosen pp. 137--156, pp. 321--324.]
7. Monopoly. (1 lecture) Nicholson Ch. 13 and pp. 593-596. [Katz & Rosen, Ch. 13 and pp. 488-494.]
8. Oligopoly, potential competition, and game theory. (3 lectures). Nicholson Chs. 14 and 15. [Katz & Rosen, Ch. 14, 15, 16]
9. Externalities and public goods. (2 lectures) .Nicholson Ch. 20. [Katz & Rosen Ch. 18]
10. Decision-making under uncertainty. (1 lectures) Nicholson Ch. 18. [Katz & Rosen, Ch. 6.]

11. Markets with asymmetric information. (3 lectures) Nicholson Ch. 19. [Katz & Rosen, Ch. 17 and pp. 519-538.]