Microeconomics is concerned with the behavior of individual entities such as individuals/households as consumers, firms or enterprises as producers, and individual markets. In examining the behavior of consumers, we will focus on how consumers maximize their happiness given the constraint of their income or wealth resources. In studying the behavior of firms, we will look at how firms make investment and production decisions in order to maximize profits and shareholders’ wealth. We will also investigate how consumers’ demand and the producers’ supply interact to determine the equilibrium prices and quantities in individual markets. The course provides analysis of market structure and market environment (perfect competition, monopoly, oligopoly, and monopolistic competition).

Course Objectives:

- To understand the basics of a market economy and the current global market environment.
- To understand how households and firms (consumers and producers) make decisions to allocate limited resources.
- To understand how demand and supply interact to determine market prices and quantities.
- To analyze the different types of market structure (perfect competition, monopoly, and monopolistic competition) in which firms operate.
Readings:


**Lecture notes** (posted on Blackboard): They help course participants focus on the main points in the lectures.


**Other materials:** Selected articles from academic and business journals and other publications may be added to the readings as the course is in session.

**Students are expected to do the required readings before class.**

Requirements, Assignments, Tests, and Grading Policies:

This course requires basic math skills in arithmetic, algebra, and geometry, as well as an ability to manipulate data, read graphs, and pay attention to details.

Students’ performance in the course is evaluated as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
</tr>
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<tbody>
<tr>
<td>Weekly homework assignments</td>
<td>30 points (5 points each)</td>
</tr>
<tr>
<td>Quiz 1 (in Week 3)</td>
<td>10 points</td>
</tr>
<tr>
<td>Quiz 2 (in Week 6)</td>
<td>15 points</td>
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<tr>
<td>Final exam</td>
<td>25 points</td>
</tr>
<tr>
<td>Case analysis</td>
<td>10 points</td>
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<tr>
<td>Participation</td>
<td>10 points</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>100 points</strong></td>
</tr>
</tbody>
</table>

**Weekly homework assignments:** There will be six weekly problem sets (one for each week of the first six class sessions). The problem sets will be posted on Blackboard and students are required to submit answers to the problem sets online by the designated deadlines.

**Quizzes and the final exam:** They cover materials contained in class discussions (including the PowerPoint slides), the lecture notes, the required text and other required readings. They are cumulative, with relatively more weights on materials covered in more recent classes (for example, Quiz 2 covers materials for Sessions 3, 4 and 5 more heavily than those covered in Sessions 1 and 2). A calculator and a cheat sheet (letter size) are allowed for the quizzes and the final exam. Makeup for the quizzes and the final exam is only allowed for emergencies.
Case studies: Students are required to do case analysis in Week 7. Specific requirements and evaluations will be discussed in class.

Class participation: Full attendance and active participation are required for the course. Participation is based on attendance, ability to answer questions and contributions to class discussions, and completion of in-class exercises. The participation grade is split equally among all class sessions.

Grading Policy: The Faculty of the School of Business decided to implement a rigorous grade distribution format with limited numbers of students receiving high grades. The MBA Faculty Task Force recommends that the grade distribution of the class has an average within the range between 3.2 and 3.4 and no more than 20% of the class receives a grade of A.

Disability services: Any student who may need an accommodation based on the potential impact of a disability should contact the Disability Support Services office at 202-994-8250 in the Marvin Center, Suite 242, to establish eligibility and to coordinate reasonable accommodations. For additional information please refer to: http://gwired.gwu.edu/dss/.

Academic Integrity: Conduct and all work in this course must be in accordance with the GW Code of Academic Integrity. Academic dishonesty is defined as cheating of any kind, including misrepresenting one’s own work, taking credit for the work of others and the fabrication of information. Any assignment including plagiarized content will receive zero points. Please visit the following website for more information: http://www.gwu.edu/~ntegrity/code.html.
Session Outlines and Reading Assignments

Session 1  Introduction; Supply and Demand
Topics
   Central concepts of economics
   Major problems that an economy has to solve
   The “invisible hand”
   Alternative economic systems in the world
   Inputs, outputs, technology, and production possibility frontier (PPF)
   Specialization and exchange
   Basic elements of supply and demand
Required readings:
   Lecture note
   Samuelson and Nordhaus, 2010:
      Chapter 1: The Central Concepts of Economics
      Appendix 1: How to Read Graphs
      Chapter 2: The Modern Mixed Economy
      Chapter 3: Basic Elements of Supply and Demand
Supplementary readings:
   Perloff, 2012:
      Chapter 1: Introduction
      Chapter 2: Supply and Demand

Session 2  Demand and Consumer Behavior
Topics
   Utility and marginal utility
   The law of diminishing marginal utility
   Price elasticity of demand and calculation
   Income effect and substitution effect
   Consumer surplus and calculation
   Indifference curves and indifference maps
   Consumer equilibrium with indifference curve and budget constraint
Required readings:
   Lecture note
   Samuelson and Nordhaus, 2010:
      Chapter 4: Supply and Demand: Elasticity and Application
      Chapter 5: Demand and Consumer Behavior
      Appendix 5: Geometrical Analysis of Consumer Equilibrium
Supplementary readings:
   Perloff, 2012:
      Chapter 3: Applying the Supply-and-Demand Model
      Chapter 4: Consumer Choice
      Chapter 5: Applying Consumer Theory
Session 3  Firm Theory: Production and Costs

Topics
The theory of production and marginal products
Production functions, total product, marginal product, average product
The law of diminishing returns
Returns to scale
Costs: Total cost, fixed cost, variable cost
Average total cost, average fixed cost, average variable cost
Marginal cost

Required readings:
Lecture note
Samuelson and Nordhaus, 2010:
    Chapter 6: Production and Business Organization
    Chapter 7: Analysis of Costs
Supplementary readings:
Perloff, 2012:
    Chapter 6: Firms and Production
    Chapter 7: Costs

Session 4  Perfect Competition

Topics
Firm behavior in a perfectly competitive market
Profit maximization in a perfectly competitive market
The break-even and shutdown conditions for a perfectly competitive firm
The supply curve of a competitive firm and the marginal cost curve
Producer surplus
Market equilibrium with supply and demand
The efficiency of perfect competition

Required readings:
Lecture note
Samuelson and Nordhaus, 2010:
    Chapter 8: Analysis of Perfectly Competitive Markets
Supplementary readings:
Perloff, 2012:
    Chapter 8: Competitive Firms and Markets
    Chapter 9: Applying the Competitive Model
Session 5   Imperfect Competition and Price Discrimination

Topics
- Monopoly profit maximization
- Welfare effects of monopoly
- Price discrimination
- Market structures: Definition and classifications
- Market structures and market power
- Oligopoly and game theory
- Monopolistic competition

Required readings:
- Lecture note
- Samuelson and Nordhaus, 2010:
  Chapter 9: Imperfect Competition and Monopoly
  Chapter 10: Competition among the Few

Supplementary readings:
- Perloff, 2012:
  Chapter 11: Monopoly (Sessions 11.1 through 11.4)
  Chapter 12: Pricing and Advertising
  Chapter 13: Oligopoly and Imperfect Competition
  Chapter 14: Game Theory

Session 6   The Government and the Economy

Topics
- Market failures and imperfections
- Externalities
- Public goods
- Efficiency and equity
- The Gini coefficient (index)
- Role of the government

Required readings:
- Lecture note
- Samuelson and Nordhaus. 2010:
  Chapter 11: Economics of Uncertainty
  Chapter 16: Government Taxation and Expenditure
  Chapter 17: Efficiency vs. Equality: The Big Tradeoff

Supplementary readings:
- Perloff, 2012
  Chapter 11: Monopoly (Sections 11.5 and 11.6)
  Chapter 18: Externalities, Open-Access, and Public Goods
Session 7  Case Studies (one or both may be covered in class):
1. Antitrust Regulation in a Global Setting: The EU Investigation of the GE/Honeywell Merger
2. Carbon Trading Simulation

Topics
The economics of a merger
Types of mergers and associated antitrust issues
Principles underlying competition policies
Complexities firms confront when operating under different regulatory regimes
Businesses and the environment
Decision making under uncertainty

Required readings:
Mithir A. Desai and Belen Villalonga, Antitrust Regulation in a Global Setting: The EU Investigation of the GE/Honeywell Merger, Harvard Business School case, 9-204-081, December 23, 2003. (Students are required to order this Harvard case on their own from Harvard Business School)
Peter Coles, Carbon Trading Simulation, Harvard Business School case, 9-911-053, February 25, 2011. (Students should wait for further instructions before ordering this case)

Supplementary readings:

Session 8  Final Examination