Microeconomics is concerned with the behavior of individual entities such as individuals/households as consumers, firms or enterprises as producers, and individual markets. We first examine how consumers maximize their happiness given the constraint of their income or wealth resources and how firms make investment and production decisions in order to maximize profits and shareholders’ wealth. We then 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). The government’s role in the economy and international trade theories/policies are also discussed in the course.

Course Objectives:
- To understand the basics of a market economy and the current global market environment.
- To understand how households (consumers) and firms (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, oligopoly, and monopolistic competition) in which firms operate.
- To understand the government’s role in dealing with market failures in the economy.
- To understand why nations trade, government trade policies, and principles of the World Trade Organization.

Required Readings:
Lecture notes and PowerPoint slides (PPT) (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.
See required readings for each specific class session in “Session Outlines and Reading Assignments” of this syllabus.

**Recommended Supplementary Readings:**


There are other supplementary readings listed for some sessions. Supplementary readings are not included in homework assignments or the final exam unless they are referenced in the lecture notes.

**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>
</thead>
<tbody>
<tr>
<td>Weekly homework assignments</td>
<td>60</td>
</tr>
<tr>
<td>Final exam (Week 8)</td>
<td>40</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

**Blackboard:** The entire course is conducted through Blackboard. Students are expected to access Blackboard on a regular basis while the course is in session for updates of course materials, announcements, and other course related information.

Specific schedules and due times of the assignments and the final exam are posted separately on Blackboard (See “Syllabus/Schedules” on Blackboard). Students are required to strictly follow the schedules and due times (It is important that students set up calendars to remind themselves of the due dates for the assignments and the final exam). It is highly recommended that students plan to complete assignments and the exam ahead of the due time to avoid late hour emergencies and computer/internet breakdowns.

**Weekly homework assignments:** There will be seven weekly homework assignments. You are required to complete these assignments on Blackboard (see “Homework Assignments” folder). No other form of submission is accepted. You may take one or two attempts for each assignment. If two attempts are taken, the score for the assignment will be the average of these two attempts.

Students are required to complete and submit these assignments on Blackboard by the designated deadlines. No late submission is accepted, as answers to the homework assignment is made available on Blackboard upon the deadline. No makeup assignments will be allowed. Instead, six of the seven assignments will count toward the final course grade. That is, if you miss one assignment due to unforeseen circumstances, your score for that assignment (virtually zero) is dropped without affecting your course grade. If you complete all seven assignments, the assignment with the lowest score is automatically dropped. The resulting six assignments will have an equal weight of 10 points each.
**Final exam**: The final exam covers materials contained in the teaching notes, PowerPoint presentations, homework assignments (and answers), the required text, live-session presentations, and other required readings. The final exam covers the entire course. Although the exam is open-book, there is a time limit for completion and one attempt is allowed for the exam. Late submission is subject to a one-time penalty of 25% of the exam grade. Students are recommended to prepare notes for reference during the exams. Such notes may help organize your thoughts, identify weaknesses in your preparation, and strengthen your understanding of the key concepts. Makeup for the exam is not allowed except for health and family emergencies.

**The Q&A board**. Students are encouraged to post their course content-related questions to this board instead of sending emails to the teaching assistant (TA) or the professor. Answers will be provided on the same board. Questions through emails may be posted and answered on this board as well so that we learn from each other’s questions. Before sending emails for questions, students are recommended to visit this board to see if the same or similar questions have already been raised and answered.

**Live Sessions**. There will be bi-weekly collaborative or synchronous sessions for the course. Specific schedules will be announced on Blackboard (see “Live Sessions” folder). Such sessions provide an opportunity for questions and interaction among students and with the professor. The sessions will be recorded and made available on Blackboard. Attendance to these sessions is strongly encouraged, but not mandatory. If you miss a session, make sure you review the recorded session to make up. Contents in the live-session presentations may be included in the homework assignments or the final exam.

**Real World Events**. There will be a Real World Events section on Blackboard. Links to media coverage of course-related real world events and other references are posted in weekly folders. Visit to this section is voluntary. However, you are encouraged to browse these links and relate what we learn in the course to what is going on in the real business world. The folders may include references to past events as well as to current events. Contents in this folder are not tested in the homework assignments or exams unless they are included in the required course material.

**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. Please visit the following website for more information: [http://www.gwu.edu/~ntegrity/code.html](http://www.gwu.edu/~ntegrity/code.html).

**Disability Services**:
Any student who may need an accommodation based on the potential impact of a disability should contact the Disability Support Services office for guidance. For additional information please refer to: [http://gwired.gwu.edu/dss/](http://gwired.gwu.edu/dss/).
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
Economic profit
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

Topics:
- Market structures: Definitions and classifications
- Monopoly profit maximization
- Market structures and market power
- Collusive oligopoly
- Monopolistic competition
- Oligopolistic competition
- Oligopoly and game theory
- Price discrimination

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
- Inefficiency under monopoly
- Externalities
- Public goods
- Efficiency and equity
- The Gini coefficient (index)
- Role of the government

Required readings:
- Lecture note
- Samuelson and Nordhaus, 2010:
  - Chapter 10: Competition among the Few (Section C, pp. 199-206)
  - Chapter 11: Economics of Uncertainty (pp. 211-221)
  - Chapter 16: Government Taxation and Expenditure (pp. 303-314)
  - Chapter 17: Efficiency vs. Equality: The Big Tradeoff (pp. 323-326)
  - Chapter 18: International Trade

Supplementary readings:
- Perloff, 2012
  - Chapter 11: Monopoly (Sections 11.5 and 11.6)
  - Chapter 18: Externalities, Open-Access, and Public Goods
Session 7  International Trade Theories and Policies

Topics:
- The mercantilist view of trade
- Trade based on mutual benefits
- Comparative advantage: The Ricardo model
- Comparative advantage: The H-O model
- Inter- and intra-industry trade
- Arguments for and against protection
- Major principles of the WTO
- Case analysis: current issues in international trade

Required readings:
- Lecture note
- Samuelson and Nordhaus, 2010:
  - Chapter 18: International Trade

Supplementary readings:

Session 8  Final Examination

Check the “Syllabus/Schedules” folder on Blackboard for the exam schedule.