

ECON 6100: Advanced Microeconomic Theory

Bowling Green State University
College of Business Administration
Department of Economics

******The Instruction Mode for this class is In-Person******

Your attendance and participation is expected in each lecture. If you do not attend on a given day:

- You are responsible for submitting assignments, obtaining information about that days' activities, and (if a quiz was missed) promptly scheduling a make-up oral quiz via Zoom.
- Understand that repeated absences may impact your participation score in the course.

Students are expected to follow BGSU COVID-19 protocols at all times, which includes wearing a face covering in all classroom, studio, lab, and office spaces for as long as a University mandate is in place. Failure to comply with these protocols may result in disciplinary action under the Code of Student Conduct. Please refer to the BGSU COVID-19 website for the most current information about expectations and requirements.

Catalog Description

Introduction to optimization methods, theories of utility, consumer behavior, production, and firm behavior. Introduction to uncertainty and the economics of information and to non-competitive market structure. Introduction to general equilibrium and welfare economics.

Prerequisites: ECON 3020 or ECON 5110, and MATH 1260 or equivalent, or consent of graduate coordinator.

Meet or Message Dr. Shafer

E-mail: rshafer@bgsu.edu

ONLINE Office Hour: Tuesday 11–noon <https://bgsu-edu.zoom.us/j/8452884151>

CAMPUS Office Hour: Wed/Thurs noon–1 Maurer Center 315, Phone 419-372-8060

Required Text

Geoffrey A. Jehle and Philip J. Reny, *Advanced Microeconomic Theory*, Third Edition, Pearson. (ISBN 9780273731917)

Other Learning Resources

For students who want to review microeconomics at the intermediate level, I recommend:

- Hal R. Varian, *Intermediate Microeconomics*, Norton. (An old edition will be perfectly serviceable.)

For students who want more background in mathematics, the following texts may be useful:

- Martin J. Osborne, [Mathematical Methods for Economic Theory](#)

- Simon and Blume, *Mathematics for Economists*, Norton, 1994.
- Chiang and Wainwright, *Fundamental Methods of Mathematical Economics*, McGraw-Hill, 2005.

Assessment

A student's total score in the course will be calculated according to these weights:

Points	Assessment
100	Participation
350	Assignments 1-7
200	Quizzes 1-4
100	Applied Model Report
250	Final Exam, December 17, 11:30 am – 2 pm
1000	TOTAL

A score of 900 points or better will receive at least at A; a score of 800 points or better will receive at least a B; a score of 700 points or better will receive at least a C. Exact cutoffs will be determined once the total scores are calculated.

Participation

- Purpose** Students will keep pace with course material and stay engaged during lectures; we will identify and address as a class any areas of confusion.
- Procedure** During lectures, cold-calling students to discuss questions. The questions will be provided ahead of time.
- Scoring** The professor will rate student's response as Absent (0 points), Unprepared (50 points), Prepared - a response that shows a grasp of the question and an thoughtful attempt to answer it (100 points), or Excellent - a response that is complete, well-reasoned, and well-organized (150 points). At the end of the semester, a student's participation score will equal their average answer rating – up to a maximum of 100 points.

Assignments

- Purpose** Students will apply new concepts and problem-solving techniques to questions that are more in-depth than can be covered in a classroom discussion, quiz, or exam.
- Procedure** Assignments are due in class (approximately) every other Tuesday starting on September 7. The assignments will be distributed on Canvas. Since solutions will also be distributed on Canvas after the due date, late work might not be accepted if it is submitted after solutions have been made available (or points may be deducted for lateness if the solutions have not yet been distributed).
- Scoring** Each of the seven assignments will be valued at 50 points.

Quizzes

Purpose	Students will commit to memory key concepts and solution techniques
Procedure	A short quiz will be given following our study of each of the main topic areas in the course. The quizzes will take place in class during the last 25 minutes of a lecture. If a written quiz cannot be administered in-person, then the quiz will be administered as an oral exam.
Scoring	Each of the four quizzes will be valued at 50 points.

Applied Model Report

Purpose	Students will explore a topic of their choice within microeconomic theory.
Procedure	Each student will write a report discussing two peer-reviewed journal articles pertaining to a topic in microeconomics of the student's choice. At least one of those two papers should present a theoretical economic model (the other may be an empirical paper more strongly linking such a model to an specific application, or another theoretical paper presenting an alternative or related model). The report should discuss the model's significance and applications; detail components of the theoretical model(s) - including the assumptions and notation used; and compare the two papers' conclusions.
Scoring	100 points

Final Exam

Purpose	A comprehensive review of the material mastered during the course.
Procedure	The written exam will be held in-person on December 17 from 11:30 am – 2 pm. Students will create a set of personal notes (no more than five 8.5-by-11" sheets of paper) to use as a reference during the exam, and turn in those notes along with their exam answers.
Scoring	50 points for the reference sheets; 200 points for the quality of analysis in the answers to the (approximately 10) exam questions.

Tentative Schedule

The related reading page numbers in the schedule below refer to our textbook by Jehle and Reny.

Wk	Date	Lecture Topic	Related Reading
1	Aug 26	Introductions Mathematics	Syllabus A1.1-4 Logic, Sets, Topology, Functions (495-545)
2	Aug 31	Optimization	A2.1-3 Calculus, Optimization, Constrained Optimization (551-565, 577-587)
		PART I: ECONOMIC AGENTS	
	Sept 2	Consumer Preferences	1.1-3 Preferences, Utility (3-24)
3	Sept 7	Consumer Problem 1 Assignment 1 due	Example 1.1
	Sept 9	Consumer Problem 2	1.4 Indirect Utility and Expenditure (28-44)

Wk	Date	Lecture Topic	Related Reading
4	Sept 14	Consumer Demand Math Quiz	1.5 Properties of Consumer Demand (48-60), <i>Giffen Behavior</i> article
	Sept 16	Consumer Topics	2.4 Uncertainty (97-118)
5	Sept 21	Production Assignment 2 due	3.1-2 Production (125-135)
	Sept 23	Cost Minimization	3.3-4 Cost & Duality (135-145)
6	Sept 28	Profit Maximization	3.5.1 Profit Maximization (145-154)
PART II: MARKETS AND WELFARE			
7	Sept 30	Partial Equilibrium	4.1 Competition (165-168), 4.2 Pure Monopoly (170-171)
	Oct 5	Market Power Assignment 3 due	4.2 Oligopoly and Monopolistic Competition (172-179)
	Oct 7	Partial Equilibrium	4.3.1-3 Price, Welfare, Efficiency (179-188)
8	Oct 12	General Equilibrium Economic Agents Quiz	5.1 Exchange (195-201)
	Oct 14	<i>Fall Break – no lecture</i>	
9	Oct 19	General Equilibrium Assignment 4 due	5.2 Competitive Market (201-219)
	Oct 21	Social Choice 1	6.1-2 Social Choice (267-272)
10	Oct 26	Social Choice 2	6.2-3 Arrow's Impossibility Theorem (272-285)
	Oct 28	Social Welfare	6.4 Justice (288-290), <i>Justice readings</i>
11	Nov 2	Gibbard Satterthwaite Assignment 5 AND Report Proposal due	6.5 Social Choice (290-292, 292-296)
	PART III: STRATEGIC BEHAVIOR		
	Nov 4	Game Theory 1	7.1-2.1 Pure Strategy Nash Equilibrium (305-313)
12	Nov 9	Game Theory 2 Markets and Welfare Quiz	7.2.1-3 Mixed Strategies; Incomplete Info (313-325)
	Nov 11	<i>Veterans Day Observed – no lecture</i>	
13	Nov 16	Game Theory 3	7.3.1-4 Extensive Form Games (325-333), 7.3.5 Imperfect Information & Backward Induction (333-337)
	Nov 18	Adverse Selection 1	8.1.1-3 Signaling and Screening (379-413)
14	Nov 23	Adverse Selection 2 Assignment 6 due	
	Nov 25	<i>Happy Thanksgiving! No lecture</i>	
15	Nov 30	Moral Hazard	8.2 Moral Hazard (413-421)
	Dec 2	Principal/Agent First draft of Report due	<i>Principal Agent Problem</i> article
16	Dec 7	Auctions 1 Assignment 7 due	9.1-9.2.4 Private Values (427-435)
	Dec 9	Auctions 2	Revenue Equivalence (435-444)
	Dec 10	Games & Information Quiz	
	Dec 10	Final version of Applied Model Report due	
Finals	Dec 17	Final Exam 11:30 – 2 pm	

Important College of Business Policies

Vision: Our vision is to transform lives through excellent business education, impactful research and meaningful service.

Mission and Values Statements: The College of Business faculty and staff educate and develop tomorrow's business professionals through a student-centric approach, create impactful research, and serve our local, national, and global communities.

College Learning Outcomes

Goal 1: Students graduating with a BSBA degree will demonstrate competency in business knowledge and its application

Outcomes: Students will -

- Demonstrate understanding of fundamental knowledge in accounting, economics, finance, business statistics, operations & supply chain management, business law, organizational behavior, marketing, information technology, management science, and global strategy.
- Demonstrate proficiency in using business-related software applications.
- Demonstrate competency in integrating knowledge across business disciplines.

Goal 2: Students graduating with a BSBA degree will demonstrate competency in applying appropriate problem solving, decision making and critical thinking skills

Outcomes: Students will -

- Identify a business problem, develop and critically evaluate alternative solutions, and make appropriate recommendations.
- Assess the outcomes of a course of action and make appropriate adjustments.

Goal 3: Students graduating with a BSBA degree will demonstrate effective communication and interpersonal skills

Outcomes: Students will -

- Effectively write a business document.
- Make effective oral presentations in both individual and team settings.
- Demonstrate the understanding and application of teamwork.

Goal 4: Students graduating with a BSBA degree will recognize the ethical aspects of business.

Outcomes: Students will -

- Recognize the context of the ethical situation (economic, legal or cultural).
- Define the ethical responsibilities of business organizations.
- Describe the ramifications of unethical behavior.

College of Business List of Expectations

What Faculty Expect of Students:

- Attendance - Students are expected to consistently attend class, arrive to class on time, stay for the entire class, and to let instructors know when this will not be the case.
- Preparation - Students are expected to put in the necessary work outside of class (reading, watching video, practice problems) to be prepared for class.
- Participation - Students are expected to contribute regularly and meaningfully, as the course structure allows.
- Academic Honesty - Students are expected to be aware of and uphold the BGSU Academic Code of Conduct.
- Professional Etiquette/Manners - Students are expected to behave in a manner that enhances the learning or skill development of themselves and others.
- Engagement - Students are expected to be actively involved outside of the classroom (community service, extracurricular clubs, internships), in order to discover and nurture their passion.

What Students Can Expect of Faculty:

- Communication - Students can expect faculty to clearly describe specific expected behavior, course policies, due dates of assignments, the criteria on which they will be graded, and any changes to the course.
- Preparation and Organization – Students can expect faculty to be well-prepared for class activities, and maintain sufficient organization for the functionality of the course.
- Feedback - Students can expect faculty to provide feedback, either through reasonably prompt graded assignments, or written and oral comments.
- Expertise - Students can expect faculty to be well-qualified and passionate about the subject they teach, and to provide real-world applications of material when appropriate.
- Accessibility - Students can expect faculty to hold regular office hours, and to reply to email and discussion boards within a few days' time. Faculty will try to learn student names, and will generally be cordial to students outside the classroom.
- Respect - Students can expect the faculty to respect their privacy, and to avoid denigrating the student when circumstances cause the student's performance to be less than optimal.

Important University Policies

Code of Student Conduct

Bowling Green State University aspires to create an academic environment grounded in intellectual discovery and guided by rational discourse and civility. Within our learning community, we endeavor to act on our Core Values:

- We respect one another and foster diversity and a culture of inclusion.
- We collaborate with each other and our community partners in the region, the State of Ohio, the nation and the world.
- We promote intellectual and personal growth through curricular and co-curricular efforts.
- We foster an environment of creativity, innovation, and entrepreneurship.
- We expect excellence in all we do.

This Code of Student Conduct is intended to ensure students, as members of our community, and their organizations conduct themselves in accordance with these values including the expectation that all students participate in an environment that respects differences of sex, sexual orientation, race or color, marital status, ethnicity, religion or creed, ancestry, national origin, disability, age, and veteran's status.

This Code thus creates a set of expectations of student conduct, ensures a fair process for determining responsibility when student behavior may have deviated from those expectations and provides appropriate sanctions when a student or student organization has violated the Code of Student Conduct. Every effort will be made to balance the needs and rights of the individual with the welfare of the community as a whole.

Academic Honesty

Students are expected to maintain the highest level of integrity in their academic work. From time to time, however, issues such as cheating, fabrication, or plagiarism in an academic exercise arise. The original jurisdiction and penalty both vary depending on the offense and when it is discovered. Also, there are specific requirements for record-keeping and for notification of the student and academic dean. The official policy is included in the Faculty Handbook (Academic Charter). The policy is also available in the Student Handbook (Codes of Conduct).

Non-Discrimination Policy

Bowling Green State University is committed to providing equal educational opportunity. The University provides access to educational programs and activities without regard to race, sex, sexual orientation, gender identity, gender expression, color, national origin, ancestry, genetic information, pregnancy, religion, age, disability, or status as a veteran. Any grievance regarding alleged discrimination due to race, sex, sexual orientation, gender identity, gender expression, color, national origin, ancestry, genetic information, pregnancy, religion, age, disability, or status as a veteran shall be reported to the Office of Human Resources, 1851 N. Research Drive, 419-372-8421. If both parties are students, complaints should be reported to the Office of the Dean of Students, 301 Bowen-Thompson Student Union, 419-372-2843.

Applying for Services through Accessibility Services

To apply for accessibility services, students must submit documentation of their disability for review by AS staff. There is no deadline to apply for services, but students should be advised that the review process can take several weeks. We encourage prospective students to submit their documentation as soon as they have been accepted to BGSU. The request should include the following:

1. Request for Accommodation or equivalent information
2. Disability Verification Form or equivalent information
3. Most recent IEP, 504 plan, and multi-factored evaluation (MFE), if applicable

Once we've received and reviewed the documentation, we will notify you in writing of your eligibility status. Notification will be sent to your BGSU email account.

Cancellation of Classes in the Event of Severe Weather

The university equally values the safety and lives of all students, faculty and staff, while recognizing that we must maintain the effective operation of the university during inclement weather and other disruptions when possible.

An emergency closing of Bowling Green State University (BGSU) will be implemented only under severe and extreme circumstances. Every effort will be made to maintain classes. However, when health or safety conditions and/or a declared state of emergency due to other factors warrants, the university may delay the opening of the university or specific offices and areas, cancel some or all classes and/or activities, or implement an emergency closing of all or part of the university.

The decision to close the Bowling Green/Perrysburg campus is a consultative process that includes the President/President's designee, President's cabinet members/designees, and the Director of Public Safety/designee. The President or designee will have the final authority to make the decision to close or delay the opening of all or part of the university, cancel some or all classes or activities, or any necessary combination of the modification of normal operations.

Notwithstanding any announcement of a campus closure, students, faculty, staff, guests, and visitors must assume responsibility for their own health and safety, as well as for their class or work responsibilities. Students who do not attend class because they are concerned about their safety should notify their instructors. Individuals who live outside of Wood County or Erie County may find that their county of residence is under a Level 3 Snow Emergency when Wood or Erie County or is not, making it illegal for them to drive in their own county. Students in this circumstance should notify their instructors.

A decision to close a particular campus, delay opening or cancel classes or activities may be based on weather information and road conditions gathered from the BGSU Police Department, the Ohio State Highway Patrol, the County Sheriff's Office, other local police agencies surrounding the particular campus, official weather reports and forecasts, and consultation with BGSU Campus Operations staff. In most cases, the Bowling Green/Perrysburg campus will not close for winter conditions unless the Wood County Sheriff's Office declares a Level 3 Snow Emergency. (See winter weather conditions as defined by the Sheriff's Office under the definitions section.) Decisions made due to other emergencies may be based on information from local law enforcement, local fire officials, local health officials, and BGSU Campus Operations staff.

Once the decision is made to modify operations at a particular campus, all appropriate individuals will be notified through AlertBG texts, email, the BGSU home page, social media, and other means of digital communication. Local media outlets will be notified as well. The Office of Marketing and Communications will notify the university Fact Line (419/372-2445) and local radio and television stations. These include: WBGU-FM (88.1), WFAL-AM (680), WFOB-AM (1430), WOHO-AM (750), WCWA-AM (1230), WLQR-AM (1470), WRON (AM-1400, FM-97.7), WFIN-AM (1330), and WGTE-FM (91.3), WBGU-TV (Channel 27), and the four Toledo television stations (Channels 11, 13, 24 and 36).

Efforts will be made to notify media, send texts and emails, and post BGSU web site announcements at least one (1) hour before the decision takes effect when known in advance. Also, students, faculty and staff may call the university's answering service number (419/372-SNOW) to confirm whether the Bowling Green/Perrysburg campus and/or BGSU Firelands campus is closed or open due to severe weather.