



湖北工业大学
HUBEI UNIVERSITY OF TECHNOLOGY

Course Title	Topics in Microeconomics
Course Code	ECON 3913
Semester	Fall 2026
Course Length	8 Weeks, 60 Contact Hours
Credits	4
Instructor	TBA
Office	TBA
Email	TBA
Prerequisite	ECON 3211 Intermediate Microeconomics II
Antirequisite	ECON 3911 Topics in Microeconomics (5 Weeks)

Course Description:

This course provides a rigorous extension of microeconomic theory, focusing on decision-making under uncertainty, general equilibrium, welfare economics, market failure, and information asymmetries. It builds on intermediate micro theory to develop analytical models relevant for advanced economic reasoning. Topics include expected utility theory, public goods, externalities, game theory, and the economics of information. Emphasis is placed on theoretical modeling, problem solving, and real-world applications of advanced microeconomics.

Course Goals:

Students who successfully complete this course will demonstrate competency in the following general education core goals:

- **Critical Thinking Skills** – Students will engage in analytical thinking, demonstrating the ability to critically evaluate, synthesize, and apply knowledge to complex problems, and construct well-reasoned solutions and arguments.
- **Independent Research and Inquiry** – Students will conduct independent research, utilizing academic resources to explore relevant topics, formulating research questions, analyzing data, and presenting findings in a coherent, scholarly manner.
- **Problem-Solving and Application** – Students will apply theoretical concepts and methodologies learned in the course to real-world problems, demonstrating the ability to develop practical solutions informed by academic inquiry.
- **Global and Cultural Awareness** – Students will gain awareness of the global and cultural contexts relevant to the course, appreciating diverse perspectives and considering the implications of their studies in a broader, international context.

Student Learning Outcomes:

Upon completion of this course, students will be able to:

- Analyze consumer and producer behavior using primal and dual approaches;
- Model risk, uncertainty, and decision-making using expected utility theory;
- Apply general equilibrium models to assess policy changes and efficiency;
- Interpret and solve strategic behavior problems using game theory;
- Evaluate welfare outcomes and the role of government intervention in the presence of externalities, public goods, and asymmetric information;
- Demonstrate analytical fluency with key models and optimization problems in microeconomic theory.

Textbooks/Supplies/Materials/Equipment/ Technology or Technical Requirements:

Andreu Mas-Colell, Michael D. Whinston, Jerry R. Green, *Microeconomic Theory*, Oxford University Press, 1995.

Course Requirements:

Participation (5%)

Active, respectful, and well-informed participation is a basic expectation of this course. This includes substantial participation in discussion and in-class exercises. Active participation is especially valuable in application-heavy topics like game theory and welfare economics.

Quizzes (15%)

The quizzes may involve mini-calculations, conceptual multiple choice, or short-answer theory questions. These low-stakes assessments promote consistent preparation and allow the instructor to identify topics needing further review.

Problem Sets (20%)

Throughout the course, students will complete approximately 6–8 problem sets involving analytical derivations, model construction, and policy evaluation. These assignments encourage regular engagement with theoretical content and provide opportunities to apply concepts discussed in lectures to structured economic problems. Working through these exercises helps students build technical proficiency and reinforces their understanding of advanced microeconomic tools.

Midterm Exam (25%)

The midterm will test students on the first half of the course, including consumer and producer theory, partial and general equilibrium, and decision-making under uncertainty. It will contain both short-answer and long-form problems that assess students' ability to derive, interpret, and apply models. This timed assessment helps consolidate knowledge before moving into game theory and information economics, providing a crucial checkpoint for cumulative learning.

Final Exam (35%)

The final exam is cumulative and designed to assess students' mastery of the full range of microeconomic topics covered. It includes analytical derivations, applications of general equilibrium, game-theoretic analysis, and real-world scenarios involving asymmetric information and market failures.

Assessments: Activity	Percent Contribution
Participation	5%
Quizzes	15%
Problem Sets	20%
Midterm Exam	25%
Final Exam	35%

Grading:

Final grades will be based on the sum of all possible course points as noted above.

Grade	Percentage of available points
A	94-100
A-	90-93
B+	87-89
B	84-86
B-	80-83
C+	77-79
C	74-76
C-	70-73
D	64-69
D-	60-63
F	0-59

Course Schedule:

The schedule of activities is subject to change at the reasonable discretion of the instructor. Minor changes will be announced in class, major ones provided in writing.

ECON 3913 Schedule		
Lecture	Topic	Readings
L1	Course Introduction; Review of Preferences and Utility Functions	Ch. 3
L2	Consumer Choice and Utility Maximization	Ch. 3
L3	Income/Substitution Effects and Demand Curves	Ch. 2-3
L4	Review of Production Theory: Isoquants, Returns to Scale	Ch. 5
L5	Cost Minimization and Duality in Producer Behavior	Ch. 5
		Quiz 1
L6	Profit Maximization and Firm Supply	Ch. 5
L7	Partial Equilibrium: Competitive Markets	Ch. 10
L8	Pareto Efficiency and Market Efficiency	Ch. 10
L9	General Equilibrium: Edgeworth Box and Exchange Economy	Ch. 15
L10	General Equilibrium with Production	Ch. 15
		Quiz 2
L11	First and Second Fundamental Theorems of Welfare Economics	Ch. 16
L12	Uncertainty and Probability Foundations	Ch. 6, 19
L13	Expected Utility Theory	Ch. 6
L14	Risk Aversion and Insurance	Ch. 6
/	Midterm Exam	/
L15	Applications of Risk and Asset Choice	Ch. 19
		Quiz 3
L16	Game Theory I: Strategic Form, Dominance, Nash Equilibrium	Ch. 8
L17	Game Theory II: Mixed Strategies and Applications	Ch. 8

L19	Game Theory III: Sequential Games and Backward Induction	Ch. 9
L20	Oligopoly Models: Cournot and Bertrand	Ch. 12
		Quiz 4
L21	Oligopoly Models: Stackelberg and Collusion	Ch. 12
L22	Market Failures: Externalities and Social Cost	Ch. 10
L23	Public Goods: Free-Rider Problem and Provision	Ch. 11
L24	Asymmetric Information: Adverse Selection and Signaling	Ch. 13
L25	Moral Hazard and Incentives; Contract Design	Ch. 14
		Quiz 5
/	Final Exam	/

Accommodation Statement:

Academic accommodations may be made for any student who notifies the instructor of the need for an accommodation. It is imperative that you take the initiative to bring such needs to the instructor's attention, as he/she is not legally permitted to inquire. Students who may require assistance in emergency evacuations should contact the instructor as to the most appropriate procedures to follow.

Academic Integrity Statement

Each student is expected to maintain the highest standards of honesty and integrity in academic and professional matters. The University reserves the right to take disciplinary action, up to and including dismissal, against any student who is found guilty of academic dishonesty or otherwise fails to meet the standards. Any student judged to have engaged in academic dishonesty in coursework may receive a reduced or failing grade for the work in question and/or for the course.

Academic dishonesty includes, but is not limited to, dishonesty in quizzes, tests, or assignments; claiming credit for work not done or done by others; hindering the academic work of other students; misrepresenting academic or professional qualifications within or without the University; and nondisclosure or misrepresentation in filling out applications or other University records.

Other Items:

Lab Policies

- **Attendance:** Attendance at all lab sessions is mandatory. Missing a lab without a valid excuse will result in a grade penalty.
- **Late Reports:** Late lab reports will incur a 10% penalty per day.
- **Safety:** Proper lab attire (lab coat, gloves, safety goggles) is required at all times. Failure to follow safety protocols may result in dismissal from the lab.
- **Academic Integrity:** Plagiarism and fabrication of data will not be tolerated and will result in disciplinary action.

Lab Materials

- Lab manual (provided during class).
- Lab notebook for recording data and observations.
- Personal protective equipment (lab coat, gloves, safety goggles).

Attendance and Expectations

All students are required to attend every class, except in cases of illness, serious family concerns, or other major problems. We expect that students will arrive on time, be prepared to listen and participate as appropriate, and stay for the duration of a meeting rather than drift in or out casually. In short, we anticipate that students will show professors and fellow students maximum consideration by minimizing the disturbances that cause interruptions in the learning process. This means that punctuality is a must, that cellular phones be turned off, and that courtesy is the guiding principle in all exchanges among students and faculty. You will be responsible for the materials and ideas presented in the lecture.

Assignment Due Dates

All written assignments must be turned in at the time specified. Late assignments will not be accepted unless prior information has been obtained from the instructor. If you believe you have extenuating circumstances, please contact the instructor as soon as possible.

Make-Up Work

The instructor will not provide students with class information or make-up assignments/quizzes/exams missed due to an unexcused absence. Absences will be excused and assignments/quizzes/exams may be made up only with written documentation of an authorized absence. Every effort should be made to avoid scheduling appointments during class. An excused student is responsible for requesting any missed information from the instructor and setting up any necessary appointments outside of class.

Access, Special Needs, and Disabilities

Please notify the instructor at the start of the semester if you have any documented disabilities, a medical issue, or any special circumstances that require attention, and the school will be happy to assist.