

45-710, mini 2  
(6 units)

## MANAGERIAL ECONOMICS

Fall 2023

Carnegie Mellon University  
Tepper School of Business

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Office Hours: Sunday 6:00-7:00 pm

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### INTRODUCTION AND OVERVIEW

This is a course in managerial economics. The focus is on how a business manager can use microeconomics to make better decisions. This means that you will not only be expected to understand the theory of microeconomics but you must also be able to apply it.

The basic questions of microeconomics are related to three general topics: consumers, producers and markets. After you leave the Tepper School you will typically get a job working for a firm that produces some good or service to sell to consumers. Producers and the consumers typically agree on prices in a market. There are different types of firms and different types of consumers and different types of markets. What we will cover are the general characteristics common to each.

We will also study how and why consumers trade. The focus will be on identifying gains from trade and the recognition that trade is not a zero-sum game.

We learn how a business firm takes inputs and combines them to make a final good. The important questions are: “How much of each input should be used?” “How should the inputs be combined?” and “How much should the firm produce?” These basic questions are fundamental to every firm.

The final section deals with what happens when consumers and producers meet in a market. We will concentrate on the different types of markets and how the production decision of a firm changes with these different markets.

These questions are fairly basic and their solutions are relatively simple. In class I will present the general approach to these problems and work some examples. In the problem sets you will learn to solve different problems with similar procedures. The goal is for you to be able to take a verbal description of a problem and know how to solve it.

We will use mathematics to solve problems in class and you will be expected to use mathematics to solve problems on problem sets and exams. It is assumed that each of you is familiar with calculus. On exams, I do not want to test your mathematics, hence you can earn “some” credit by giving an answer in which you only set up a mathematics problem which you cannot solve, if you correctly explain how you would have used the answer. It is not possible to pass this course by always using this procedure, but you can get partial credit on some problems.

## TEXTBOOK

Microeconomics ninth edition (ISBN: 978-0-13-418424-1) by Robert Pindyck and Daniel Rubinfeld published by Prentice Hall. (A used copy of the seventh or eighth edition will meet your needs.)

The videos will be a combination of theory, models and applications. The book is a complement to the videos not a substitute. The book is full of wonderful examples.

## PROBLEM SETS

Managerial economics is only learned through working problems. This means you must understand the homework problems and the examples worked in class. Individually working and understanding the problems is beneficial for two reasons. First, this is what you must do to learn economics and be able to apply these concepts in future courses and in your career. Second, the problem sets and the class examples are similar to the problems on the midterm and the final, therefore understanding the problems is needed to earn a satisfactory course grade.

There will be four graded problem sets. In addition, the Canvas site contains some additional questions for practice. You may work in small groups on the problem sets. However, each person must submit their own answers. Copies of someone else's work are not acceptable. Late problem sets are not acceptable, i.e. you will receive a zero.

Your problem set answers should look more like a business document and less like math homework. I am more concerned with how you arrived at the answer than you writing the correct numerical answer. (The answer is never 7. The answer must contain how you arrived at 7.) When reporting answers, you should include the units (e.g., units of output, units of labor, etc.) and currency notation.

Do not consult previous course packets from any part of this course.

The problem sets are available on the Canvas site but will be submitted on Gradescope. Last year's problem sets and solutions are available on the Canvas site with your problem sets.

## EXAMS

Exams will be open book and open notes. You may use laptop computers to view your digital notes. You should not access the internet or other individuals. You may use a simple calculator. You may only use Excel as a calculator. You should not use Solver in Excel, Mathematica, Maple, Matlab, etc.

## GRADING

The final course grades will be determined by the following method:

Problem Set Average	30%
Quizzes Average	10%
Midterm Exam Grade	30%
Cumulative Final Exam Grade	30%.

This will not be changed under any circumstances. Please take your midterm seriously. Final letter grades will be determined by the following scale:

A	90 - 100
B	80 - 89.999
C	70 - 79.999
R(failure)	below 70.

I may choose to curve the final class grades; however, this will not hurt anyone. A curved grade can only be higher than the grade given by the above scale. Plus or minus will be assigned on natural breaks in the distribution of final grades.

## **GRADING PROBLEMS**

If there is a mistake in grading one of your papers (problem sets or exams) you may have your answer regraded. To get a paper regraded, use GradeScope to submit a clearly written explanation of the mistake. The statute of limitations for having your paper regraded is two weeks after the problem set is returned.

## **ACCOMMODATIONS FOR STUDENTS WITH DISSABILITIES**

If you have a disability and are registered with the Office of Disability Resources, I encourage you to use their online system to notify me of your accommodations and discuss your needs with me as early in the semester as possible. I will work with you to ensure that accommodations are provided as appropriate. If you suspect that you may have a disability and would benefit from accommodations but are not yet registered with the Office of Disability Resources, I encourage you to contact them at [access@andrew.cmu.edu](mailto:access@andrew.cmu.edu).

## **TAKE CARE OF YOURSELF**

Do your best to maintain a healthy lifestyle this semester by eating well, exercising, avoiding drugs and alcohol, getting enough sleep and taking some time to relax. This will help you achieve your goals and cope with stress.

If you or anyone you know experiences any academic stress, difficult life events, or feelings like anxiety or depression, we strongly encourage you to seek support. Counseling and Psychological Services (CaPS) is here to help: call 412-268-2922 and visit <http://www.cmu.edu/counseling/>. Consider reaching out to a friend, faculty or family member you trust for help getting connected to the support that can help.

## Course Schedule for Managerial Economics Fall 2023

	DATES	TOPICS	TEXT	COMMENTS
access week quiz	Oct 21, 22, 26 Oct 27-Nov 1	Economic Profits and Producer Theory Econ. Profits and Prod. Theory	p.215-228 and Chapter 6	Quiz
quiz prob set zoom	Oct 27-Nov 1 Nov 1 Nov 2	Cost Curves and Supply Curve Synchronous Session	p.267-280	Quiz Problem Set 1
quiz prob set zoom	Nov 3-8 Nov 8 Nov 9	Demand and Short-run Equilibrium Synchronous Session	p.109-117,122-133,280-288 (scan Appendix Chapter 4)	Quiz Problem Set 2
quiz zoom	Nov 10-15 Nov 16	Government Intervention Synchronous Session	Chapter 9	Quiz
exam	Nov 18-19	<b>Midterm (90 minutes)</b>		Exam
quiz prob set zoom	Nov 24-29 Nov 29 Nov 30	Monopoly and Market Power Synchronous Session	p.347-372	Quiz Problem Set 3
quiz prob set zoom	Dec 1-6 Dec 6 Dec 7	Strategic Interactions (Game Theory) Synchronous Session	p.479-508, 448-474	Quiz Problem Set 4
quiz zoom	Dec 8-13 Dec 14	Information Economics Synchronous Session	Chapter 17	Quiz
exam	Dec 16-17	<b>Cumulative Final Exam (120 minutes)</b>		Exam