

Princeton University – Department of Economics  
Spring Term 2009  
Syllabus

ECO 310 -- MICROECONOMIC THEORY: A MATHEMATICAL APPROACH

Lectures: Tuesdays and Thursdays 11-12.20, Peyton 145

Professor: Stephen Morris, 211 Fisher Hall, 8-4032, [smorris@princeton.edu](mailto:smorris@princeton.edu)  
Office Hours: Mondays 10-12 or by appointment

Administrative Assistant: Geralyn McDermott, 108 Fisher Hall, 8-4004, [geralyn@princeton.edu](mailto:geralyn@princeton.edu)

Preceptors:

Alice Hsiaw, [ahsiaw@princeton.edu](mailto:ahsiaw@princeton.edu), Fisher B10, office hours Monday 4pm-5pm

Andrew Robinson, [acrobins@princeton.edu](mailto:acrobins@princeton.edu), Fisher B10, office hours Monday 3pm-4pm

Precepts on Wednesdays:

10 a.m. Robinson

11 a.m. Robinson

2:30 p.m. Hsiaw

3:30 p.m. Hsiaw

First precept: Wednesday February 11; No precept on Wednesday March 11

Course web page on Princeton Blackboard: please check regularly

## COURSE DESCRIPTION

This is a course in intermediate microeconomics, emphasizing the applications of calculus and linear algebra to the problems of decision-making by consumers and firms, and market interactions.

## READINGS

The textbook for the course is:

Walter Nicholson and Christopher Snyder, *Microeconomic Theory: Basic Principles and Extensions*, tenth edition 2007

## GRADING

Course grades will be determined by combining grades on problem sets (20 percent), a midterm exam (30 percent) and the final exam (50 percent). There will be 8 problem sets; the schedule is given below. The problem sets will be posted on the course web page in PDF format, and some hardcopies will be available in class. Each problem set will be due in class on the day specified. We will not accept late problem sets for any reason. Instead, we will count the grades on the best 6 problem sets you hand in; thus you can miss up to 2 without any penalty.

The grading will be on a 0-100 scale, not 60-100. Therefore do not be frightened if your numerical score seems low. In the answer key handed out with the graded problem sets and exams, we will tell you the distribution of scores for that component.

You are encouraged to form study groups; 3-4 is the ideal size. Group work on problem sets is permitted and even encouraged. The mid-term exam will be in-class on Tuesday March 11th. The final exam will be a 3-hour exam (scheduled by the registrar's office). Both exams are closed-book, under the honor code.

## SCHEDULE OF PROBLEM SETS

Number	Available	Due
1	Feb. 10	Feb. 17
2	Feb. 17	Feb. 24
3	Feb. 24	Mar. 3
4	Mar. 3	Mar. 10
5	Mar. 24	Mar. 31
6	Mar. 31	Apr. 7
7	Apr. 7	Apr. 14
8	Apr. 21	Apr 28

## SCHEDULE OF LECTURES

1. INTRODUCTION and METHODS OF OPTIMIZATION (Feb. 3, 5)  
Nicholson-Snyder Part 1
2. CONSUMER CHOICE (Feb 10, 12, 17, 19)  
Nicholson-Snyder Part 2, chapters 3-6
3. PRODUCTION, COST, AND PROFIT (Feb 24, 26, Mar 3)  
Nicholson-Snyder Part 3
4. PARTIAL EQUILIBRIUM (Mar 5)  
Nicholson-Snyder Chapter 12
5. GENERAL EQUILIBRIUM (Mar 12, 24)  
Nicholson-Snyder Chapter 13
6. MONOPOLY (Mar 26)  
Nicholson-Snyder Chapter 14
7. OLIGOPOLY AND GAME THEORY (Mar 31, Apr 2, 7)  
Nicholson-Snyder Chapters 8, 15
8. UNCERTAINTY (Apr 9, 14)  
Nicholson-Snyder Chapter 7
9. FINANCE (Apr 16)  
Nicholson-Snyder Chapters 17 and 7 “Portfolios of Many Risky Assets”
10. ASYMMETRIC INFORMATION (Apr 21, 23)  
Nicholson-Snyder Chapter 18
11. EXTERNALITIES AND PUBLIC GOODS (Apr 28)  
Nicholson Chapter-Snyder 19
12. AUCTIONS AND CONCLUSION (Apr 30)

The midterm exam will be in class on Tuesday March 10. It will not be re-scheduled because of “too many other midterms” that day, so please check your schedule of classes carefully.

The date and time of the final exam will be determined by the Registrar’s Office.