ECO 310 -- MICROECONOMIC THEORY: A MATHEMATICAL APPROACH

Lectures: Tuesdays and Thursdays 11-12.20, McCosh 46

Professor: Stephen Morris, 211 Fisher Hall, smorris@princeton.edu
Office Hours: Mondays 11-12 or by appointment

Administrative Assistant: Geralyn McDermott, 108 Fisher Hall, 8-4004, geralyn@princeton.edu

Preceptors:
Leandro Gorno, lgorno@princeton.edu,
office hours Monday 3-4, Fisher B-10 or by appointment.

Rainer Schwabe, rschwabe@princeton.edu,
office hours Monday 10-11, Fisher B-10 or by appointment.

Precepts: Wednesdays, times to be determined.

First precept: week of February 8-12

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

<table>
<thead>
<tr>
<th>Number</th>
<th>Available</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Feb. 9</td>
<td>Feb. 16</td>
</tr>
<tr>
<td>2</td>
<td>Feb. 16</td>
<td>Feb. 23</td>
</tr>
<tr>
<td>3</td>
<td>Feb. 23</td>
<td>Mar. 2</td>
</tr>
<tr>
<td>4</td>
<td>Mar. 2</td>
<td>Mar. 9</td>
</tr>
<tr>
<td>5</td>
<td>Mar. 30</td>
<td>Apr. 6</td>
</tr>
<tr>
<td>6</td>
<td>Apr. 6</td>
<td>Apr. 13</td>
</tr>
<tr>
<td>7</td>
<td>Apr. 13</td>
<td>Apr. 20</td>
</tr>
<tr>
<td>8</td>
<td>Apr. 22</td>
<td>Apr. 27</td>
</tr>
</tbody>
</table>
SCHEDULE OF LECTURES

1. INTRODUCTION and METHODS OF OPTIMIZATION (Feb. 2, 4)
   Nicholson-Snyder Part 1

2. CONSUMER CHOICE (Feb 9, 11, 16, 18)
   Nicholson-Snyder Part 2, chapters 3-6

3. PRODUCTION, COST, AND PROFIT (Feb 23, 25, Mar 2)
   Nicholson-Snyder Part 3

4. PARTIAL EQUILIBRIUM (Mar 4)
   Nicholson-Snyder Chapter 12

5. GENERAL EQUILIBRIUM (Mar 9, 23)
   Nicholson-Snyder Chapter 13

6. MONOPOLY (Mar 25)
   Nicholson-Snyder Chapter 14

7. OLIGOPOLY AND GAME THEORY (Mar 30, Apr 1, 6)
   Nicholson-Snyder Chapters 8, 15

8. UNCERTAINTY (Apr 8, 13)
   Nicholson-Snyder Chapter 7

9. FINANCE (Apr 15)
   Nicholson-Snyder Chapters 17 and 7 “Portfolios of Many Risky Assets”

10. ASYMMETRIC INFORMATION (Apr 20, 22)
    Nicholson-Snyder Chapter 18

11. EXTERNALITIES AND PUBLIC GOODS (Apr 27)
    Nicholson Chapter-Snyder 19

12. AUCTIONS AND CONCLUSION (Apr 29)

The midterm exam will be in class on Thursday March 11. 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.