ECON 310
Intermediate Microeconomics

Contact Information

Office: Sage Hall 2147
OH: Wednesdays, 9am-10am and 12pm-1pm, and by appointment
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Website: This course's website is available through CI Learn.

Course Description

We will discuss theoretical models and applied tests of how individuals make decisions in market settings, including decision making under uncertainty. We will also discuss theoretical treatments of how firms maximize profits under various competitive environments. Our treatment of firm competition will segue into a discussion of the core concepts of game theory and their applications. A thorough understanding of this material will leave you well prepared for future microeconomic courses such as labor economics and industrial organization. Passing this course will REQUIRE an understanding of algebra and basic calculus, but that's okay, because this material is sufficiently covered in the prerequisite math courses (see below).

Program Learning Goals: These are the skills we try to help you build in all MVS courses
1. Critical Thinking
2. Oral Communication
3. Written Communication
4. Collaboration
5. Conduct (Ethics)
6. Competency in Discipline

Course Learning Outcomes: Upon completion of this course, you will be able to
1. Explain the economic behavior of firms and households (1, 3, 6)
2. Describe and apply the scientific method to economic behavior, and devise methods for identifying the factors that motivate individuals and firms (1, 3, 6)
3. Apply the principles of competitive markets to identify factors that affect market prices and output (1, 3, 6)
4. Describe and distinguish between various forms of individual preferences over commodities, risky assets, and psychological goods, and understand how to identify preference types from observed behavior (1, 3, 6)
5. Evaluate the manner(s) in which public policy may affect behavior (1, 3, 6)

Prerequisites

ECON 110, ECON 111, and MATH 140 or MATH 150

Texts

Recommended:
Varian, Hal R.; "Intermediate Microeconomics, A modern Approach," Any Edition, *W. W. Norton & Company*

Homework

A (very) large number of practice problems will be provided through the course website. Completion of these practice problems is not required; however, you are strongly encouraged to answer all of these questions, both on your own, and again in groups (teaching your classmates how to approach and answer a problem is quite possibly the best way to learn this material). These questions will reflect the type of material which will be presented to you on the quizzes, midterm, and final, and as such, you grade is likely to benefit greatly from your completion of these practice problems.

Grading and Examinations

Quizzes (48% total) – 4 total, 12% each. Take home.
> *Quiz 1 – Assigned: Monday, September 17*
>> *Due: Monday, September 24*
> *Quiz 2 – Assigned: Monday, October 1*
>> *Due: Monday, October 8*
> *Quiz 3 – Assigned: Monday, November 5*
>> *Due: Monday, November 19*
> *Quiz 4 – Assigned: Monday, November 26*
>> *Due: Monday, December 3*

Midterm (26%) – In class: Monday, October 22

Final Exam (26%) – During Finals week. See Final Exam Schedule

Re-grading policy

If I made a mistake summing the points on your exam, please bring it to my attention immediately. Most answers are objective and therefore leave little room for re-grading with the exception of the aforementioned adding errors on my part. Extra credit options will <u>not</u> be made available to students on a case-by-case basis as this would result in differential grading policies across students.

Missed Exam/Quiz Policy

Make-up exams will be held for students who have legitimate and appropriate reasons for having missed an examination. All exam dates are listed on this syllabus.

Academic Honesty

Academic honesty is of the utmost importance, and any academic misconduct will be subject to the strictest enforcement possible.
See http://www.csuci.edu/studentlife/judicial-affairs/academic-dishonesty.htm for more information.

Course Schedule

The below schedule is simply an approximation for the timing with which the material in this course will be presented. Note: "Lesson" as used below, is *not* equivalent to "class meeting" or "week." For example, "Lesson 3" is not necessarily going to take place during the third meeting of this class or during the third week of class.

Introduction
Lesson 0 – Course introduction. Mathematical review (key concepts from calculus that commonly arise in this class).

Part I – Individual Decision Making
Lesson 1 – Introduction to consumer theory. Modeling a consumer's consumption options.
Lesson 2 – Modeling a consumer's preferences graphically, then mathematically.
Lesson 3 – More preference modeling. Utility maximization subject to market constraints.
Lesson 4 – Deriving demand. Comparative statics of demand. The effect of income and price changes.
Lesson 5 – Comparative statics of demand, continued. Compensated price changes and compensated demand functions. Demand relationships amongst goods.
Lesson 6 – Elasticity. Demand estimation in practice. Preferences for "psychological" goods.

Part II – Applications of Individual Decision Making
Lesson 7 – Deciding how much to work, and how hard to work. Designing incentive structures for employees.
Lesson 8 – Choice under uncertainty. Pricing a risky asset. Pricing insurance.

Part III – Firm Level Decision Making
Lesson 9 – Describing a firm's production function. Returns to scale.
Lesson 10 – Describing a firm's costs.
Lesson 11 – The profit function and cost minimization subject to the constraint of the production function.
Lesson 12 – Short run vs. Long run profit maximization. Perfect competition. Monopoly. Comparative statics of production.
Lesson 13 – Pricing strategies: price discrimination, bundling, and two-part tariffs.

Part IV – Game Theory
Lesson 13 – Duopoly competition: price competition, quantity competition, location games.
Lesson 14 – Defining a "game" with players, actions, strategies, information sets, and payoffs.
Lesson 15 – Simultaneous games: finding equilibria in pure strategies via iterated deletion of dominated strategies, and the intersection of best responses. Finding equilibria in mixed strategies.
Lesson 16 – Sequential games. Finding equilibria via backwards programming (looking forward, thinking backward). Games of uncertainty. Finitely and infinitely repeated games.