

# ECON 306: Intermediate Microeconomics

George Mason University Korea

Spring 2024

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<b>Office Hours:</b>	Tuesdays, 10:00 AM to 12:00 PM
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## Course Description

This course dives deeper into the topics covered in Contemporary Microeconomic Principles, now introducing few mathematical tools. The course covers concepts from consumer and firm theories, as well as the most relevant market structures, which, in sum, encompass the supply and demand paradigm.

## Course Information

- **Course Number:** ECON 306
- **Term:** Spring 2024
- **Schedule:** Wednesdays, 2:00 PM to 4:40 PM
- **Location:** Mason Korea, Room G202
- **Prerequisites:** ECON 103 and 104 and MATH 108 or 113

## Course Objectives

- Enhance skills in evaluating theoretical and methodological approaches for solving economic problems efficiently and sustainably.
- Improve clarity and constructiveness in both oral and written communication, with a focus on efficiency, fairness, and sustainability.

## Student Learning Outcomes

After this course, students should be able to understand the fundamentals of neoclassical microeconomic theory. Also, students should be able to recognize the usefulness of mathematical simplification to think about social issues and the functioning of markets. Specifically, students will:

- Identify the determinants of consumer demand using profit maximization concepts.
- Explain the role of scarcity, preferences, technology, specialization, and agent maximization in markets that function as mechanisms of social coordination.
- Describe utility and production functions; calculate and graph agents' optimal choices using basic mathematical tools.
- Understand concepts such as Pareto efficiency and welfare, including their implications for fairness and sustainability.
- Explain agent rationality and strategic behavior in oligopolistic market structures.

- Apply microeconomic concepts and graphical analysis to real-world problems while acknowledging the advantages and limitations of the theory.

## Contents

The course is structured in four modules.

- **Intro: the market:** Serving as an introduction to the class, this module revisits some concepts from the introductory microeconomics course. It includes the study of supply and demand curves, market equilibrium, surplus, and Pareto efficiency.
- **Consumer Theory:** This section focuses on exploring preferences, utility functions, the problem of maximization, and the derivation of the demand curve.
- **Firm Theory:** Here, we discuss the technology of production, cost minimization, and the formation of the supply curve.
- **Oligopoly** The final module examines prevalent market structures, such as oligopolies, and offers an introductory overview of game theory.

## Required Readings

- Varian, H. (2010). Intermediate Microeconomics (8th ed.). W.W. Norton & Company
- Varian's book is highly respected and widely used in economics programs globally. That said, for this course, we'll lean heavily on lectures, class discussions, and materials available on Blackboard.

## Course Policies

### Class quizzes

There will be a minimum of six unannounced quizzes throughout the course, which will contribute to the final grade and also evaluate the students' overall timely understanding of the course material. Quizzes will be graded in binary format: Pass or Fail. The final quiz grade will be calculated based on the percentage of quizzes passed relative to the total number of quizzes administered.

### Exams

The course includes a midterm and a final exam. The midterm will encompass topics from the first half of the course. The final exam is comprehensive. If the final exam grade is higher, it can replace the midterm grade. Exam absences must be justified by a **medical excuse only**.

### Problem sets

At least two problem sets will be assigned, contributing to the final grade and serving as preparation for each exam. All answers to the problem set **must be handwritten** and delivered before the exam date. The final grade for the problem sets will be calculated as their average grade.

## **Attendance**

Attendance is strongly encouraged, and students are expected to attend all classes and actively participate in discussions. If you anticipate being absent, please notify me via email in advance. Please note that if a surprise quiz is administered during your absence, it cannot be made up later.

## **Electronic device policy**

The use of electronic devices is prohibited in this class.

## **Grading Policy**

- Midterm Exam: 25%
- Problem Sets: 25%
- Class Quizzes: 20%
- Final Exam: 30%

## **Important Dates**

- Midterm exam: April 3
- Final Exam: June 12 (We follow Mason Korea final exam schedule)
- Spring recess (no classes): Mon Apr 8-Tue Apr 9
- Make up day 1: Tue Apr 30
- Children's day (no classes): Mon May 6
- Make up day 2: Thu May 16

## **Course schedule**

This class schedule is provisional and subject to change during the semester. Students are responsible for completing the assigned readings and their content may be included in the class quizzes.

- Week 1: Introduction
  - Syllabus review
  - Market experiment
- Week 2: The Market
  - Reading: Ch. 1
- Week 3: Budget constraint and preferences
  - Budget constraint
  - Reading: Ch. 2
- Week 4: Utility and Choice
  - Preferences
  - Reading: Ch. 4 and Ch. 5
- Week 5: Optimal choice and the demand curve
  - Reading: Ch. 5
- Week 6: The demand curve
  - Reading: Ch. 6
- Week 7: Midterm
  - Midterm April 3

- Week 8: Spring Recess (no classes)
- Week 9: Applications: Labor supply and the laffer curve
  - Reading: Ch. 9.8 and Appendix Ch. 15
- Week 10: Technology
  - Reading: Ch. 18
- Week 11: Profit maximization and cost minimization
  - Reading: Ch.19 and Ch.20
- Week 12: Cost curves and Firm Supply
  - Reading: Ch. 21 and Ch.22
- Week 13: Monopoly and Monopoly behavior
  - Reading: ch. 24 and ch. 25
- Week 14: Oligopoly and Strategic behavior
  - Reading: Ch.27
- Week 15: Games of competition
  - Reading: Ch.29

## **Confidentiality Statement**

All student records, including grades, are protected under privacy regulations. Communications between students and instructors must occur exclusively through the university's official email system to ensure the confidentiality and security of such exchanges.

## **Honor Code Statement**

Students are expected to adhere to the George Mason University Honor Code. All work submitted in this course must be your own. Cheating, plagiarism, or any form of academic dishonesty will not be tolerated and will result in appropriate sanctions as per university policies. More information about the Honor Code, including definitions of cheating, lying, and plagiarism, can be found on the Committee of Academic Integrity's website at

<https://masonkorea.gmu.edu/resources-and-services/cai/overview>.

## **Title IX Statement**

Notice of mandatory reporting of sexual assault, interpersonal violence, and stalking: As a faculty member, I am designated as a "Responsible Employee," and must report all disclosures of sexual assault, interpersonal violence, and stalking to Mason Korea's Deputy Title IX Coordinator pursuant to University Policy 1202 and 1412. If you would like to speak confidentially with the Mason Korea counselor, please see <https://masonkorea.gmu.edu/resources-and-services/counseling-and-wellness> for more information. For more information about what Title IX is, please see <https://masonkorea.gmu.edu/resources-and-services/title-ix>.