

# ECON 611: Microeconomic Theory 1

The University of Akron, College of Business, Department of Economics  
Syllabus Spring 2026

---

**Instructor:** Mengxi Sun

**Email:** [msun@uakron.edu](mailto:msun@uakron.edu).

Use your UA email account and include “ECON 611” in the subject line; otherwise I may accidentally overlook your email.

Response time is within 24 hours. Emails received after 5 PM Friday, on weekends, or school off days will be answered on the next workday.

**Class Time:** Tue. & Thu. 5:15 pm - 6:30 pm

**Class Location:** Room 133, College of Business Administration (CBA)

This is an in-person class and attendance is expected.

**Office Hours:** Tue. & Thu. 6:45 pm - 7:45 pm in CBA 308 or by appointment if you can't make it to any of the office hours. (Hours are tentative.)

**Time commitment:** 7.5 hours/week.

**Important dates:**

First day of the class is on Tuesday, January 13<sup>th</sup> 2026.

Midterm 1 takes place in class on Thursday, February 19<sup>th</sup> 2026 (tentative).

Midterm 2 takes place in class on Thursday, April 2<sup>nd</sup> 2026 (tentative).

Final is comprehensive during May 4 – 10<sup>th</sup> 2026 (scheduled by university).

---

## About

This course develops the core theoretical tools used to analyze microeconomic problems with strategic interaction and market power. We study how firms and markets operate when prices, quantities, and contracts are chosen optimally, with emphasis on formal models of producer behavior, market structure, and equilibrium analysis. The course prioritizes disciplined economic reasoning, deriving behavior from optimization problems and equilibrium conditions, over institutional detail. Policy discussions and applied cases are used not to replace theory, but to stress-test it: students are expected to use models to clarify trade-offs, identify welfare implications, and understand where standard assumptions succeed or fail.

## Learning Objectives

At the end of this course you will be able to

1. **Analyze how firms make production and pricing decisions**, and evaluate how technology and labor market conditions affect these choices.
2. **Examine different market structures**—from monopoly, to oligopoly, to competition—and determine equilibrium behavior and outcomes in each.
3. **Apply game-theoretic reasoning** to understand how firms and individuals interact when their decisions affect one another.
4. **Evaluate problems created by asymmetric information**, including hidden characteristics and hidden actions, and assess how contracts and policies can address them.
5. **Assess the efficiency and welfare implications** of market power, strategic behavior, and informational frictions.
6. **Use microeconomic models to interpret policy issues** in labor markets, market structure, and health/insurance contexts.

## Prerequisites

This course is primarily designed for graduate students who have had exposure to intermediate economic analysis and mathematical preparation.

## References

I will post class notes (as best as I can), solutions to problem sets and exams on Brightspace. Notetaking is important. I do not follow closely to a specific textbook, but you are more than welcome to reference the following collection of books whenever you find them helpful.

- Perloff, Jeffrey M. *Microeconomics: Theory and Applications with Calculus*. 5th ed. Boston: Pearson, 2021.
- Bhattacharya, Jay, Timothy Hyde, and Peter Tu. *Health Economics*. Houndmills, Basingstoke, Hampshire; New York, NY: Palgrave Macmillan, 2014.

## Topics

The lectures cover the following topics:

1. Module 1 - Producer Theory, Technology, and Market Power
  - Basic concepts: factors of production, profit maximization and cost minimization.
  - Market power on the supply side: cost structure and entry/exist, perfect competition, monopoly.
  - Market power on the demand side: monopsony and discussion in non-competitive clause
2. Module 2 - Game Theory and Market Structure
  - Basic concepts: best response, Nash equilibria, classic oligopoly games, collusion and welfare analysis, repeated games
3. Module 3 - Asymmetric Information, Risk, Insurance, and Health Economics

- Basic concepts: risk preference, asymmetric information, price discrimination, adverse selection and moral hazard.
- Applied Models in Health: Grossman Model, Akerlof Model, Rothschild-Stiglitz model

## Grades

- Attendance/participation (5%) and problem sets (35%):
  - Attendance/participation: attend the lectures; volunteer to answer questions; take active participation in group discussion and working on worksheets during class time.
  - There are (approximately 7) short problem sets along the course. Not all problems will be rigorously graded. I collect the problem sets mainly to get a sense of how you understand the material. The problem sets are opportunities for you to apply the concepts we talk about during lectures. And you are responsible to study the problem sets and the answer keys. Of course, if you need help, come to my office hours and ask! You are also encouraged to discuss and work with your fellow classmates.
- Exams (60%): 2 midterms and final (each worth 20%).

All exams are in-class closed-book, closed-note, and individual effort. Most of the exam questions will be a straightforward review of the material, closely parallel to in-class examples and problem sets. A few questions unlike those you have seen are there to test deeper comprehension of the material.

Week	Date	Date	Topics
1	1/13	1/15	Module 1: Producer Theory
2	1/20	1/22	Module 1: Cost structure
3	1/27	1/29	Module 1: Competition
4	2/3	2/5	Module 1: Market power
5	2/10	2/12	Module 2: Nash equilibria & Best response
6	2/17	2/19	
	No class	Midterm 1	
7	2/24	2/26	Module 2: Sequential games
8	3/3	3/5	Module 2: Sequential games
9	3/10	3/12	Module 2: Repeated games
10	3/17	3/19	Module 2: Repeated games
11	3/24	3/26	
	Spring Break: no class		
12	3/31	4/2	Module 3: Bayesian games
		Midterm 2	
13	4/7	4/9	Module 3: Adverse selection & Moral Hazard
14	4/14	4/16	Module 3: Grossman model
15	4/21	4/23	Module 3: Akerlof model
16	4/28	4/30	Module 3: Rothschild-Stiglitz model
17	5/5	5/7	
	Final Exam Week		

**Note:** This schedule is tentative. Topics, homework release dates, and deadlines may be adjusted depending on the pace of the course.

**Grading Scale (with scientific rounding of percentages to the first decimal place):**

Letter Grade	Start %	End %
A	93	100
A-	90	92.9
B+	87	89.9
B	83	86.9
B-	80	82.9
C+	77	79.9
C	73	76.9
C-	70	72.9
D+	67	69.9
D	63	66.9
D-	60	62.9
F	0	59.9

**Communication**

If you anticipate or experience any difficulty fulfilling the requirements of the course, please inform me as soon as possible so that we have time to figure out the best solution. Contacting me about such issues at the end of the semester when your grade is lower than what you would like it to be will unlikely change anything.

- **Accessibility Services:** Pursuant to University policy #3359–38–01, The University of Akron recognizes its responsibility for creating an institutional atmosphere in which students with disabilities have the opportunity to be successful. Any student who feels they may need an accommodation based on the impact of a disability should contact the Office of Accessibility at 330-972-7928 or [access@uakron.edu](mailto:access@uakron.edu). The office is located in Simmons Hall Room 105. Accommodations need to be requested in advance and will be applied prospectively from the point in time at which all relevant paperwork is received in full.
- **Late assignments:** You will be given enough time to finish each assignment. Answers would be posted immediately after the due date so late assignments would **not** be accepted to make it fair to all students.

- **Missing Midterm:** There is **no** makeup exams. If you have to miss midterm, the weight will be redistributed to the final.
- **Regrading:** You need to lay out your steps and logic for me to give partial credits. If you need assistance with your grade after comparing your work with the solution, please let me know. Do not write directly on your work when requesting a regrade. Modifying the original work and then requesting a regrade is a severe academic integrity violation. I will re-grade your work as a whole. Note that you are not guaranteed a higher grade with re-grading.

## **Attendance Policy**

Attendance refers to being present during scheduled class sessions. It's the foundation for active learning. Here's what is expected:

- **Regular Attendance:** As this is a in person course, you are expected to attend all scheduled class sessions in CBA 133 on time.
- **Impact on Grade:** Attendance will be recorded but will not directly affect your grade unless chronic absences are observed, which may lead to academic consequences.

## **Academic Integrity**

Students are responsible for knowing and adhering to the standards of academic honesty and all university policies. Any student engaged in cheating, plagiarism, or other acts of academic misconduct would be subject to disciplinary action. For additional information, please contact the Department of Student Conduct and Community Standards.

- **Academic Misconduct** will be reported to the university. The first violation leads to the loss of 5 points from the grand total. The second violation leads to the reduction of two letter grades (e.g. A to C). For regulation and definition of academic misconduct, please refer to: [University Code of Conduct](#), [Avoiding Plagiarism](#), [Academic Integrity](#).
- **Use of AI/ChatGPT** Ethical use of AI tools is allowed in this course. I define ethical use as follows:

- Permitted Use: AI tools may be used for brainstorming ideas or refining drafts of written work, provided their use is disclosed in your submission. You may (and should) use programs such as Microsoft Word’s Editor and Grammarly’s editing tools. Keep in mind that you should not automatically and thoughtlessly make all changes that these tools suggest.
  - Prohibited Use: You are not permitted to use any work product or submit any assignment that has been generated in whole or in part using artificial intelligence or the equivalent.
  - Academic Integrity: Undisclosed or inappropriate use of AI tools will be treated as an Honor Code violation and will result in administrative removal from the course, entry of an F for the course, and referral to the disciplinary committee.
- Sharing class materials, including problem sets and exams on the internet is a violation of academic integrity.

## **Sexual Harassment and Sexual Violence**

The University of Akron is committed to providing an environment free of all forms of discrimination, including sexual violence and sexual harassment. This includes instances of attempted and/or completed sexual assault, domestic and dating violence, gender-based stalking, and sexual harassment. If you (or someone you know) has experienced or experiences sexual violence or sexual harassment, know that you are not alone. Help is available, regardless of when the violence or harassment occurred, and even if the person who did this is not a student, faculty, or staff member.

Confidential help is available. If you wish to speak to a professional, in confidence, please contact:

- Rape Crisis Center, 24-hour Hotline: 330-434-7273. Office located in the Student Recreation and Wellness Center 246. The on-campus office number is 330-972-6328. For help for victims of sexual misconduct, refer to [Title IX: Help for Victims of Sexual Misconduct homepage](#).
- University Counseling Service: refer to [Counseling & Testing Center homepage](#).
- Student Health Services: refer to [Student Health Services homepage](#).

Please know the majority of other University of Akron employees, including faculty members, are considered to be “responsible employees” under the law and are required to report sexual harassment and sexual violence. If you tell a responsible employee about a situation, that employee will be required to report it to the Title IX Coordinator and possibly the police.

## **Code of Student Conduct**

Violations of Code of Student Conduct, including Offenses Against Others, Unauthorized Recording, Hazing, are not allowed. For more details on Code of Student Conduct and consequence of violation, please refer to <https://www.uakron.edu/studentconduct/code-of-conduct.dot>.

## **Student Resources**

ZipAssist is designed to share available resources and provide support and assistance to help students be successful at The University of Akron. For more information, please refer to <https://www.uakron.edu/zipassist/>.

## **University Policies**

Detailed information on the University of Akron’s policies, including the Student Code of Conduct, academic misconduct rules, ethical use of AI tools like ChatGPT, add/drop /withdrawal and refund policies, inclusive excellence, Title IX, sexual harassment and violence policies, disability accommodations, religious accommodations, support programs like ZipAssist, and first-day course materials fee can be accessed here: <https://www.uakron.edu/oaa/faculty-affairs/What-students-need-to-know>.

## **Acknowledgement**

I am grateful to Prof. Rania Gihleb and MIT OpenCourseWare, specifically Prof. Joshua Angrist and Prof. Daron Acemoglu, for which these materials are adapted based on their courses on labor economics and public policy.