AEREC 597E
APPLIED MICROECONOMIC THEORY
Fall 2008

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Office Hours: Mondays, 2:00-3:30; Thursdays, 2:30-4:00, or by appointment

Class Meetings
Tuesdays. 9:45 – 11:00 201 Electrical Eng. West
Thursdays 9:45 – 11:00 114 Keller.

Lab Section: Fridays 11:15 – 12:05 417 Forest Resources

Midterm Exam 1: Thursday, September 25, in class
Midterm Exam 2: Thursday, October 30, in class
Final Exam: During Exam Week

Course Description
This course covers basic principles of microeconomic theory with the use of calculus. The emphasis is on applied theory and problem solving, rather than formal proofs and derivations. By developing knowledge of microeconomic theory and economic reasoning skills, the goal of the course is to provide a foundation for more advanced courses and for applied research at the graduate level.

Course Objectives
Students who successfully complete this course should understand and be able to apply the microeconomic theory needed to solve applied economic problems in the following areas:

- Consumer choice and demand
- Production and supply
- The functioning of competitive and monopolistic markets
- General equilibrium and welfare analysis
Course Prerequisites
The student must have already taken an Intermediate Microeconomics course (similar to Econ 302 at Penn State), and two semesters of calculus (similar to Math 110/111 at Penn State).

Textbook


Optional Readings


Steven Landsburg writes occasional columns on [www.slate.com](http://www.slate.com) that apply economic reasoning to a number of topical problems. Go to the Slate web site, and type “Everyday Economics” in the search bar.


Grading
Final course grades will be assigned based on 10 problem sets, two midterm exams and a final exam. Each completed problem set handed in on time will yield a credit of 1.5 percent of the course grade. The second midterm exam will be limited to material since the first midterm exam. The final exam will be cumulative. The final exam will be held during final exam week on the date, time, and place established by the University. The percentage breakdown of final course grades is as follows:

<table>
<thead>
<tr>
<th>Item</th>
<th>Percent</th>
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</thead>
<tbody>
<tr>
<td>Problem Sets</td>
<td>15%</td>
</tr>
<tr>
<td>First Midterm Exam</td>
<td>25%</td>
</tr>
<tr>
<td>Second Midterm Exam</td>
<td>25%</td>
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<tr>
<td>Final Exam</td>
<td>35%</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
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</tbody>
</table>
Grading Scale
Your numerical course grade will be assigned a letter grade as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage Range</th>
</tr>
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<tbody>
<tr>
<td>A</td>
<td>90 – 100%</td>
</tr>
<tr>
<td>A-</td>
<td>85 – 90%</td>
</tr>
<tr>
<td>B+</td>
<td>80 – 85%</td>
</tr>
<tr>
<td>B</td>
<td>75 – 80%</td>
</tr>
<tr>
<td>B-</td>
<td>70 – 75%</td>
</tr>
<tr>
<td>C+</td>
<td>65 – 70%</td>
</tr>
<tr>
<td>C</td>
<td>60 – 65%</td>
</tr>
<tr>
<td>D</td>
<td>50 – 59%</td>
</tr>
<tr>
<td>F</td>
<td>0 – 50%</td>
</tr>
</tbody>
</table>

Missed Exams
Make-up exams will not be given absent a valid excuse. If you know that you will miss an exam due to an illness, family emergency or other valid excuse, please contact me in advance in order to take it at another time.

Problem Sets
You should bring two copies of your completed problem sets to the lab session. You will turn one copy in, and keep one to look at during the lab. Problem sets will be graded Pass/Fail, with a pass given to any good faith attempt to do all of the assigned work. You may work in groups on the problem sets, but all group members must fully participate in working toward the solutions. Groups should turn in one copy only, with a list of all group members on the front of the problem set. Late problem sets will not be accepted without a valid excuse.

Academic Integrity
According to University Faculty Senate Policy 49-20, "Academic integrity is the pursuit of scholarly activity in an open, honest and responsible manner. Academic integrity is a basic guiding principle for all academic activity at The Pennsylvania State University, and all members of the University community are expected to act in accordance with this principle. Consistent with this expectation, the University's Code of Conduct states that all students should act with personal integrity, respect other students' dignity, rights and property, and help create and maintain an environment in which all can succeed through the fruits of their efforts."

Policy 49-20 continues, "Academic integrity includes a commitment not to engage in or tolerate acts of falsification, misrepresentation or deception. Such acts of dishonesty violate the fundamental ethical principles of the University community and compromise the worth of work completed by others." Suspected violations of University academic integrity policy will be handled per the G-9 Academic Procedure (http://www.psu.edu/oue/aappm/G-9.html).

The College of Agricultural Sciences has a helpful Academic Integrity website (http://academicintegrity.cas.psu.edu/).
Course Outline

I. Introduction
   a. Economic Models (chapter 1)
   b. Mathematics of Optimization (chapter 2)

II. Choice and Demand
   a. Preferences and Utility (chapter 3)
   b. Utility Maximization and Choice (chapter 4)
   c. Income and Substitution Effects (chapter 5)
   d. Demand Relationships Among Goods (chapter 6)

III. Production and Supply
   a. Production Functions (chapter 9)
   b. Cost Functions (chapter 10)
   c. Profit Maximization (chapter 11)

IV. Competitive and Monopolistic Markets
   a. Partial Equilibrium Competitive Model (chapter 12)
   b. General Equilibrium and Welfare (chapter 13)
   c. Models of Monopoly (chapter 14)

Other Topics as Time Allows
   a. Uncertainty and Information (chapter 7)
   b. Imperfect Competition (chapter 15)
   c. Strategy and Game Theory (chapter 8)
   d. Externalities and Public Goods (chapter 19)